



INTRODUCTION TO P&I AND THE INTERNATIONAL GROUP

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Introduction to P&I and the International Group

Headline news



Introduction to P&I and the International Group

P&I coverages include.....



- Passenger liability
- Crew liability
- Cargo liability
- Pollution liability
- Collision liability
- Removal of wreck
- General third party liability
- Environmental liability

Governed by convention, statute and public opinion

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P&I – 13 Group Clubs plus other providers

IGP&I

International Group of P&I Clubs

Long history

Uniform limits

Consistent coverage

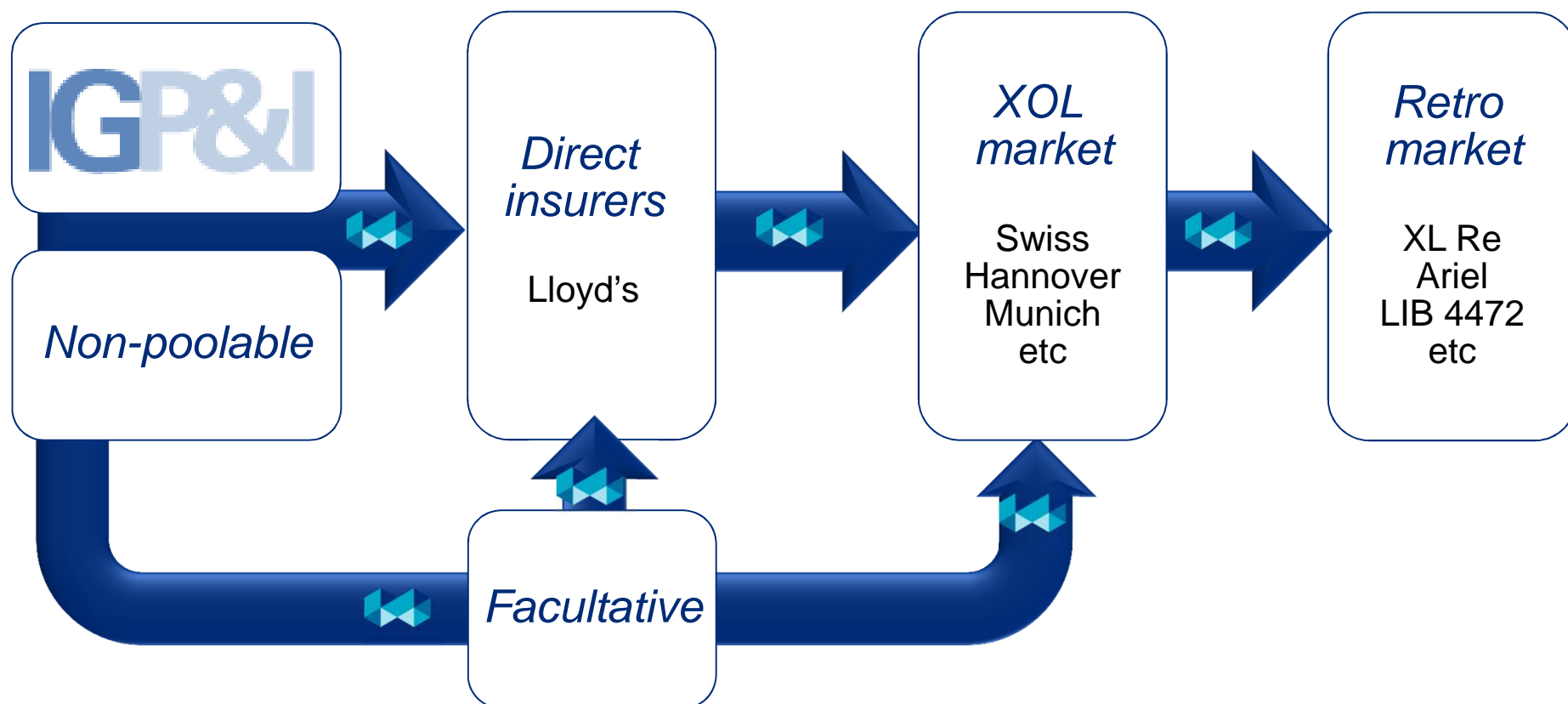
Comprehensive data set

Mutual, so Clubs focus on expected loss cost



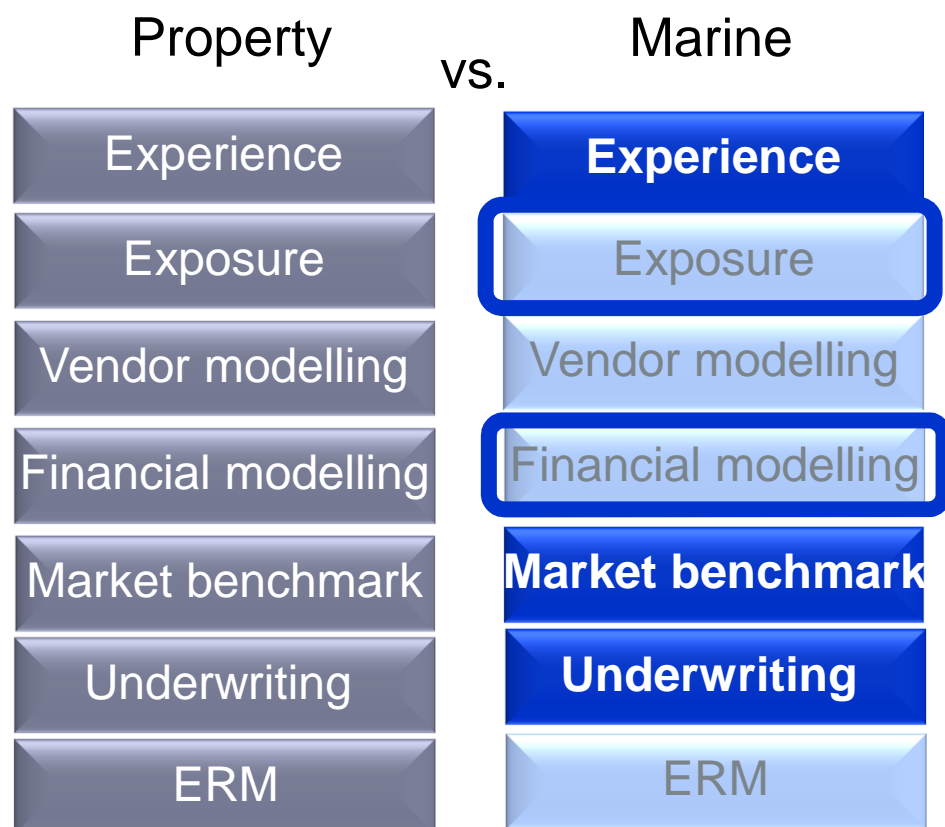
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Distribution of risk



