



# Marine Underwriting and Reinsurance Market Trends

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October 2014

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# Today's Agenda



Today's P&C Reinsurance Market



Marine in Today's Market



Emerging Marine Underwriting Issues



Closing Points



# Today's P&C Reinsurance Market

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Economic Forces at Play in the Industry



### *News*

There has been more change in the property/casualty reinsurance business in the last 2 years than the prior 25.

Dowling



### *News*

Pressures on many fronts including oversupply of capacity, new entrants, substitute products, low interest rates, greater bargaining power of buyers.

Moody's



### *News*

**Reinsurers are being paid less and less to bear risk.**

**A.M. Best**





### *News*

# The traditional reinsurance business model is under threat.

S&P

# Making Sense of the Headlines



Today's Reinsurance Market – Economic Forces at Play in the Industry



**Results**



New Capital



Market Impact



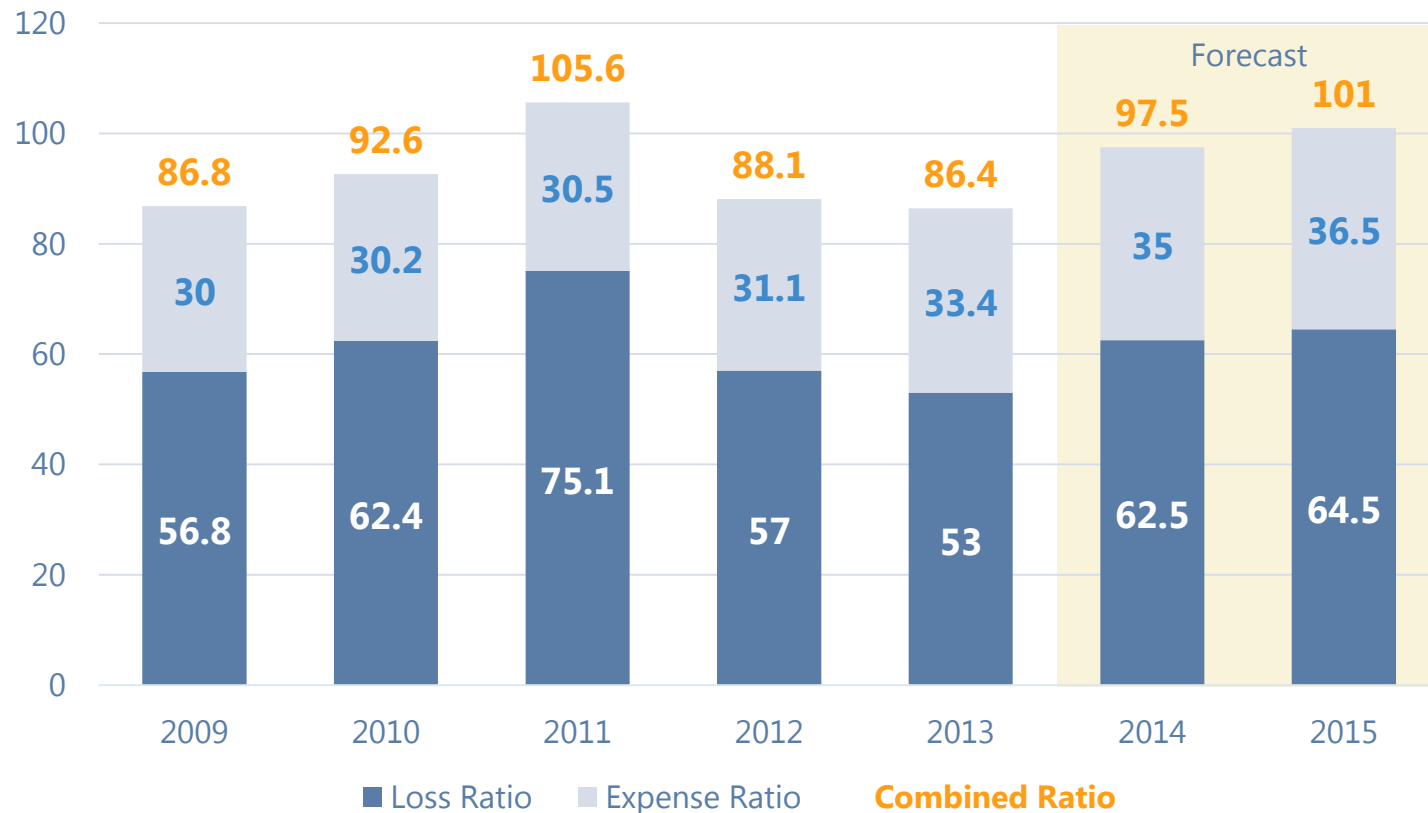
Emerging Strategies

# Reinsurance Industry Results 2009-2014



Today's Reinsurance Market – Economic Forces at Play in the Industry

## Global Reinsurance – Combined Ratios



Source: Standard and Poor's

# Keys to Interpreting Recent Results



## Today's Reinsurance Market – Economic Forces at Play in the Industry

### Expense Ratios are growing

- Lower premium volume in many cases
- Higher acquisition costs (ceding commissions) with shift toward Proportional

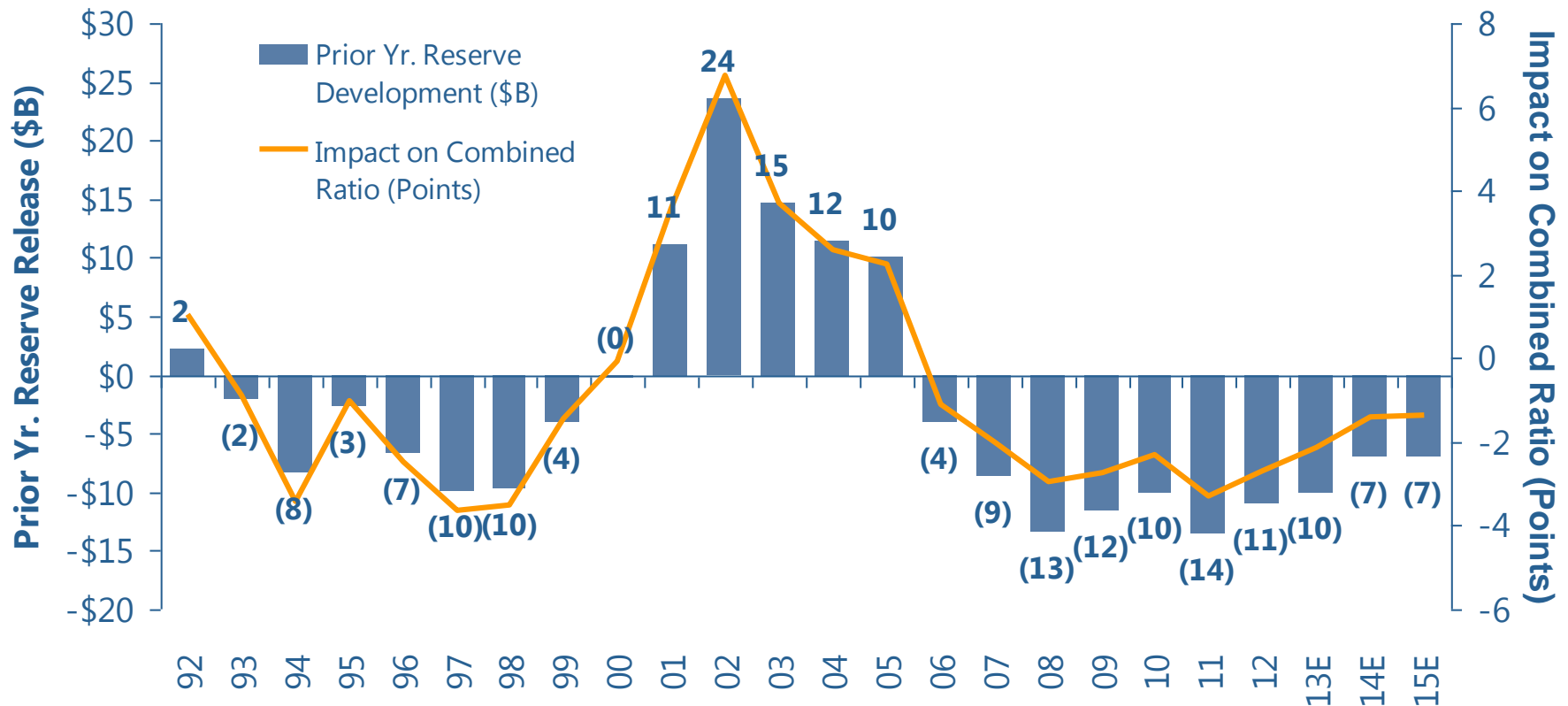
### Loss Ratios appear better than they really are

- Significant benefit of reserve releases over the last 5 years may be over
- Natural catastrophe losses in 1H 2013 & 2014 were 20% below 10-year average

