

THE EVOLVING LANDSCAPE OF “RISK TRANSFER”

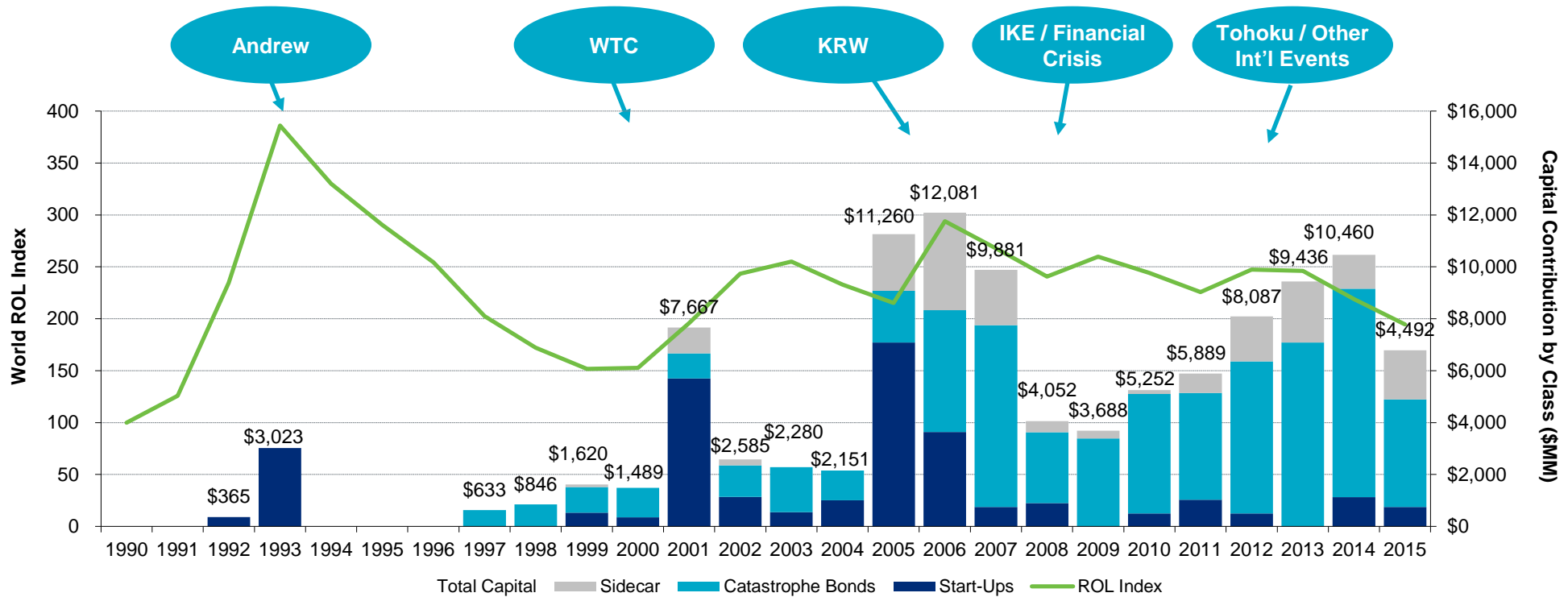
Risk Capital: A Reinsurance Perspective

November 4, 2015
Federal Advisory Committee on Insurance

Presented by Jake Clark of Guy Carpenter & Co., LLC

Evolving Reinsurance Industry Capital Model

The evolving capital markets and continual growth of alternative risk transfer markets has changed the competitive landscape