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Bridging the analytics gap

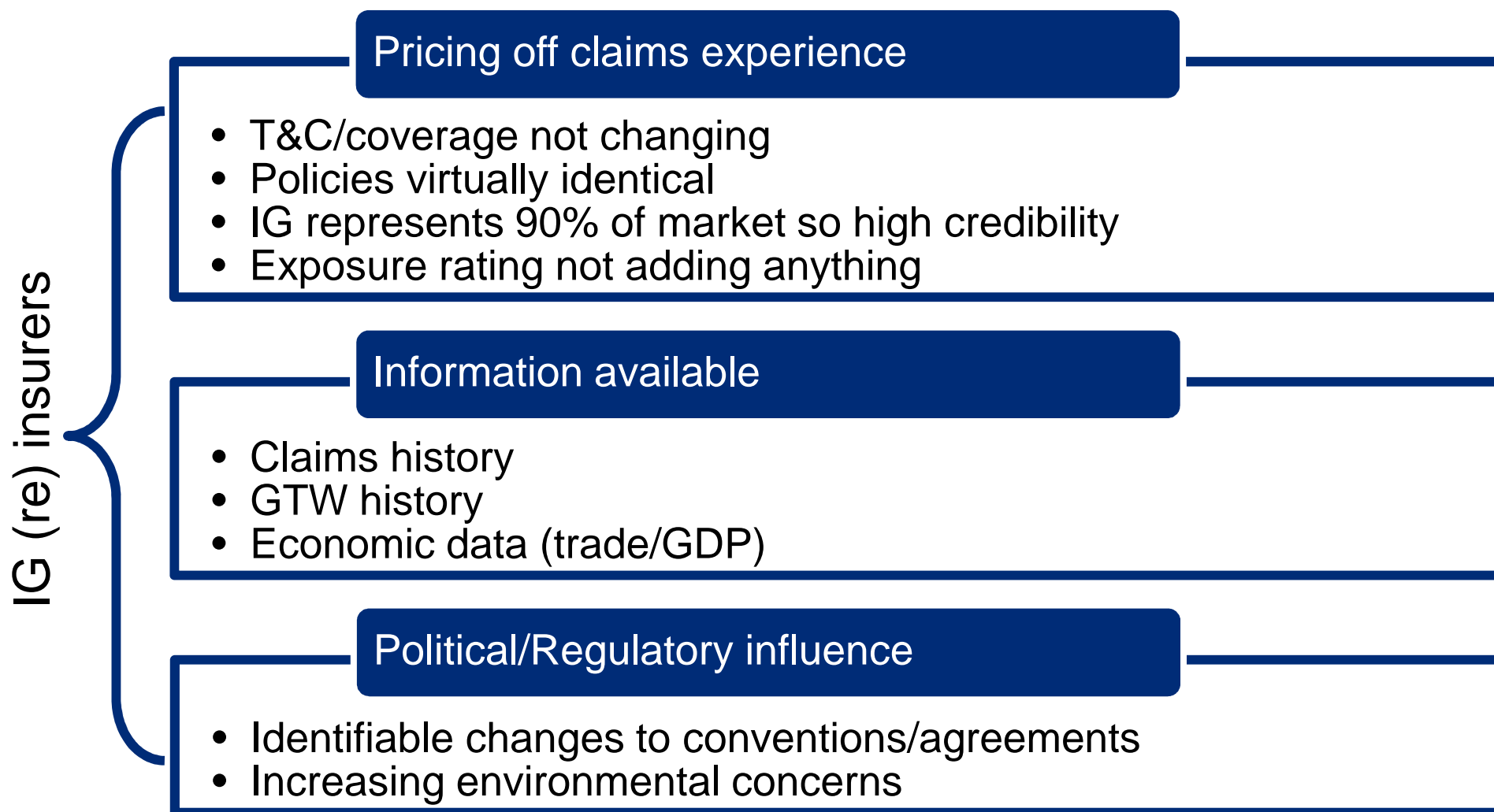


P&I should help fill the gaps but held back by issues of:

- Frequency
- Severity
- Pricing

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Influences on reinsurance pricing



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Claims history: background

All about paying the claims

- Clubs are Mutuals
- Historic strong reputation for conservative reserving

Problems now emerging

- Very material large loss developments (Cosco Busan, Rena)
- Increases to Rena materially changed pricing mid-negotiation of renewal

Why? – underestimation of....

- Political factors
- Complexity of claim circumstances

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Claims history: data

Individual large losses provided

- ✓ Available over a long historic period
- ✓ Current paid and incurred
- ✓ Development history
- ✗ Only available for losses that ever exceeded the then Pool retention
 - After inflation, data for some years is incomplete

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GT history

- Historic exposure information available is GT (Gross Tonnage)
- Combination of size and number of vessels insured
- Reasonable but not perfect measure
 - Frequency affected by
 - ✔ Number of vessels
 - ⚡ Trade activity (proxy for vessel usage/crew fatigue/maintenance time)
 - GT not a perfect proxy for trade
 - ✘ Vessel age
 - ✘ Vessel type
 - ✘ Freight rates