# P/C Reserve Development, 1992–2015E



Today's Reinsurance Market – Economic Forces at Play in the Industry

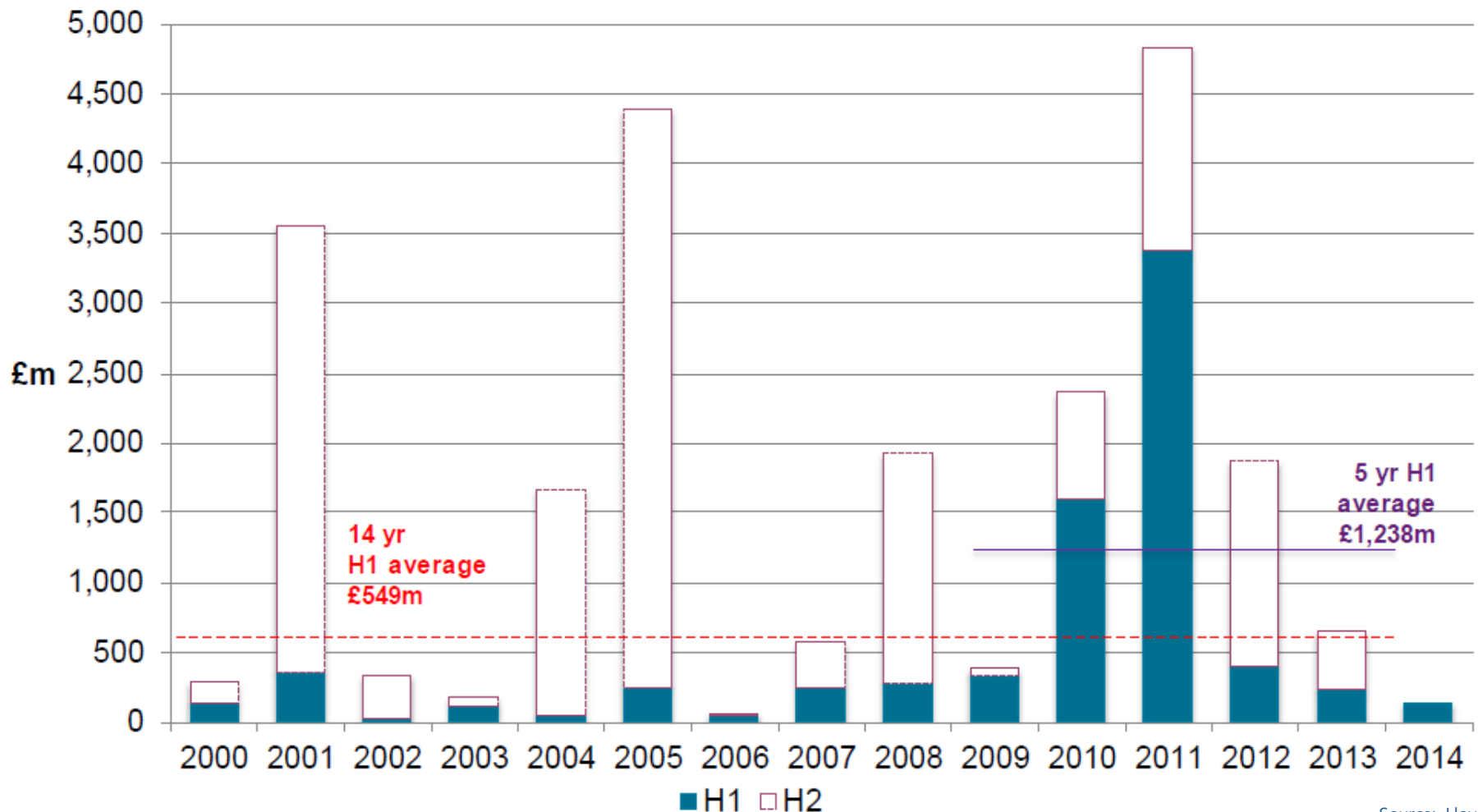


Source: A.M. Best, ISO, Barclays Research (estimates for 2013–2015). Insurance Information Institute

# Catastrophe Losses – Actual vs. Expected

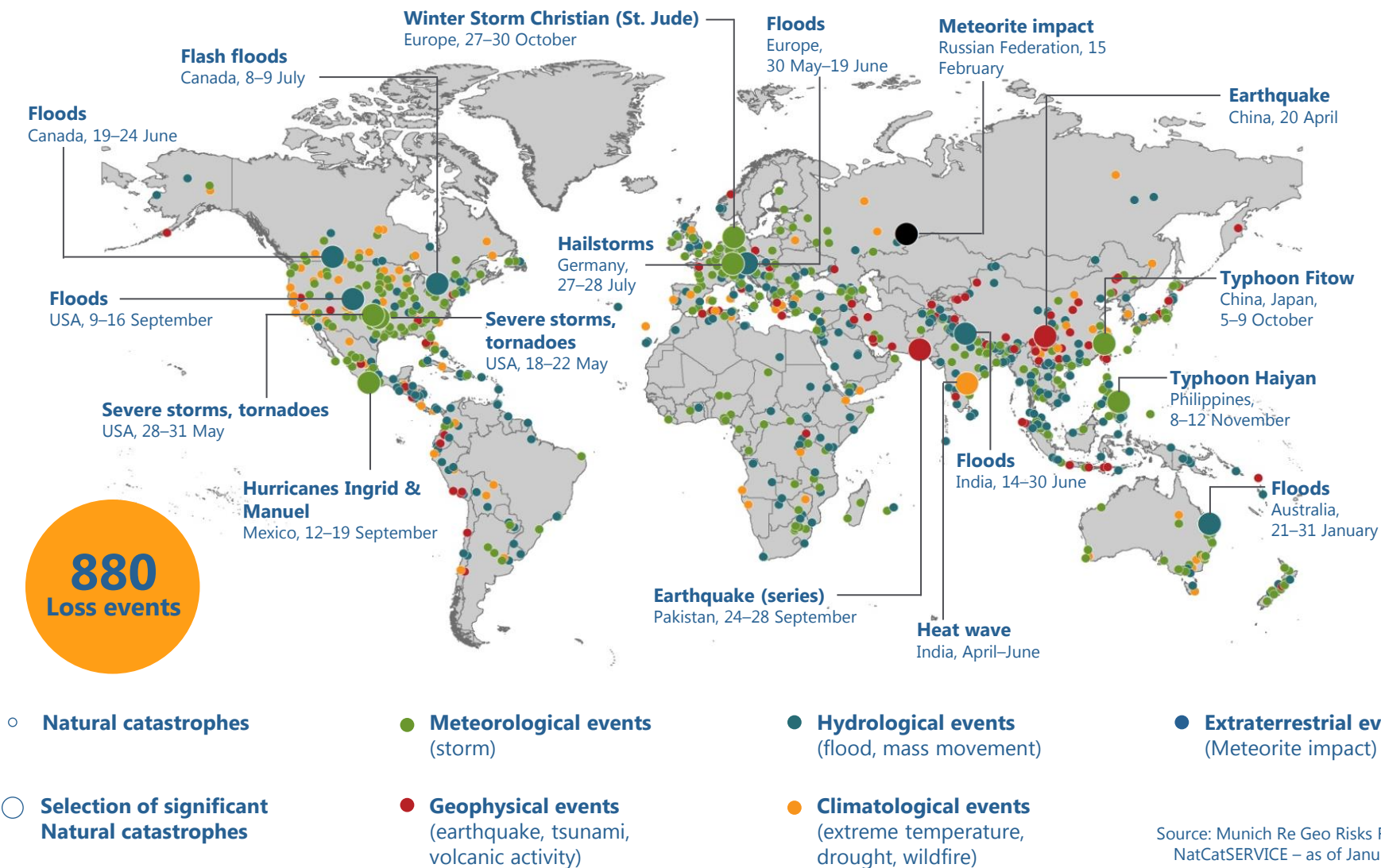


## LLOYD'S MAJOR CLAIMS: NET ULTIMATE CLAIMS



Source: Lloyd's

# Natural Loss Events – Full Year 2013



# We've Been Lucky – More Events but Less Damage



Today's Reinsurance Market – Economic Forces at Play in the Industry

## Global Natural Catastrophe Update – Loss Events Worldwide 2014 Overview and Comparison with Previous Years

	2014 (Jan – June)	2013 (Jan – June)	Average of the Last 10 Years 2004-2013 (Jan – June)	Average of the Last 30 Years 1984-2013 (Jan – June)
Number of Events	<b>490</b>	<b>470</b>	410	315
Overall Losses in US\$ m (Original Values)	<b>42,000</b>	<b>66,000</b>	95,000	66,000
Insured Losses in US\$ m (Original Values)	17,000	21,000	25,000	15,000
Fatalities	2,700	9,100	53,000	30,000