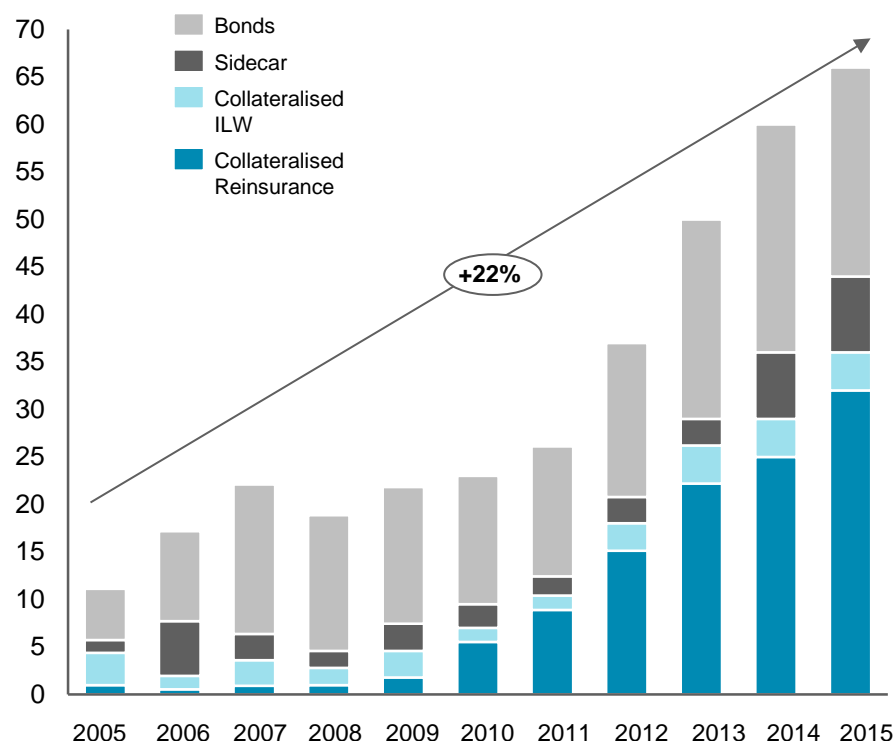


Note: SNL Financial, Company filings and Insurance insider.

The Changing Reinsurance Arena

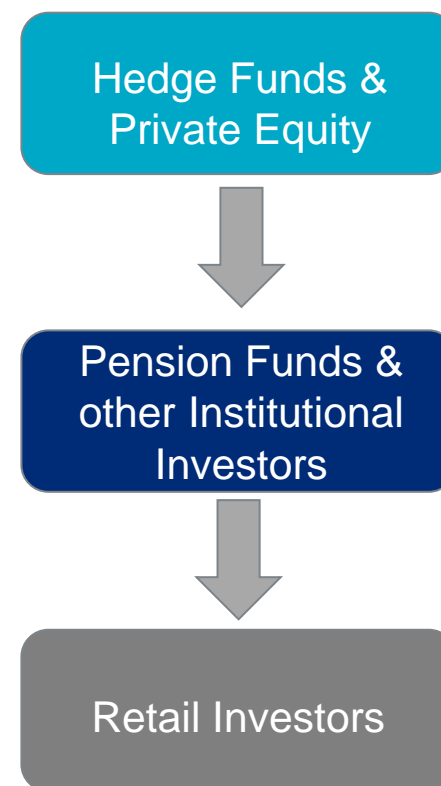
Influx of Third Party Capital

Third party capital deployed
2005-2015 YTD, \$BN



Source: Guy Carpenter, Oliver Wyman analysis

The suppliers of alternative capital to the re)insurance sector have evolved since 2005 as reinsurance returns have fallen



An Expanding Field – Blending of the two models

Reinsurance companies [\$334bn dedicated capital] have active ventures and / or direct access to alternative capital representing over \$[15] billion of capacity

Independent (re)insurance capital markets players manage approximately \$66 billion of additional capacity