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GT history

Severity affected by

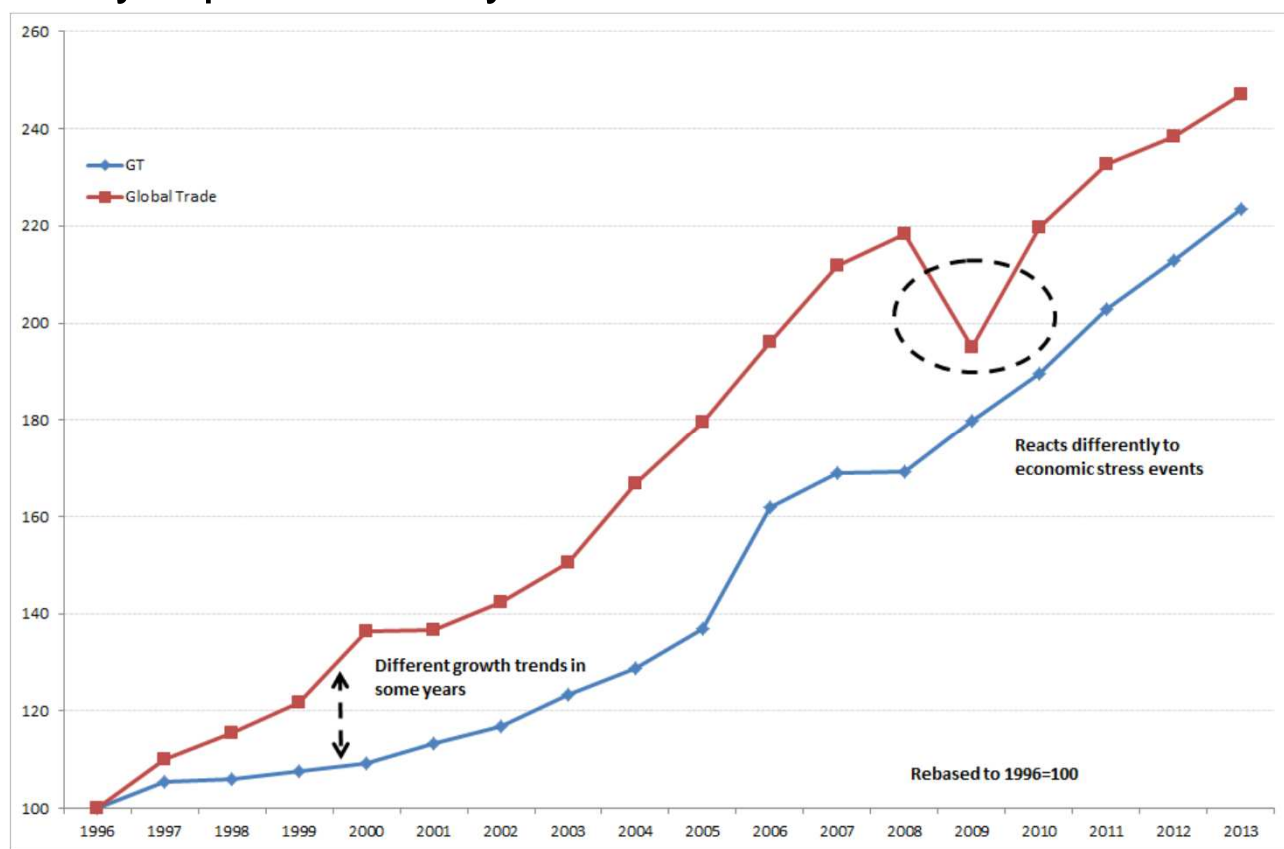
- ✓ Vessel size
- ✗ Vessel type
- ✗ Location of incident



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Economic data

- Trade/economic a major influence on potential claims activity
- Not perfectly represented by GT