Source: Munich RE



# Making Sense of the Headlines



Today's Reinsurance Market – Economic Forces at Play in the Industry

Results

**New Capital**

Market Impact

Emerging Strategies



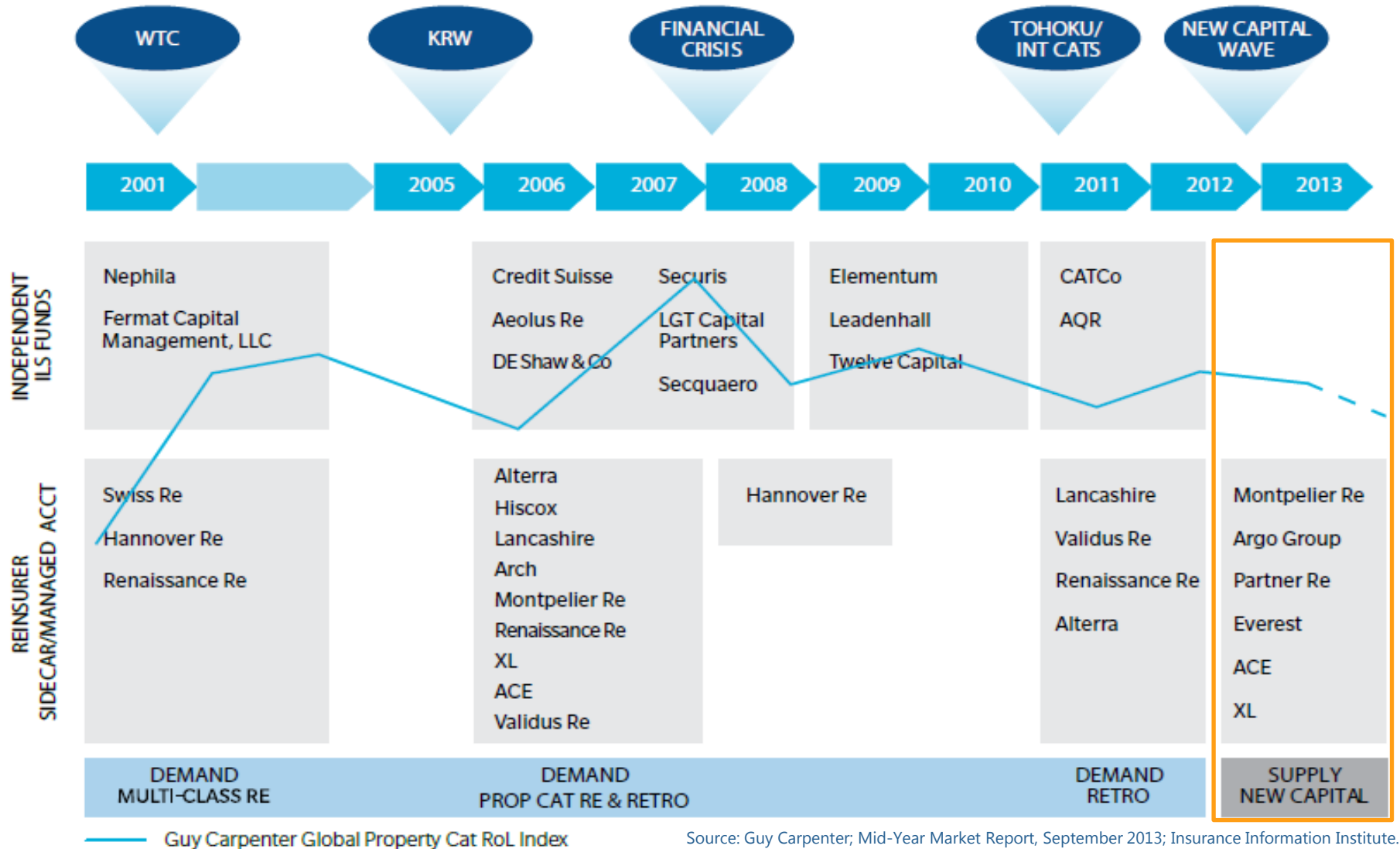
### Alternative Reinsurance Market

Alternative reinsurance is effectively any form of managing and transferring (re)insurance risk through the use of the capital markets rather than the traditional reinsurance market. These nontraditional structures commonly include catastrophe bonds (cat bonds), collateralized quota-share reinsurance vehicles (sidecars) and industry loss warranties (ILWs).

Alternatives to traditional reinsurance essentially began following Hurricane Andrew in 1992, the first cat bond in 1994, and later sidecars in 2001, following the events of Sept. 11, 2001. The market began to grow significantly following Hurricane Katrina in 2005.

Source: Fitch Ratings; Insurance Information Institute, shortened by Andrew Flitcroft/Takashi Ishii

# Alternative Capacity Development, 2001-2013:H1



Source: Guy Carpenter; Mid-Year Market Report, September 2013; Insurance Information Institute.

# New Capital – Classes of 2013 & 2014



## Today's Reinsurance Market – Economic Forces at Play in the Industry

### Who?

- Previously limited to Private Equity and Pension Funds
- Now including Hedge Funds and other professional asset managers, in some cases in partnership with existing insurance companies (e.g. ACE & BlackRock)

### What?

- Catastrophe Bonds, Industry Loss Warranties, Sidecars, Offshore Collateralized Reinsurance Vehicles (e.g. Greenlight Re)
- Targeted class of business was initially Property Cat, now spreading to low-severity Casualty, and Specialty Lines

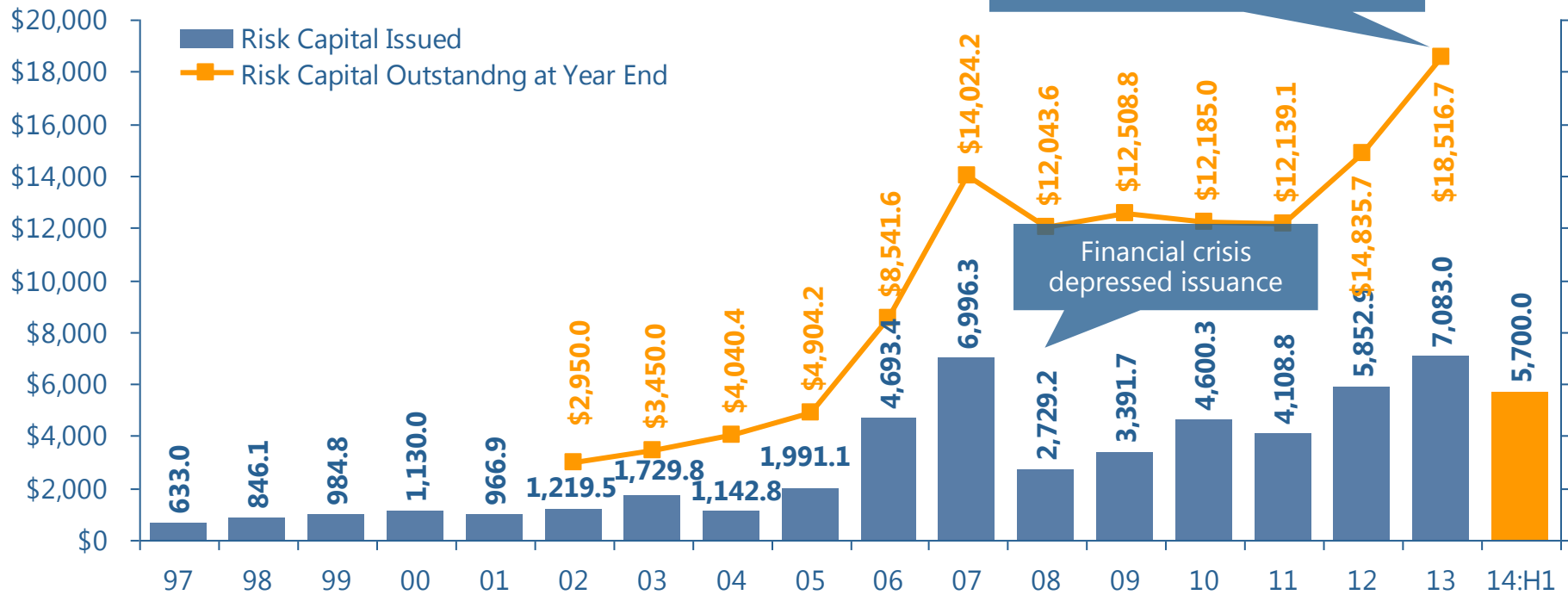
### Why?

- Results appear to have been good
- Perception of insurance risk as a means of non-correlated diversification
- Superior nominal rates of return relative to other interest-bearing investments
- For fund managers:
  - Reserves as a source of “permanent” capital
  - Tax-free growth of capital while offshore
  - Profits receive preferential capital gains treatment regardless of whether eventually repatriated or IPO

# Catastrophe Bonds – Issuance and Outstanding, 1997-2014:Q2\*



Risk Capital Amount (\$ Millions)



Risk capital outstanding reached a record high in 2013

Financial crisis depressed issuance

**Catastrophe Bond Issuance Is Approaching Pre-Crisis Levels While Risk Capital Outstanding Stands at an All-Time Record**