Reinsurance markets with Alternative Capacity



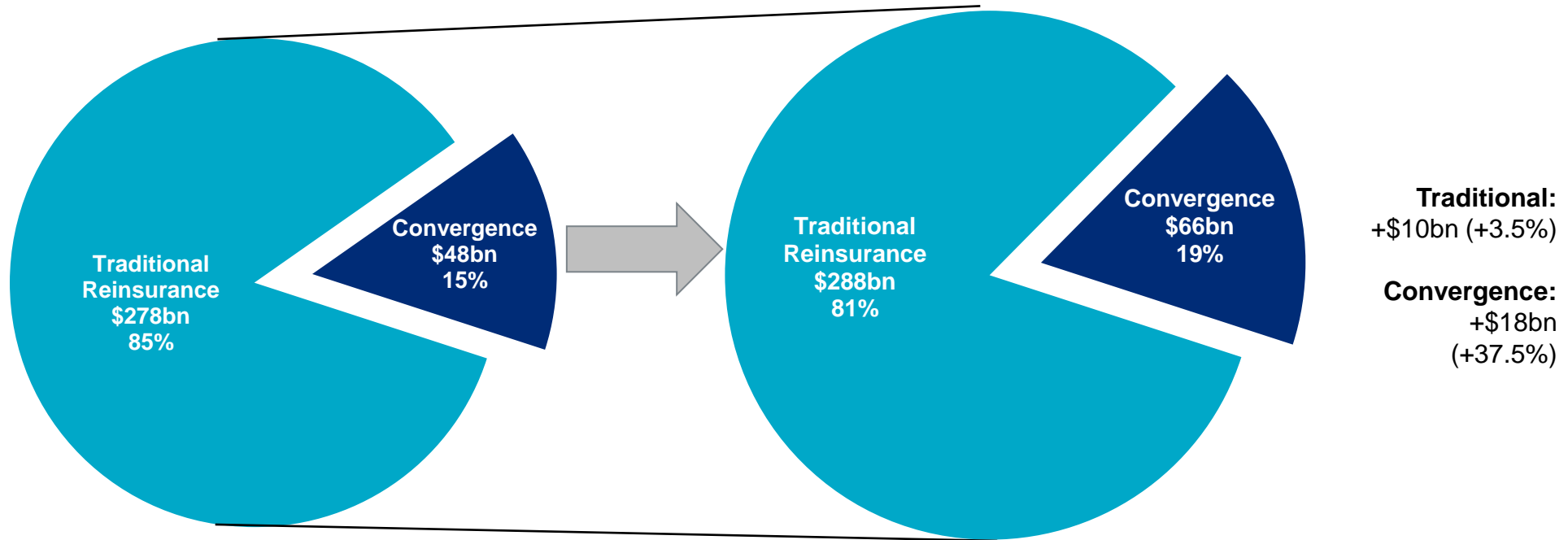
Independent capital market managers



Capital Markets Participation In Reinsurance Year over Year

Increased Deployment of Convergence Cat Capacity

+8.0% YoY
Deployed Catastrophe Limit Growth



To date convergence capacity deployment has been almost exclusively in catastrophe lines, however, these markets continue to express interest in diversifying to other segments