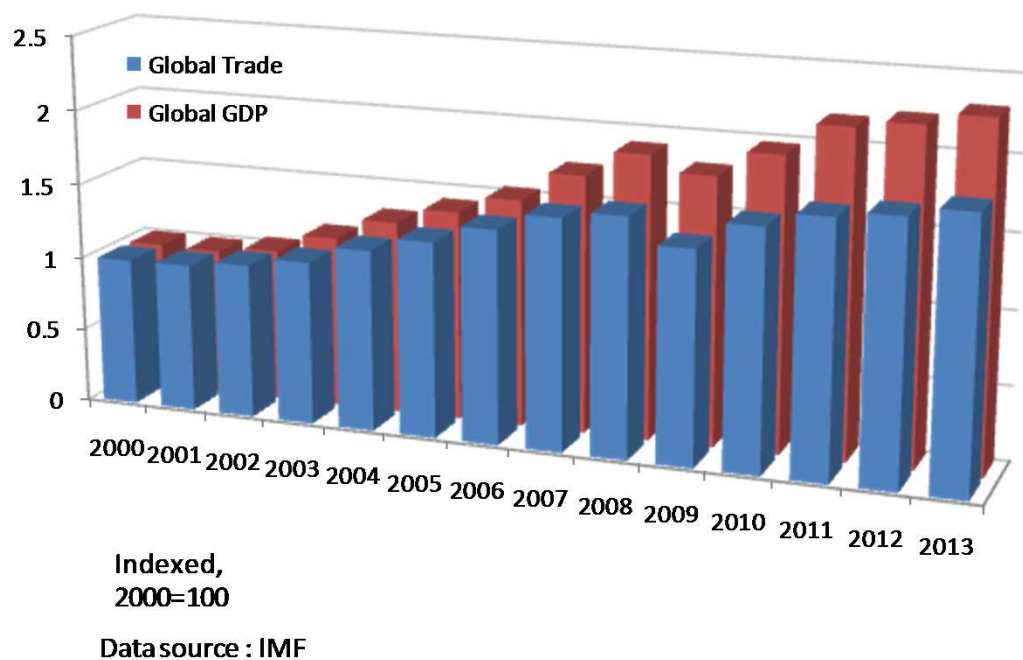


Sources : GT - GC estimates; Global Trade - IMF

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Economic data can supplement GT

e.g. Global GDP, Global trade, freight rates



ClarkSea Index, January 2000-January 2013

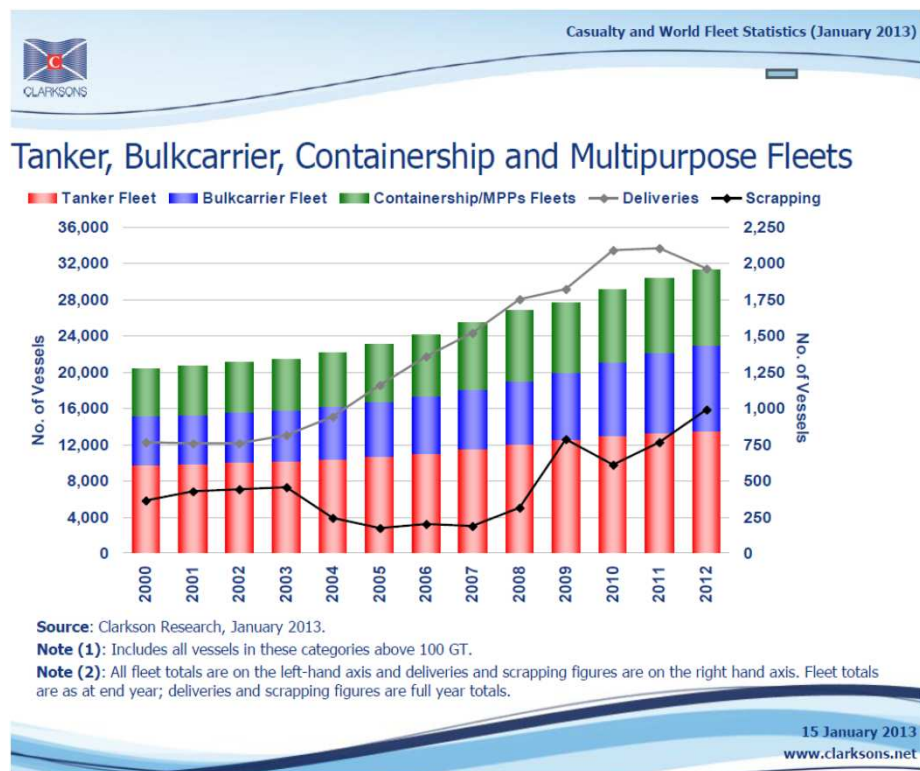


Source: Clarkson Research, January 2013.