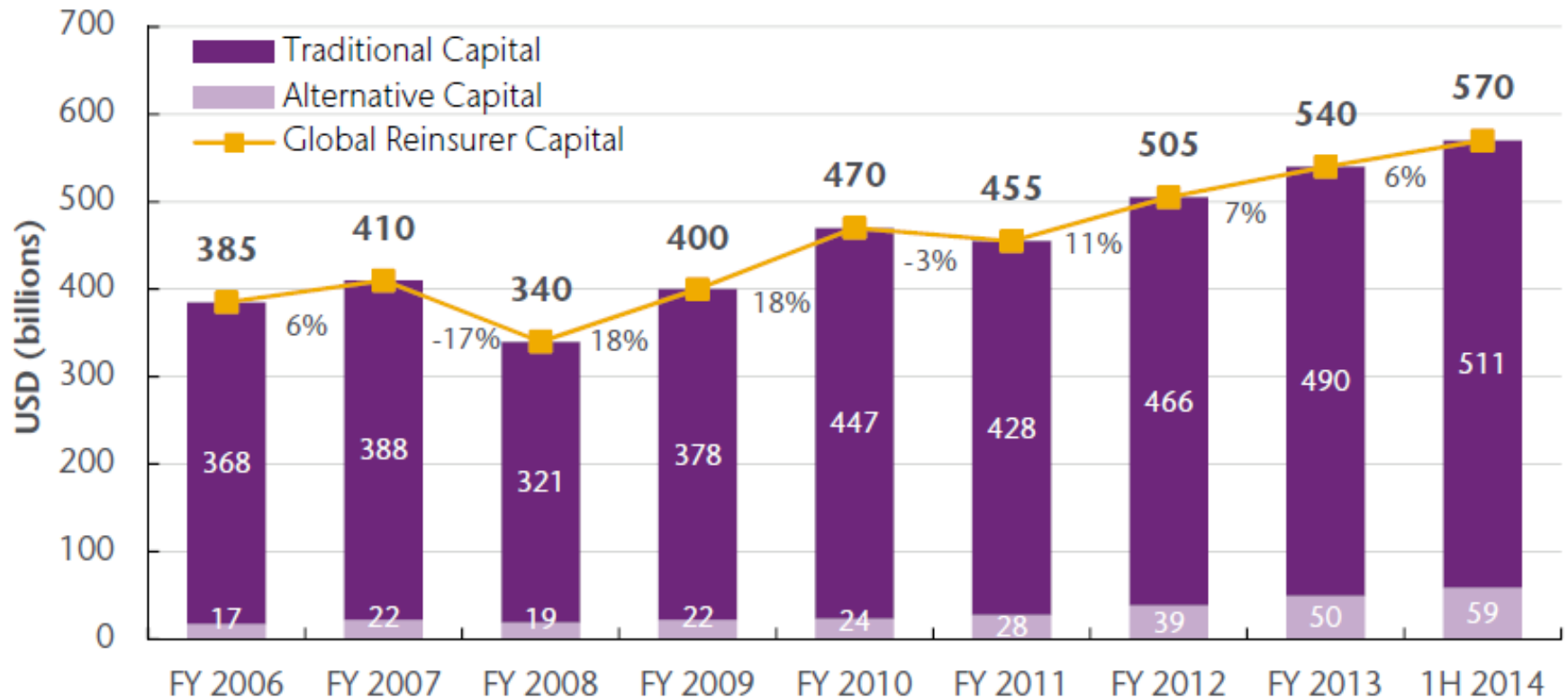
CAT bond issuance reached a record high in 2013 and could set a new record in 2014

\*Through June 30, 2014.  
Source: Guy Carpenter; Insurance Information Institute.

# Alternative Capital Growing as % of Industry Total



## Global Reinsurer Capital



Source: Company reports, Aon Benfield Analytics



### The Case For

- Diversifies away from reliance on traditional reinsurers
- Fully collateralized
- Abundant capital (for now)
  - Recent launches have easily raised \$500m - \$1B
- It's cheap
  - "Lower cost of capital"
  - Lower return expectations (12% ROE vs. 3.5% over LIBOR)

### The Case Against

- ILS complexity, uncertainty, basis risk
- No relationship = willingness to pay is untested
- No expertise to add or local presence to understand client's business
- Longevity at current volumes questionable
  - When interest rates rise
  - When losses inevitably occur
  - When managers can cash out

# Making Sense of the Headlines



## Today's Reinsurance Market – Economic Forces at Play in the Industry

Results

New Capital

**Market Impact**

Emerging Strategies





Reinsurance rates down consistently around the world with just a few exceptions

Loss Ratios are up despite **BELOW AVERAGE** Natural Catastrophe activity

**Expense Ratios  
also up due to**

- Declining premium volumes in some cases and
- Rising ceding commissions on proportional business

**Extent depends  
on each  
company's  
business model**

- Traditional reinsurers vs. CAT specialists (e.g. Renaissance Re and Montpelier)
- Narrow focus of specialists puts all the power in the hands of buyers and brokers

**Reinsurance  
Brokers**

- Client expectations increasing
- Not immune and frequently need to cut brokerage and throw in services to avoid or win RFPs
- Influence over reinsurers grows as they become more desperate



### Contract erosion is the Pandora's Box of a soft reinsurance market

#### Examples

- Event hours clause extension
- Terrorism & Cyber exclusions missing
- Sole judge language added
- Coverage for risks below retention
- Missing standard industry contract clauses



**All of these amount to a form of a rate decrease, but they:**

- Are more difficult to track and quantify
- Take time to show up in results
- Will definitely have an effect on reinsurers loss ratios over the next few years
- Are difficult to fix and will lead to disputes

# Soft Market Cycle or New Normal?



# Theories on What's Next?



## Today's Reinsurance Market – Economic Forces at Play in the Industry

### Interest rates rise

#### Mega Catastrophe turns the market

- Depends on size and health of balance sheets at the time of the event
- Over \$100 Billion in CAT losses in 2011 only temporarily slowed market softening
- Likely that some capital providers would “double down” based on expectations for future profits

#### Death by a Thousand Cuts

*“It is only a question of time before (re)insurers have to shoulder the consequences of their underwriting policies”*

*Nikolaus Vom Bomhard, Munich Re CEO*

# Theories on What's Next?



## Today's Reinsurance Market – Economic Forces at Play in the Industry

### Mergers and Acquisitions

*"Came up a lot more frequently than we'd anticipated"*

*Keefe, Bruyette and Woods  
at Monte Carlo Rendez-Vous*

*Some (re)insurers may "come to the conclusion that their business model is no longer appropriate given the current market circumstances"*

*David Cole, CFO Swiss Re*

### New Normal

*"Over time, if the alternative capital that has come into the market stays in a meaningful way, the expectation is that we would see a permanent erosion of profit margins."*

*Martyn Street, Senior Director, Fitch*

# Making Sense of the Headlines



## Today's Reinsurance Market – Economic Forces at Play in the Industry

Results

New Capital

Market Impact

Emerging Strategies



### Take advantage of the buying power

- Opportunistic purchases to lower net during period of deteriorating results
- Volatility is still there despite lull in CATs

### Be wary of strategic changes to pricing models

### Maintain long-term reinsurer relationships

*"The use of reinsurance at the bottom end of a cycle is a critical factor in managing the portfolios. And anybody who thinks that they can retain larger amounts of their business unprotected at this stage of the cycle, I think you should suggest they need some medical attention"*

*John Charman, Endurance CEO*

*However, "there is no winning [long term] strategy through arbitrage"*

*Stefan Holzberger, A.M. Best Europe*



# Soft Market Strategies – Sellers (not recommended)





# Soft Market Strategies – Sellers



Today's Reinsurance Market – Economic Forces at Play in the Industry

Embrace 3rd party capital model to deliver scale

Increase retrocession purchase to lower net effect

**Pull Back from  
commoditized  
lines**

*Pursuing reinsurance growth in this market is a "fool's game"*

*Bronek Masojada, Hiscox CEO*

# Soft Market Strategies – Sellers



## Today's Reinsurance Market – Economic Forces at Play in the Industry

### Replacing lost business with more emphasis on

- Casualty and Long-Tail Business
- Specialty Lines including Marine
- Accident and Health
- Emerging markets

### Expand existing or get into primary insurance operations

### Focus on markets with low insurance penetration and high growth rates

### Strengthen resolve toward value-added relationship model

*This market “will divide the market between those who focus on the client and those who focus on the product.” – Charles Franks, Kiln CEO*



# Marine In Today's Market

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Impact on Marine Specifically

# How Marine Stacks Up in this Environment



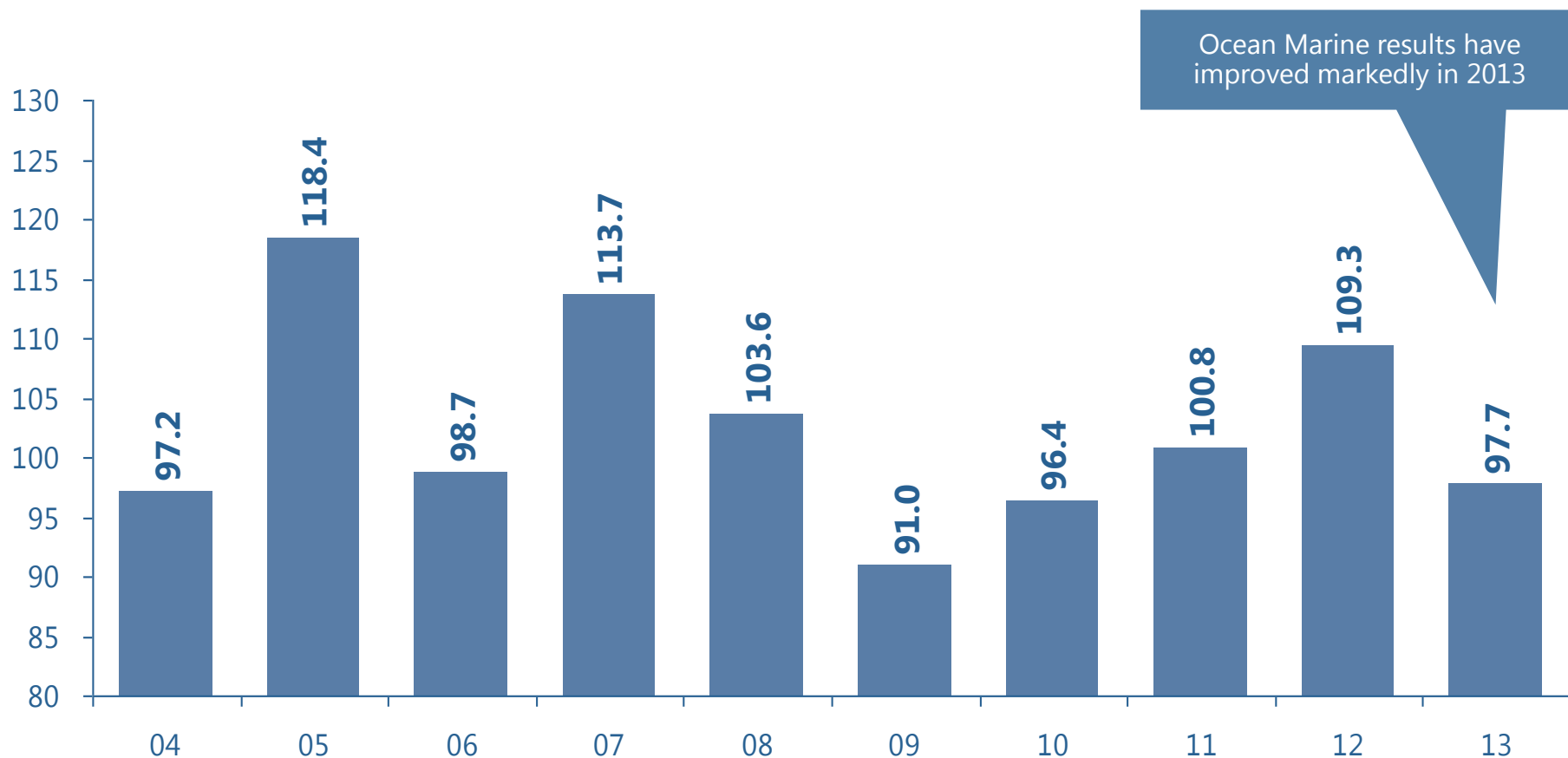
## Today's Reinsurance Market – Impact on Marine Specifically