Worldwide Property Catastrophe Market 2015 Estimate @ July 1st



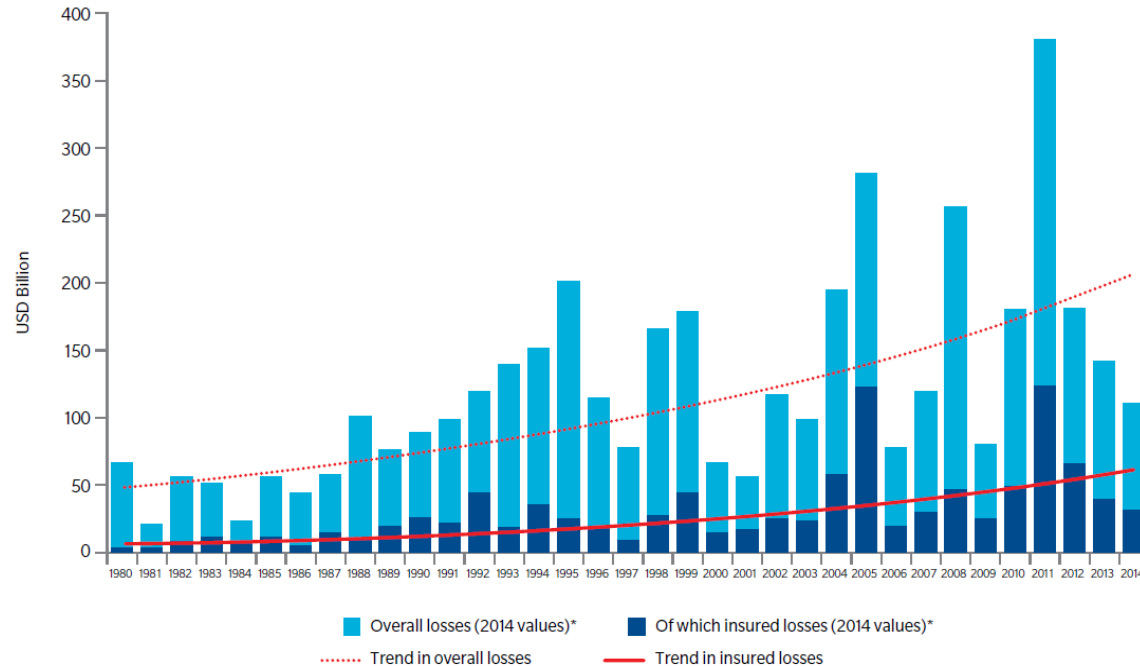
Global Cat Market

Limit	\$354B
Premium	\$19.8B
RoL	5.6%

Reinsurance Market Dynamics and Future Outlook

- **Rating agency / regulatory capital requiring “rated carriers” to hold more capital**
- **Insurers / Reinsurers seeking to use non equity capital to warehouse business in current competitive pricing environment**
- **Hedge Funds / Private Individual facilities using a capitalized reinsurance vehicle as a way to lock in assets and obtain tax deferred income.**
- **New investors are seeking insurance risk, but the asset class may not be large enough to support investor demand (limited supply of reinsurance)**

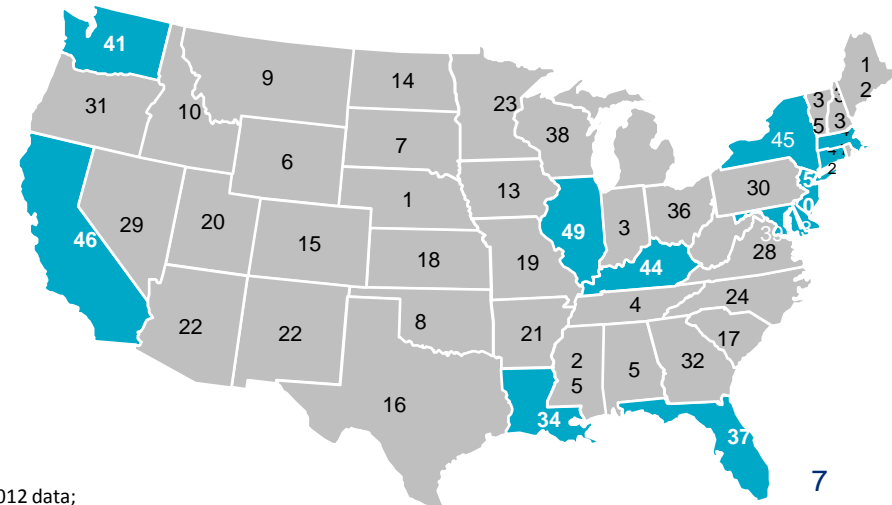
Closing “The Gap” Economic vs Insured Loss



- 73% (\$2.7T) of nat-cat losses globally between 1970-2014 were uninsured
- Global economic loss outpacing the deployment and/or recovery of insurance products.
- HU coverage is on the decline EQ's are almost entirely uninsured.

