

GIRO Conference and Exhibition 2012
Juggling uncertainty the actuary's part to play

Wednesday 19th September 2012

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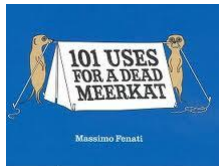
GIRO Conference and Exhibition 2012

**Global Statistics from the International
Union of Marine Insurance Facts and
Figures Committee**

Darren Farr, R&Q / Skuld 1897

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This is about Marine Insurance, so there will be none of this



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... those these gals are okay!



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AGENDA

- **IUMI and the Facts and Figures Committee**
- **Report on World Merchant Fleet and World Trade**
- **Global Marine Insurance Report**

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International Union of Marine Insurance (IUMI)

- **Founded in 1874.**
- **A professional NGO run by and for its members.**
- **Members are:**
 - **national insurance associations;**
 - **marine insurance associations; and**
 - **marine professionals.**
- **Provides an important forum to discuss and exchange ideas of common interest to marine (re)insurers.**
- **Enables views and ideas on matters of marine (re)insurance to be disseminated to all interested parties – including NGOs, IGOs, and the shipping industry.**
- **Dedicated to maintain and expand international trade.**

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IUMI Facts & Figures Committee

- Created in 2002.
- Provides IUMI with
 - updated shipping and marine insurance key data and statistics;
 - and an overview of trends in these industries.
- Provide marine insurers with risk data to improve the decision making processes in risk pricing and risk transfer.
- Industry reports are presented twice a year:
 - In September (at the annual IUMI Conference) and in March.
- As well as Casualty and Exposure statistics produce:
 - Global Marine Insurance Report
 - Global Shipping Market Trends
 - Ship Repair Cost Index

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The following presentations are abridged versions presented yesterday at the IUMI Conference in San Diego....

...where it's 30°C and



... but they don't have



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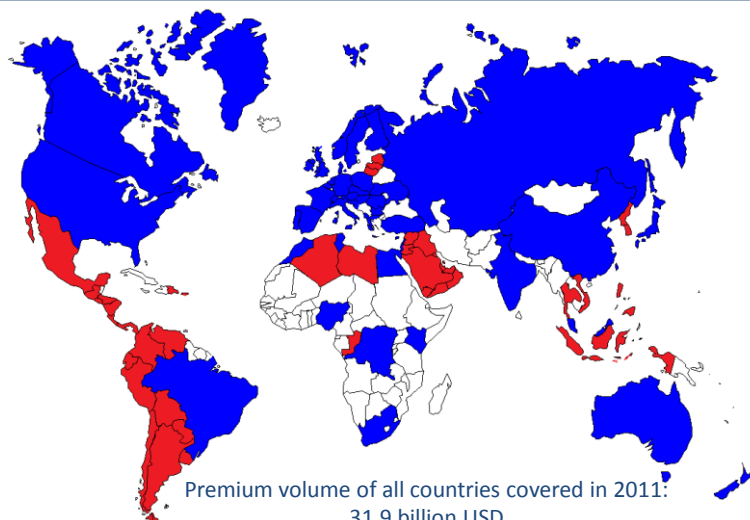


Report on World Merchant Fleet and World Trade

(abridged)

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Facts & Figures
Country data collection 2012 – 2011 Premium



 **IUMI** **SAN DIEGO 2012**

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Macroeconomic environment

Recessionary forces in Europe have intensified

Emerging economies generally faring better than developed

Economic recovery in US continues

Global economy has slowed; policy easing underway and more stimulus may be required to kick-start growth.

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Macroeconomic environment

Industrial Production Index

Year	Africa and Middle East	Central and Eastern Europe	Latin America	Asia	Euro area	United States
2007	95	95	95	90	95	95
2008	95	95	95	100	95	95
2009	90	90	90	110	85	85
2010	95	95	95	120	90	90
2011	95	95	95	130	90	90
2012	95	95	95	145	90	90

Weakness in Europe impacting on economic activity in emerging economies.