### Parallels with rest of P&C

- Relative absence of large losses in 2013
- Rising non-CAT loss ratios
- Abundant capacity from new underwriting markets
- Decent 2013 result fueling unhealthy sense of complacency

# U.S. Ocean Marine Combined Ratio

## 2004-2013



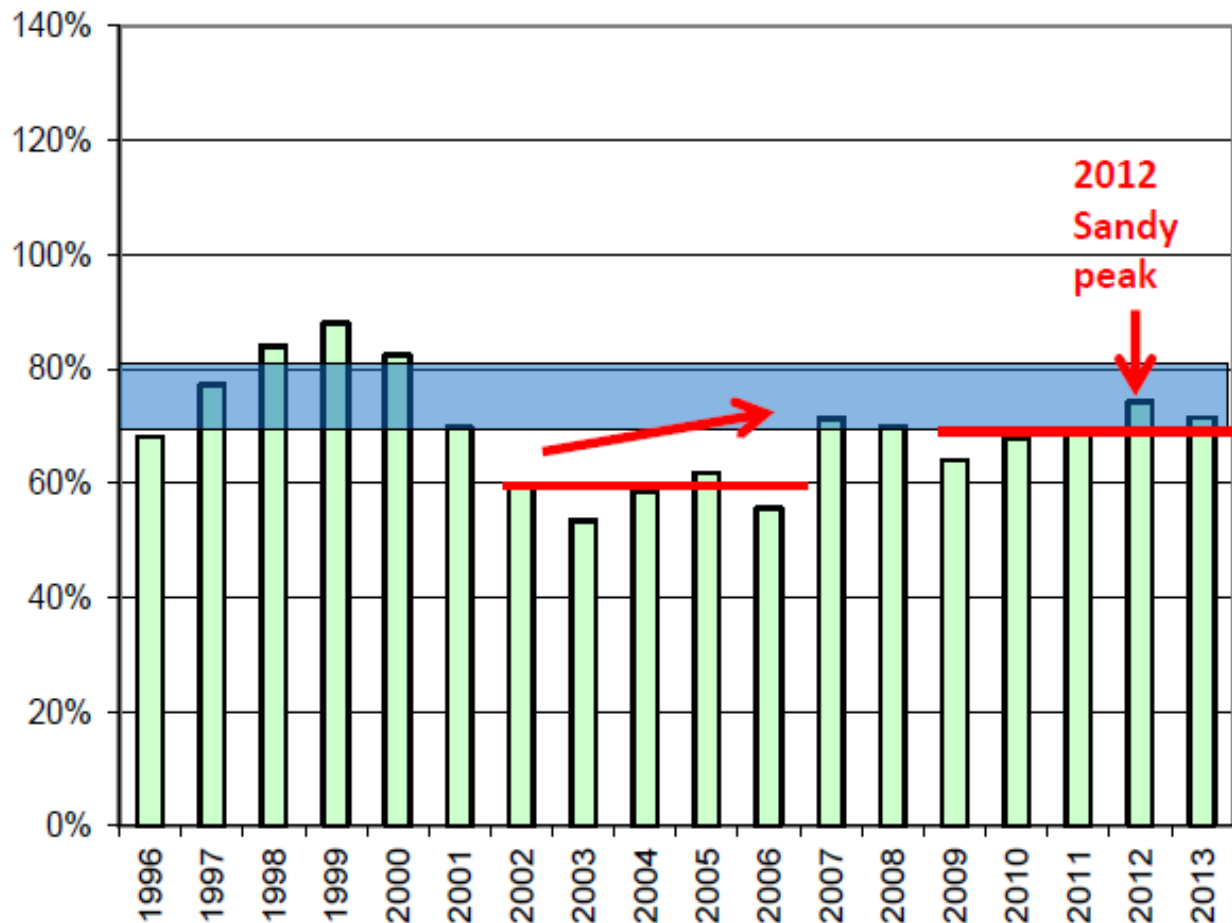
**Ocean Marine Results Have Been Quite Volatile Over the Past Decade, with the Combined Ratio Ranging by More than 20 Points**

Sources: A.M. Best; Insurance Information Institute.

# Cargo Loss Ratios Have Deteriorated



## Cargo – Gross\* Ultimate Loss Ratio Europe/USA\*\*, Underwriting Year 1996-2013



### Since 2007:

- Deterioration of good 2002-2006 results

### 2009-2013:

- 2011-2013 start at about 72%
- 2012 Sandy affects mainly US

\* Technical breakeven: gross loss ratio does not exceed 100% minus the expense ratio (usually 20%-30% acquisition cost, capital cost, management expenses)

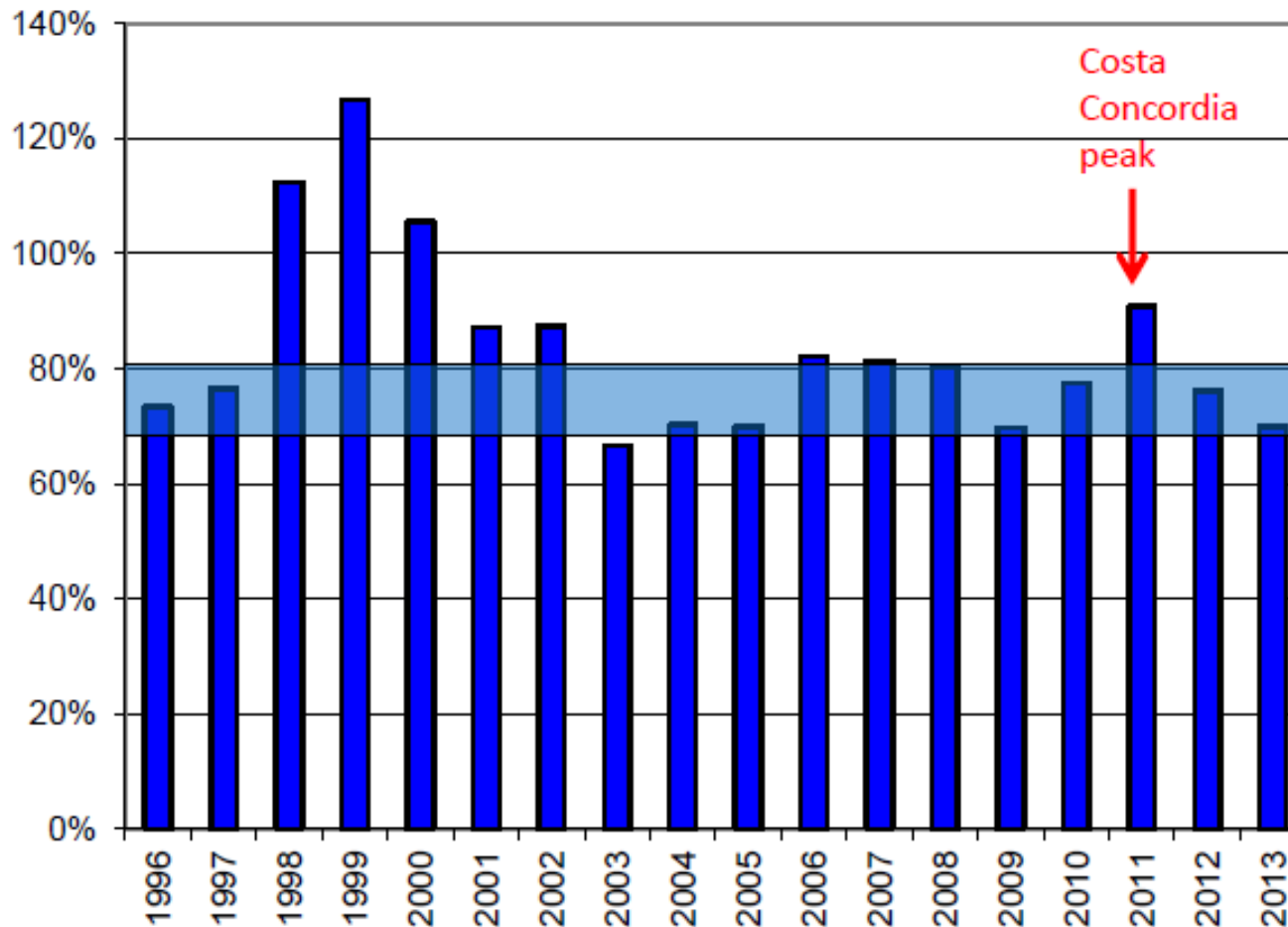
\*\* Data: Belgium, France, Germany, Netherlands, Italy, Spain (until 2007), UK, USA