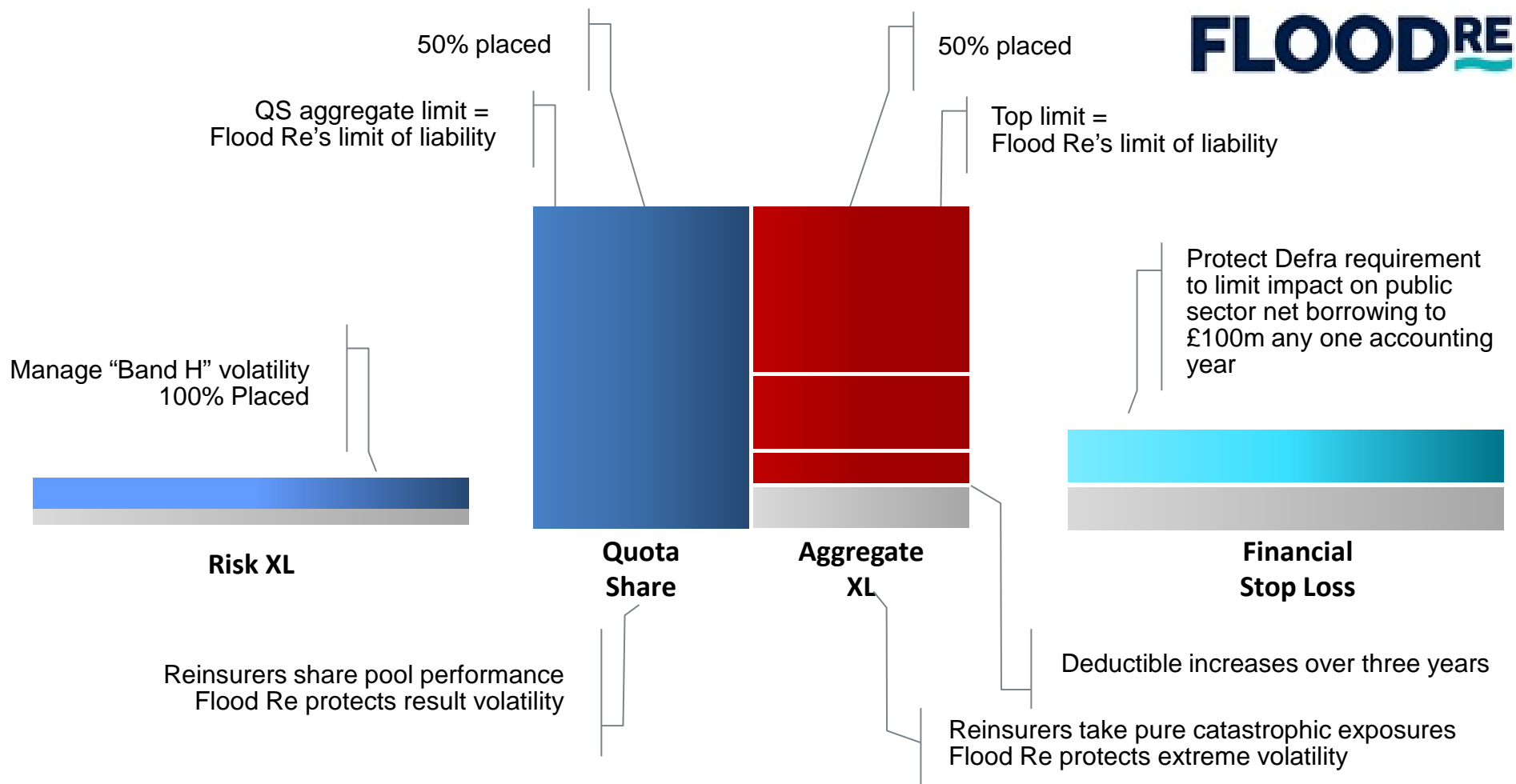
- Some of the nation's most catastrophically exposed states have long-term financial challenges.
 - Northeast: Wind / Flood
 - CA & IL: EQ / Flood
 - Gulf / South: Wind / Flood
- Federal government has accrued \$10.9 trn in debt since 1980 alone
- Exposure to natural catastrophe risk is unsustainable

Ranking of States by Long-Run Solvency (2012)