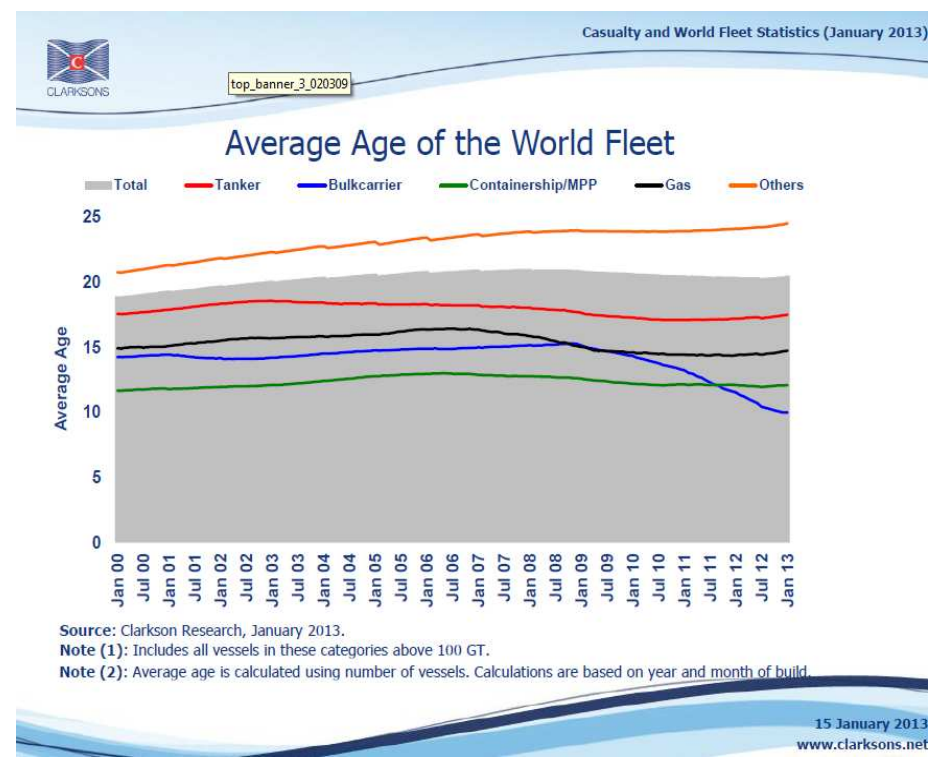
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Economic data – information also available on.....

Mix of vessel types



Average vessel ages



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Political influence: identifiable

Limits of liability determined by Marine Conventions and Protocols

These change but.....