Sources: IUMI Facts and Figures Committee

# Hull Loss Ratios Continue to Be Terrible



**Hull – Gross\* Ultimate Loss Ratio**  
Europe/USA\*\*, Underwriting Year 1996-2013



## 2011:

- Strong major loss impact (Costa Concordia and others)

## 2012/2013:

- Less major loss impact as in 2011

## 2013

- Improvement, but technical result still at loss (18<sup>th</sup> year)

\* Technical breakeven: gross loss ratio does not exceed 100% minus the expense ratio (usually 20%-30% acquisition cost, capital cost, management expenses)

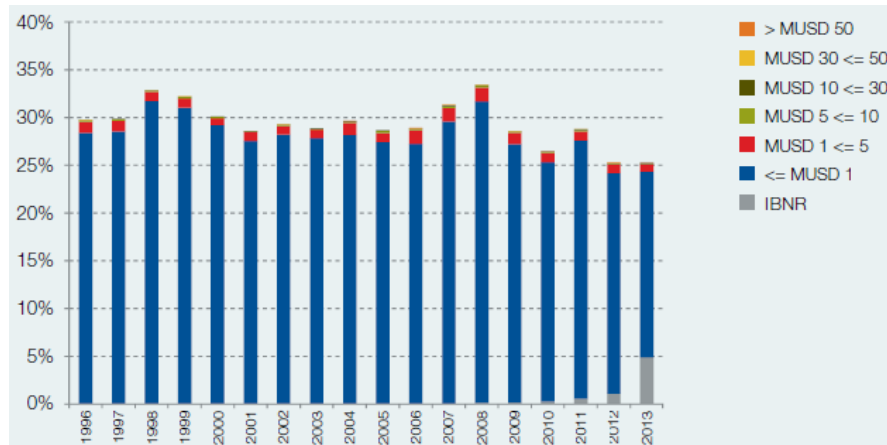
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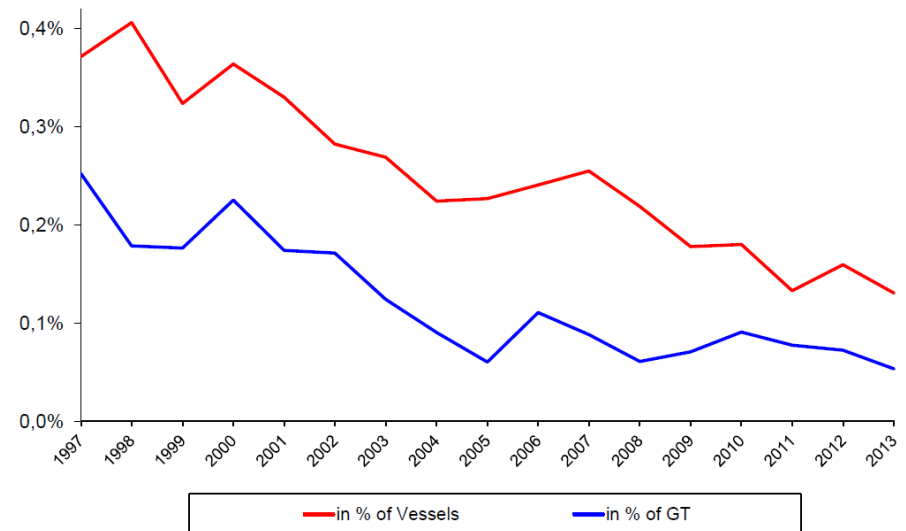
# While Declining Loss Frequency Tells One Story



## Claim Frequency by Size of Claims



## Total Losses



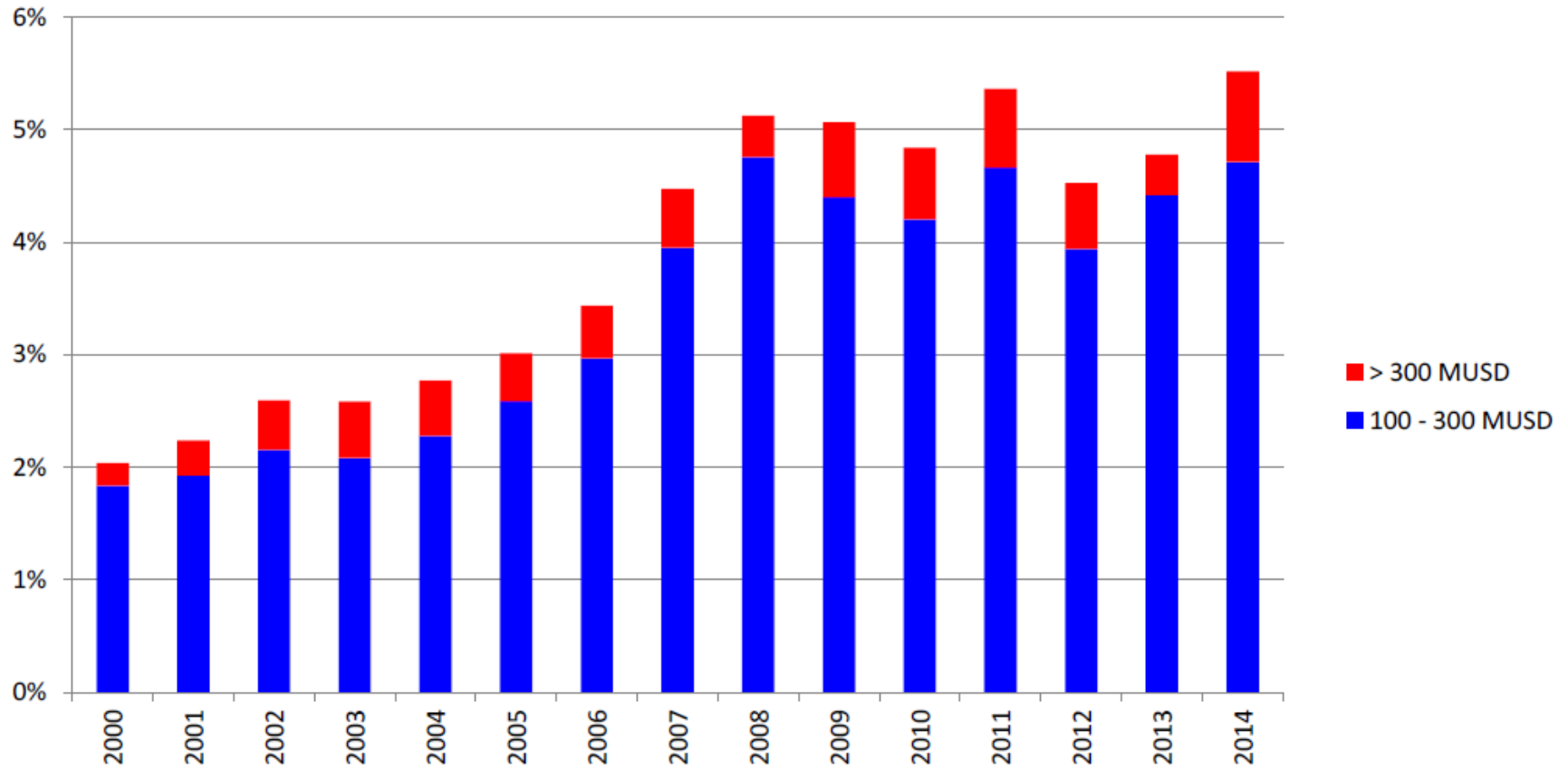
Sources: Cefor Statistics Forum, IUMI Facts and Figures Committee, Lloyds List Intelligence, Clarkson Research, August 2014  
 Note: Total Losses as Percentage of World Fleet, Vessels > 500 GT



# We Know It's Only A Matter of Time



## Vessels with Values xs 100 USD Million as % of Total Insured Portfolio:



Sources: Cefor Statistics Forum, IUMI Facts and Figures Committee

# How Marine Stacks Up in this Environment



## Today's Reinsurance Market – Impact on Marine Specifically

### Parallels with rest of P&C

- Relative absence of large losses in 2013
- Rising non-CAT loss ratios
- Abundant capacity from new underwriting markets
- Decent 2013 result fueling unhealthy sense of complacency

### Differences

- Historically superior profit margins
- Perception as a non-correlated line
- Lower default capital requirements under Solvency II
- Hard to model CAT exposures
- Smaller pool of qualified experts