Challenge #1: Flood Risk Management

The UK's Flood Re – Potential Outwards Reinsurance



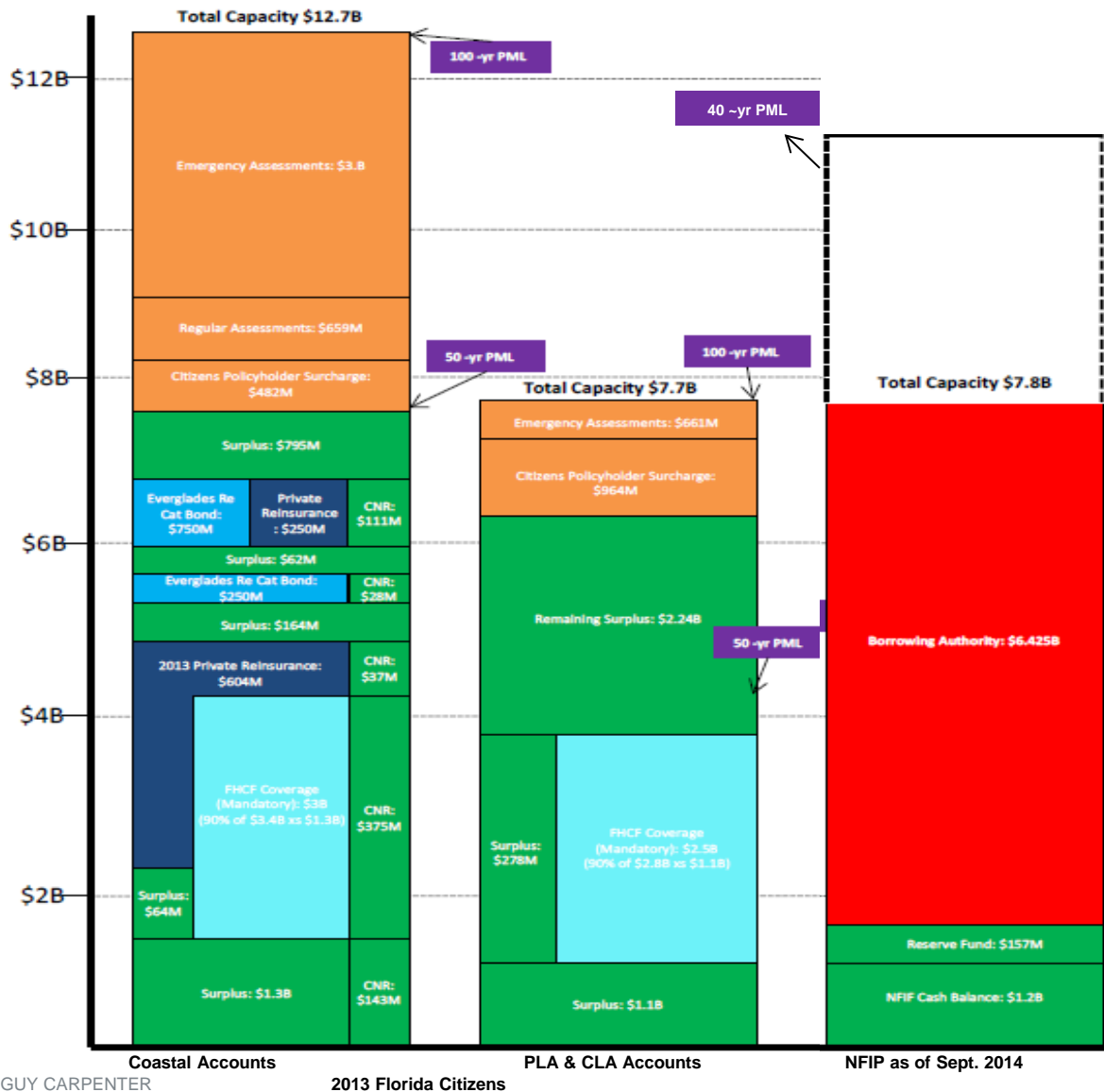
"In the face of the rising flood risk, we have estimated that 350,000 flood risk UK households would struggle to obtain affordably priced flood insurance without a scheme like Flood Re."

Challenge #1: Flood Risk Management

The NFIP & The Flood Insurance Risk Study



FEMA



- **Flood Insurance Risk Study**
 - Required under BW'12:
 - How to privatize
 - How to utilize reinsurance
 - Dynamic risk analysis
- **Peer analysis**
 - Compare risk financing employed by the NFIP & other large buyers of reinsurance
 - NFIP vs. FLA Citizens (2013)

Challenge #2: EQ Underinsurance

Significant and Systemic Economic Risk to Governments

- Missouri State Insurance Director, John Huff: *"We have reached a critical juncture...the amount of uninsured property in MO will soon eclipse the amount of insured residential property (\$100B), this could jeopardize our ability to fully recover from a major earthquake."*



Challenge #2: EQ Underinsurance

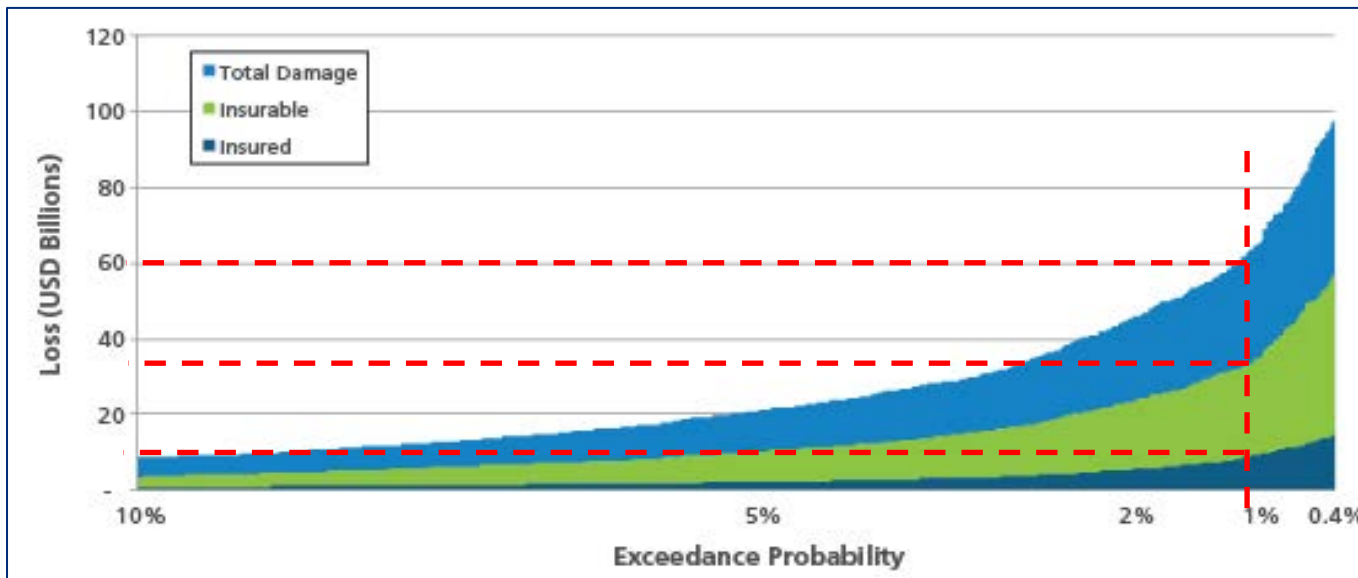
Significant and Systemic Economic Risk to Governments