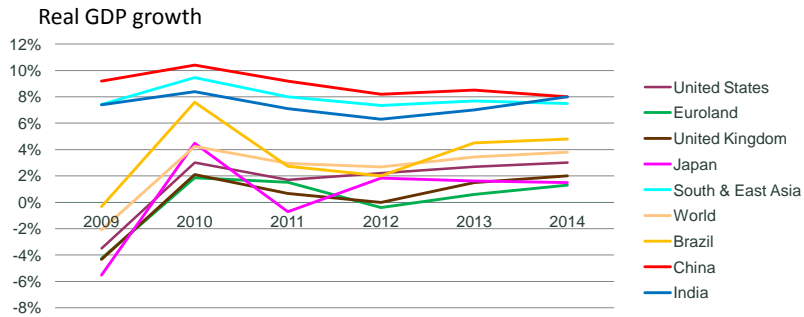
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Real GDP growth rates by region (forecasts)

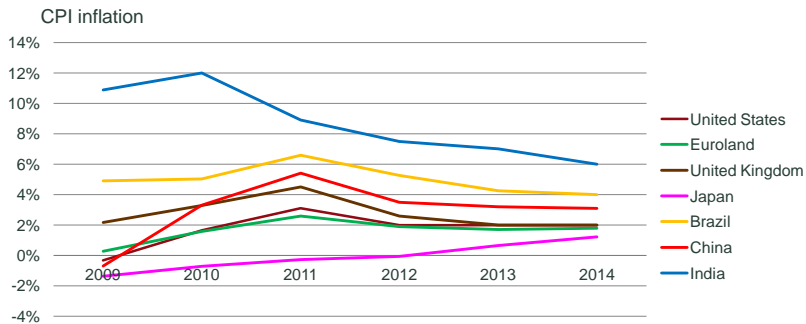


➡ Pace of recovery likely to remain modest and significant near-term downside risks.

Source: Swiss Re Economic Research & Consulting

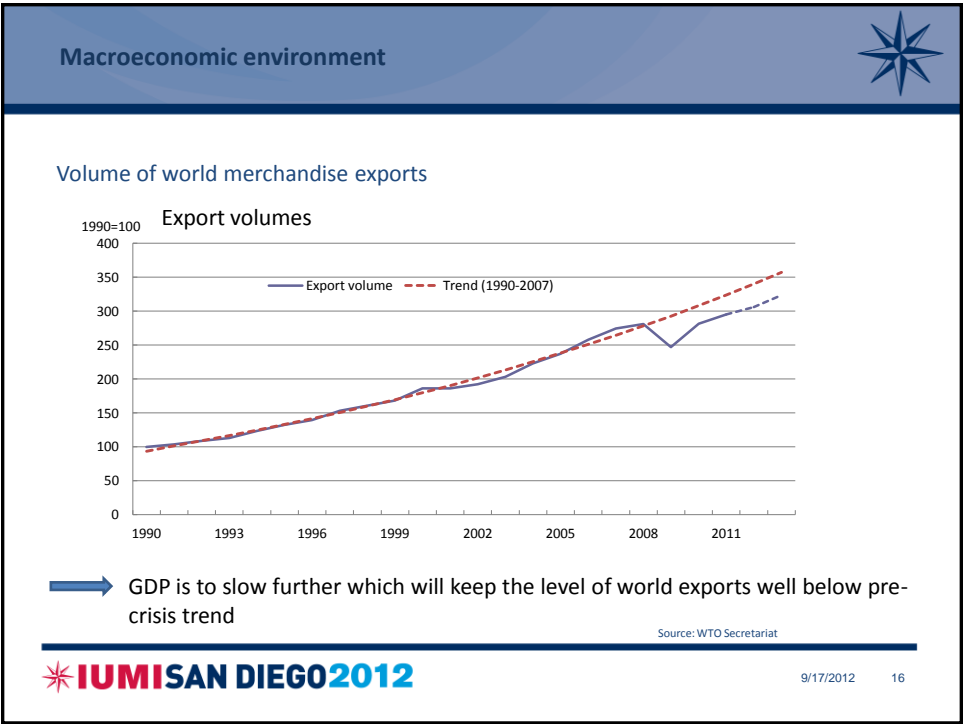
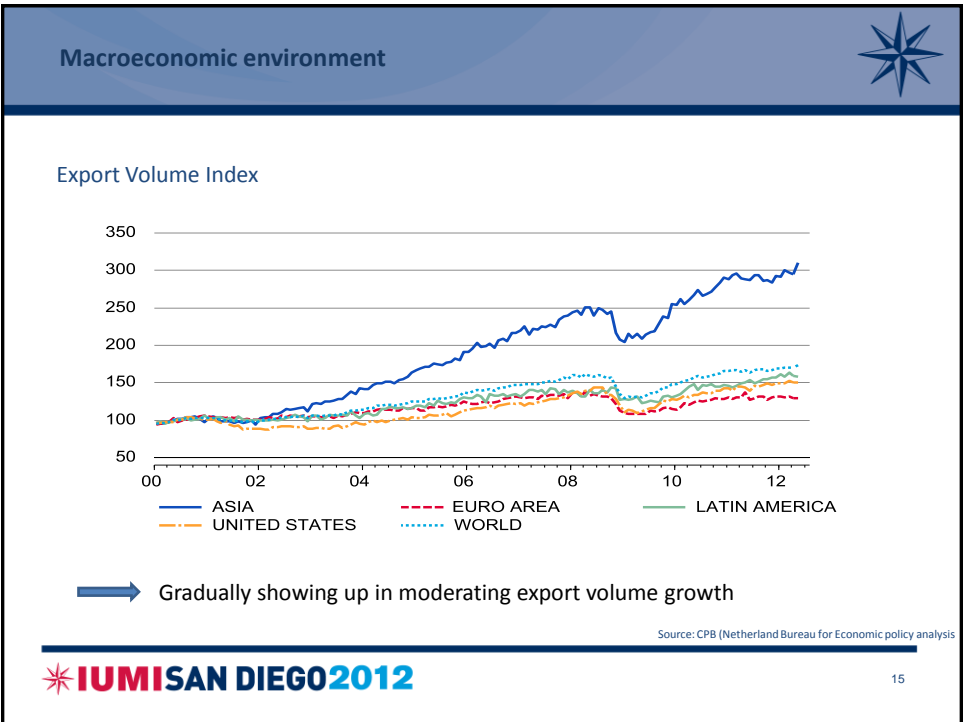