# Is Marine Immune from the Influence of New Capital?



## Today's Reinsurance Market – Impact on Marine Specifically

### Yes

- Marine is different
  - Yes, a low correlation with some events
  - But, limited data for CAT modeling and relatively low demand
- *"Markets such as marine and aviation are tiny, and there isn't a crying need for capital."*

*Tony Tettino, CEO Elementum*

### No

- The Deepwater Horizon and Costa Concordia losses have highlighted the need for limits exceeding traditional (re)insurance appetite
- Marine is just one of many attractive Specialty lines likely to feel the spillover effects as reinsurers diversify
- Marine Industry Loss Warranties already in use with growing interest

# Reasons Why This Marine Market Will Be Ugly



## Today's Reinsurance Market – Impact on Marine Specifically

### Lack of industry loss statistics for most classes

- Marine is small line (relatively) and P&C senior management
  - Doesn't understand it and pays next to no attention
  - Is over reliant on benchmarking reports but ignorant of limitations of marine data
    - I.e. ERC available on renewals but not enough data for adequately assessing new business
  - Holds naïve assumptions regarding mobility and absence of static exposures and will be unpleasantly surprised

# Reasons Why This Marine Market Will Be Ugly



## Today's Reinsurance Market – Impact on Marine Specifically

**Experienced underwriters, brokers, claims adjusters spread thin across the growing multitude of shops**

- Limited depth, awareness of risks/discipline varies by company
- Two decades of under investment in talent leaves little depth

**Too many non-experts writing business they don't fully understand**

*For example:*

- “Winning” stock throughput accounts from property markets based on low price and loose T&Cs
- Outsourcing CAT modeling for static exposures = HUGE miscommunication risks in the hand-offs
- Leading to culture of model reliance, shared responsibility / no accountability and foreseeable results



# Emerging Underwriting Issues

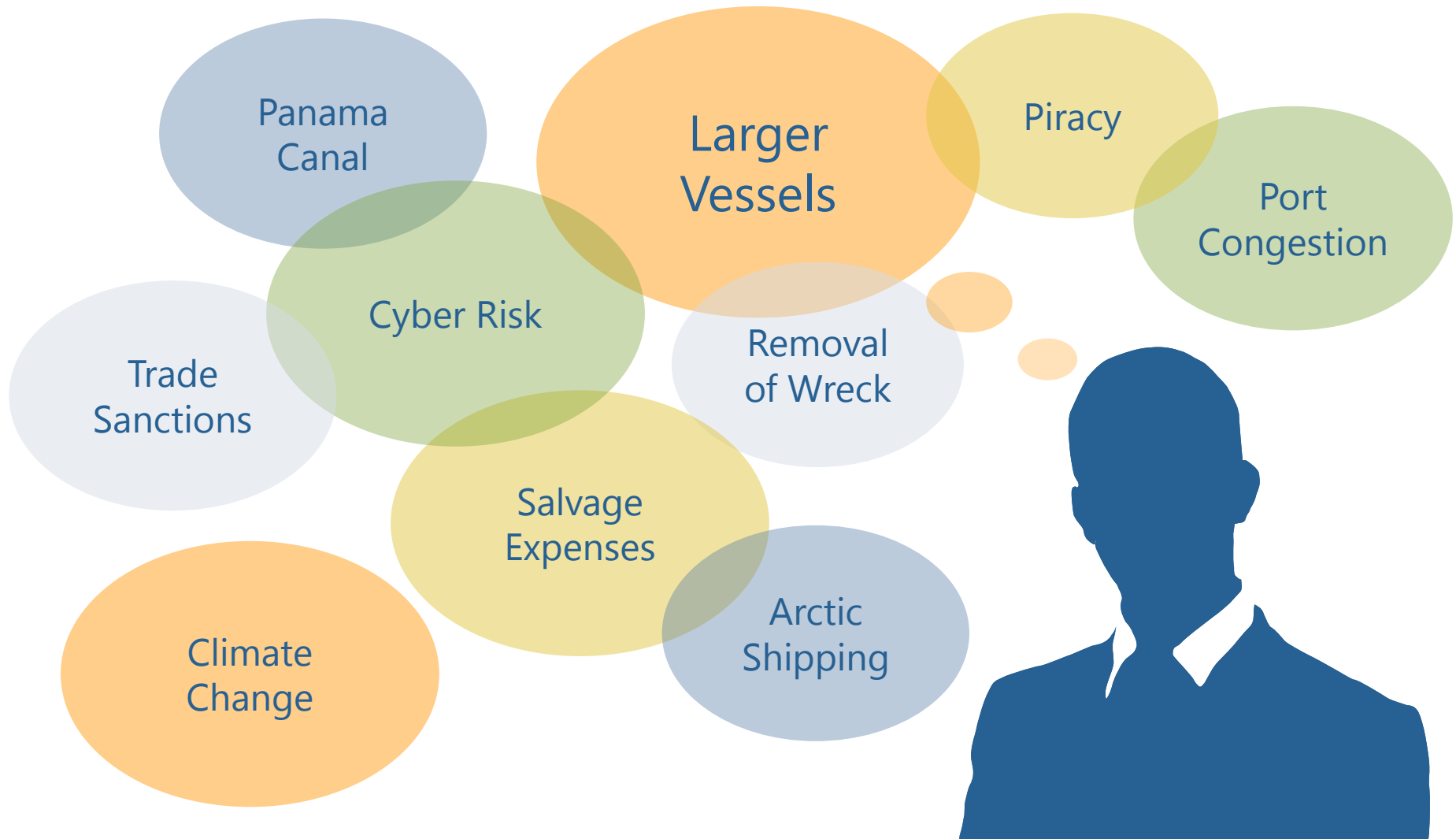
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Trends We Are Watching Closely

# Emerging Marine Underwriting Issues



## Emerging Underwriting Issues



# The Wide Wake of Larger Vessels



## Emerging Underwriting Issues

### Economies of Scale Risk:

#### Concentration of Risk

- Cargo + Hull quickly approaching \$1-2B at risk on larger vessels
- Many concerns about loss scenarios



#### Salvage and Wreck Removal

- Occurring more frequently, each with higher costs
- Size, Environmental Sensitivity, Politics, Limited Infrastructure contribute



#### Port Congestion

- Less predictable arrivals due to slow steaming
- Once in port, larger vessels tie up facilities for longer, with potential to overwhelm
- Resulting increase in average daily port values could be multiples of vessel size increase



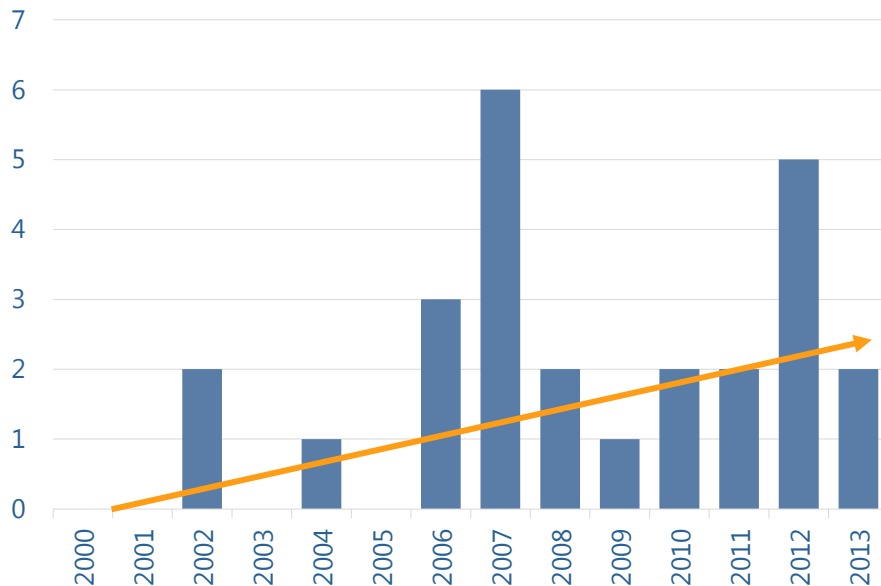


# Large Partial Losses Are Increasing in Frequency

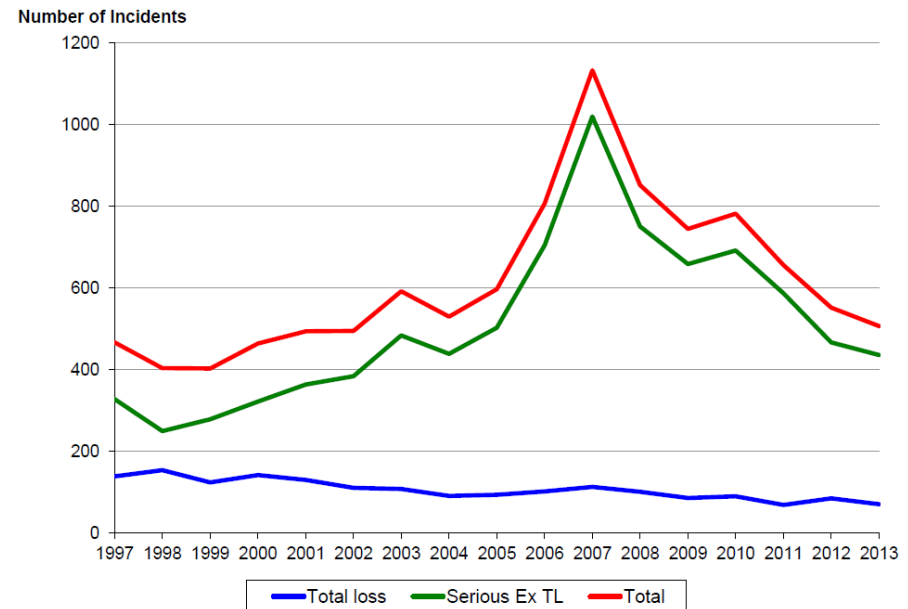


Blue Water Hull

## Claims in Excess of USD 30M



## Serious and Total Losses



Sources: Cefor Statistics Forum, IUMI Facts and Figures Committee, Lloyds List Intelligence, Clarkson Research,, August 2014  
Note: Total Losses as Percentage of World Fleet, Vessels > 500 GT