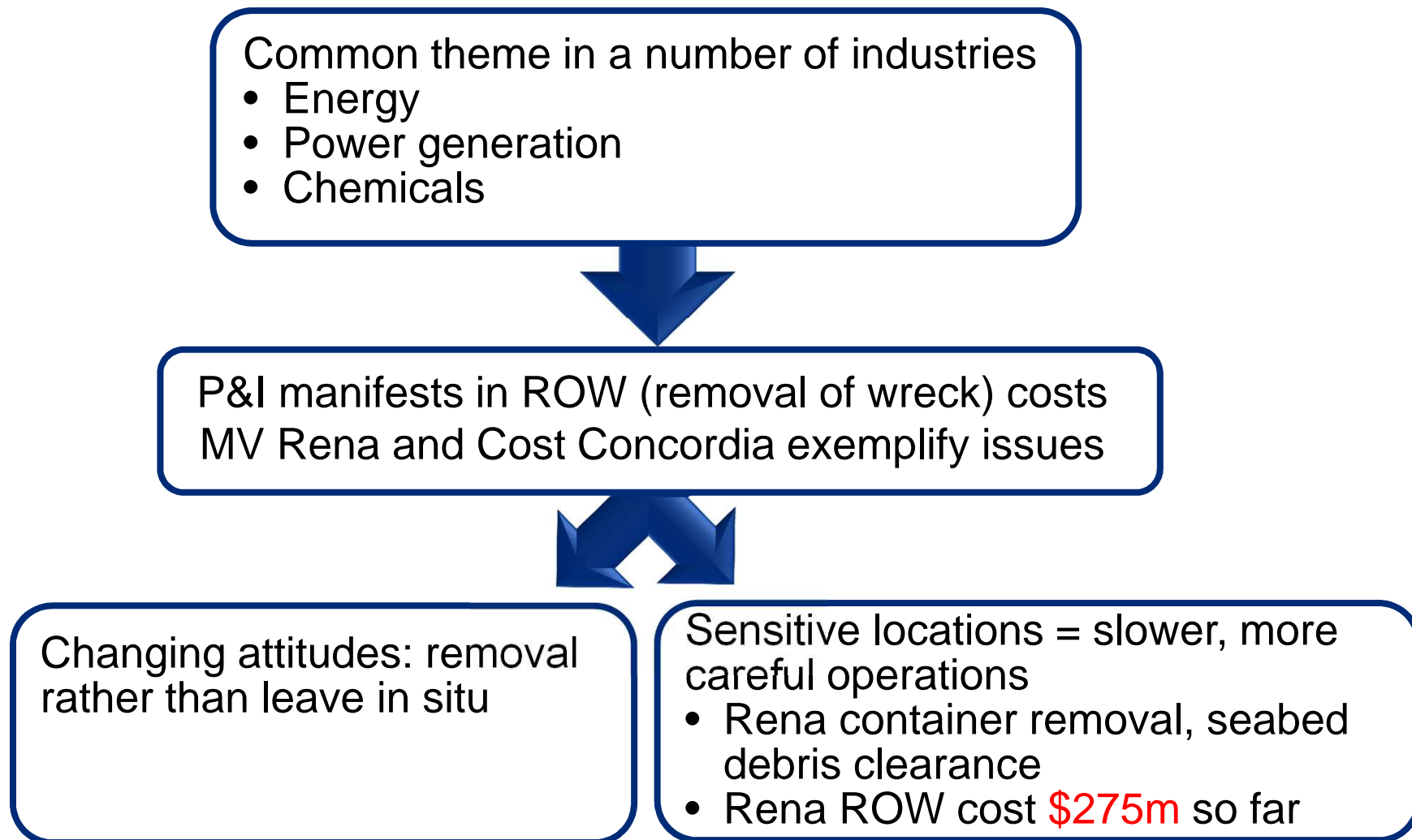
- Often only come into force once a pre-specified number of countries formally adopt them
- Timing of change not very predictable
 - E.g. Athens 2002 Protocol updates Athens 1974 Protocol
 - Comes into force April 2014

Dollar changes identifiable

- Athens 2002 Protocol increases passenger liability limits over 5 fold (approx \$70k per carriage to \$375k per passenger plus extra for luggage)
- Amendment to LLMC Protocol 1996 : increases aggregate liability claim limits by factor of 1.51

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Political influence: environmental