- 1:100 California EQ event suggests residential insured losses of \$10bn vs. \$60bn assuming 100% take-up
- Earthquake take-up low b/c market is inefficient: expensive and limited coverage

Global Property Cat Limit Issued

> \$354 billion

While GSE's are expanding use of mortgage reinsurance to expand risk sharing around credit default exposure, these approaches offer limited protection against losses arising from EQ



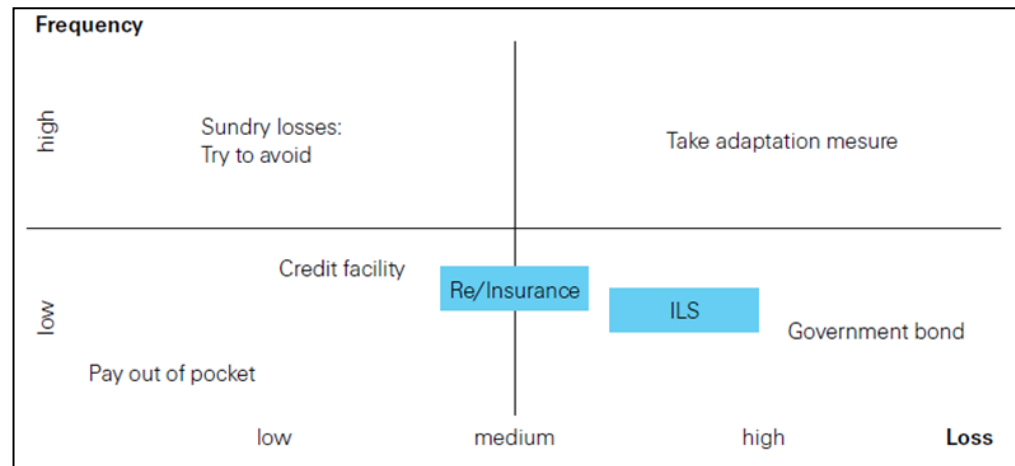
Source: AIR WORLDWIDE

Comparison of modeled total damage, insurable loss (total damage minus deductibles and limits, assuming a 100% take-up rate), and insured loss for the residential line of business on an annual aggregate basis (Source: AIR Worldwide)

Creating A New Paradigm to Address Catastrophic Risk

Supporting the Creation of Public Private Partnerships

- Public-Private-Partnerships (PPPs) can open new opportunities to unlock risk capital and expand risk transfer solutions. Partnering is key to tackle the most pressing challenges of the day.
 - New thinking by insurance professionals, capital providers, policymakers, and regulators is required to create win-win arrangements
- A variety of risk-capital and related risk management services are required to address the growing level of risk faces by society in today's world so that more resilient risk transfer solutions can evolve.
- Innovative risk transfer approaches through PPP's have evolved to tackle pressing nat-cat related risks and terrorism risk.
- Unique attributes from a variety of stakeholders (the public, private sector (re)insurance, ILS capital, and governmental entities) can be harnessed to bring innovative risk financing solutions to bear across a variety of other pressing risks as well.



Source: Swiss Re

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