# Larger Hulls and Total Losses



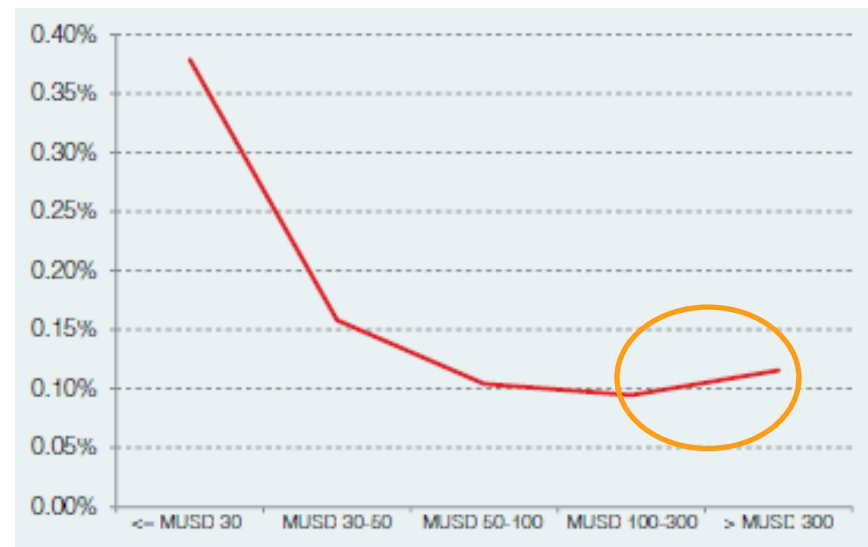
## Emerging Underwriting Issues

### Partial claim per sum insured, by sum insured layer, 2008-2013, by date of loss

#### Underwriting Challenges and Dilemma

- Greater complexity and exposure
- Significant claims handling uncertainty

Cefor analysis shows a flattening of partial claims by Sum Insured, and possible increase for the largest vessels



Will the Total Loss rate eventually exhibit a similar pattern?

Source: Cefor Annual Report 2013

# Extreme Weather



## Emerging Underwriting Issues

- Climate Change is a Reality
- Most static Marine exposures are located near the coast
- Marine insurers have to prepare for a higher frequency of larger storms and the implications for their portfolios
  - Wind
  - Flood
  - Storm Surge



2005

**US  
(Katrina) \$47B**



2012

**US  
(Sandy) \$29B**



2011

**Thailand  
Flooding \$15B**



2012

**Europe  
Flooding \$4B**

Source: Central Europe Flooding, "[Povodně v Praze, 30.jpg](#)" by Jargo/CC BY-SA 3.0.



## Emerging Underwriting Issues

### 85% of executives cited Cyber Risk as a top concern – AIG Study

- Downside to the digitizing of operations
- In addition to data breach potential, some operations exposed to:
  - Property Damage, Bodily Injury, Business Interruption, & Third Party Liability
- Both Financial & Reputational Costs

### Ports

- *Significant vulnerabilities in essential trade infrastructure* - Brookings Institute

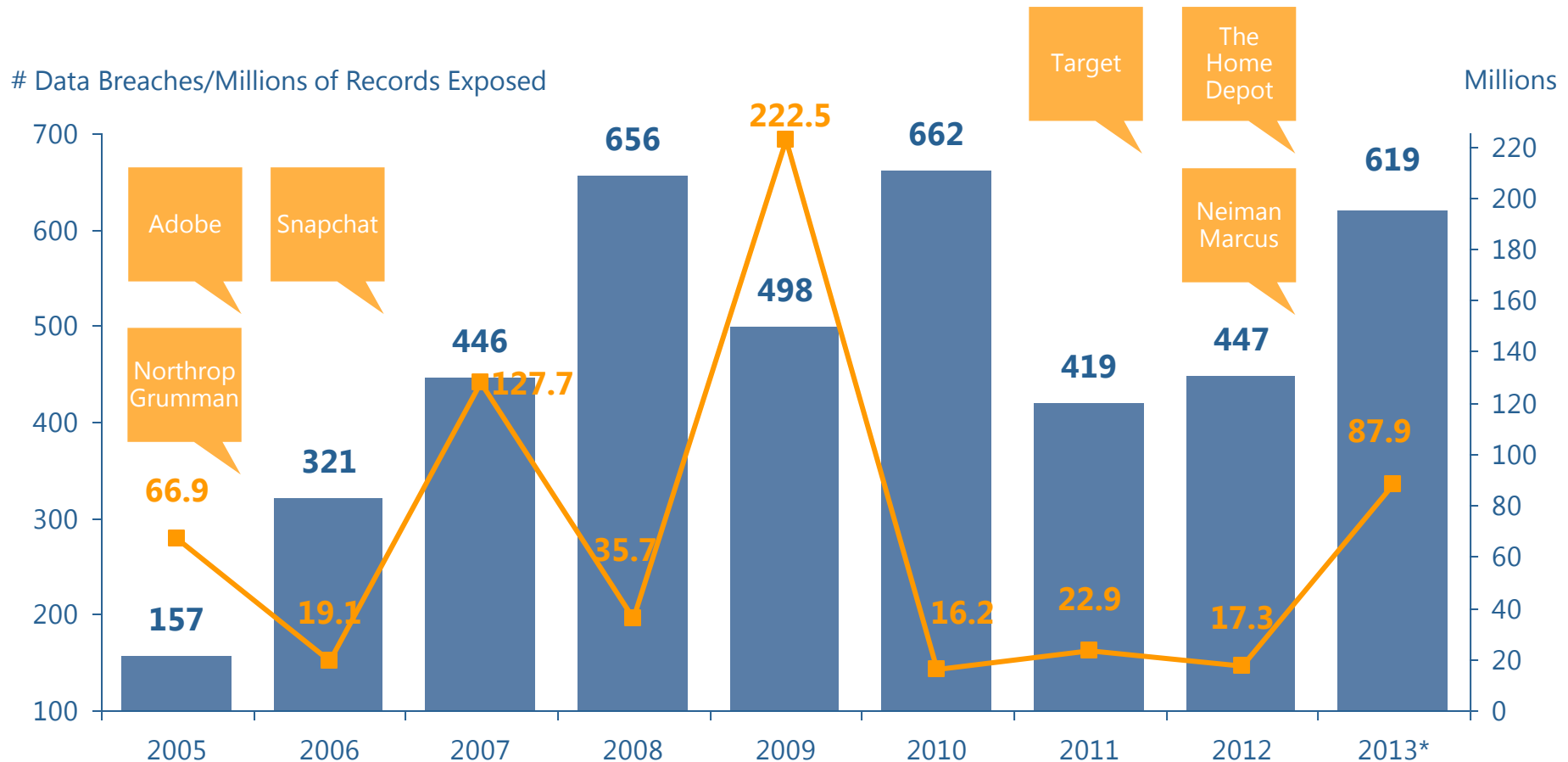
### Cargo

- *Shipping and supply chains are the next targets for hackers* - International Maritime Bureau

### Vessels

- Researchers have found significant holes in navigation systems (GPF, AIS, ECDIS) security
- *"Every ship has a back door – communication lines"* – Markus Wahler, marine cyber consultant

# Data Breaches 2005-2013, by Number of Breaches and Records Exposed



**The Total Number of Data Breaches (+38%)  
and Number of Records Exposed (+408%)  
in 2013 Soared**

■ # Data Breaches  
—■ # Records Exposed (Millions)

\*2013 figures as of Jan. 1, 2014 from the ITRC updated to an additional 30 million records breached (Target) as disclosed in Jan. 2014.  
Source: Identity Theft Resource Center.



Shipping identified as highly important to achieving objectives

Marine and Aviation pose the highest risk for insurers

"Underwriting"  
Risks

Criminal  
Charges

Fines

Reputation

Potential  
Breach of  
Contract



## Closing Points

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- Reinsurance results aren't as good as they've looked and are deteriorating rapidly.
- Risk is still out there – don't get lulled into a false sense of security!
- New capital will be disruptive in the short term; in the longer term some players will leave but others are here to stay.
- Marine reinsurance will feel these effects just like the rest of P&C, but indirectly rather than through major structural changes.
- For buyers this creates a near term opportunity for arbitrage, but don't bet on it as part of your long term business strategy.
- There will continue to be a role for the traditional reinsurance model, but individual companies' strategies will vary.



# Reinsurance Risk Transfer Cycle



## IDENTIFY



## TRANSFER



## RISK

## RETAIN



## UNDERSTAND





## Thank You

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