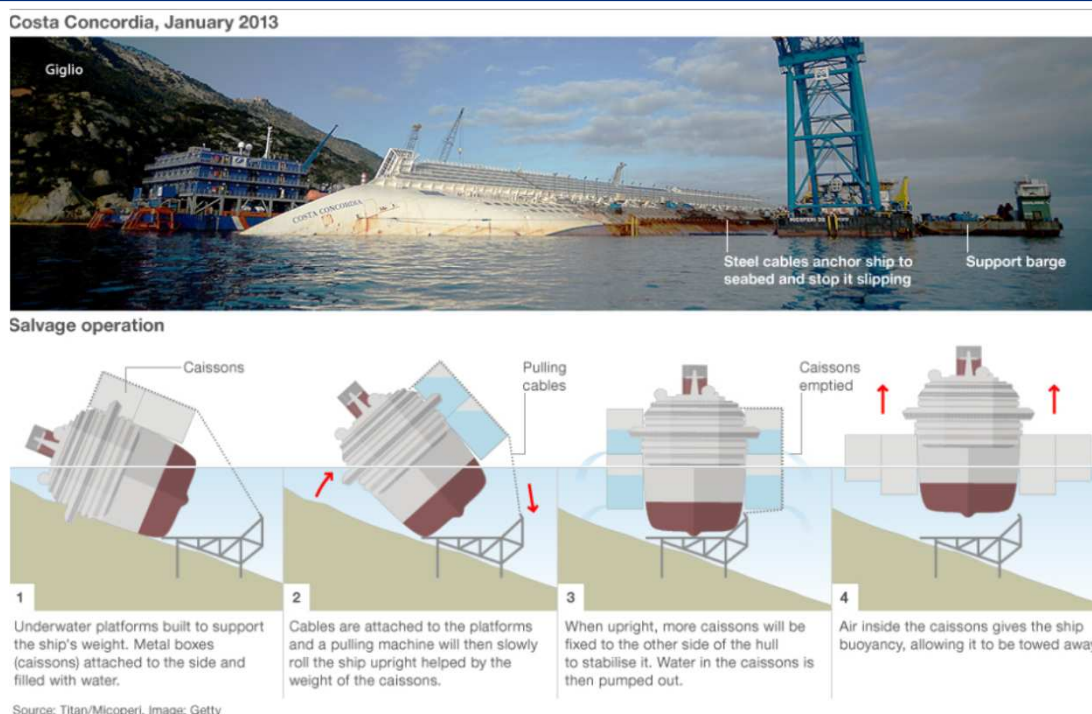


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Political influence: environmental

Size matters!

- Increasing size of vessels
 - Larger equipment needed, not readily available or close
 - More containers to remove
 - Rena only 3,351 TEU capacity; Triple E's will be 18,000 TEU
 - More fuel to remove (and higher standards for removal)



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Political influence: environmental

Location location location

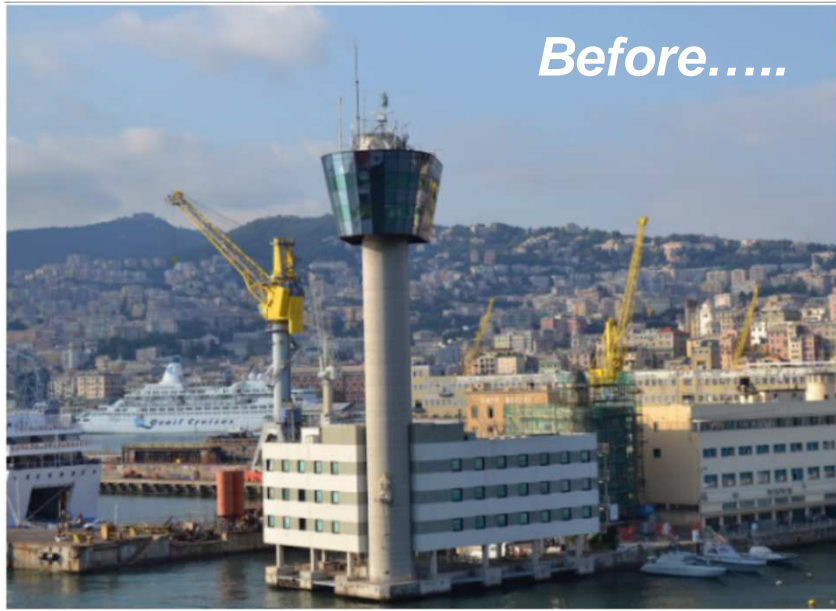
- Approach of Government with control over incident site
- Speed of decision making (UK an exception: single person authorised)
- Pressure to use local contractors

Impact on historic losses?

- Difficulty in reliable “trending” of historic losses
- What was a \$5m claim could now be \$300m

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Quantifying known unknowns





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