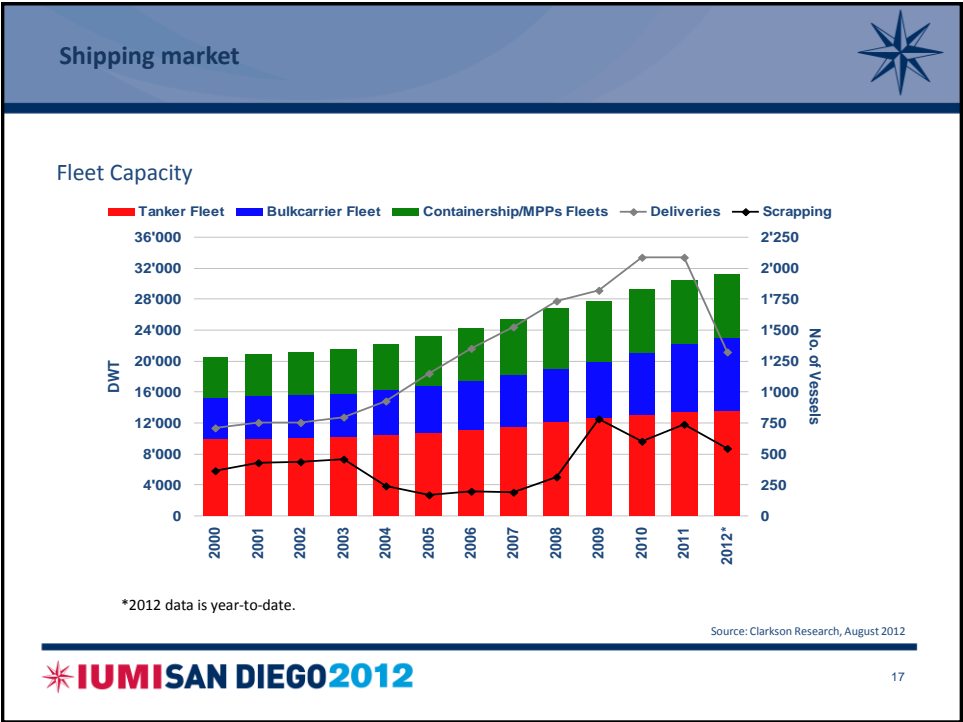
Inflation (CPI) forecasts



➡ Inflation likely to remain well contained (despite recent food price rises).

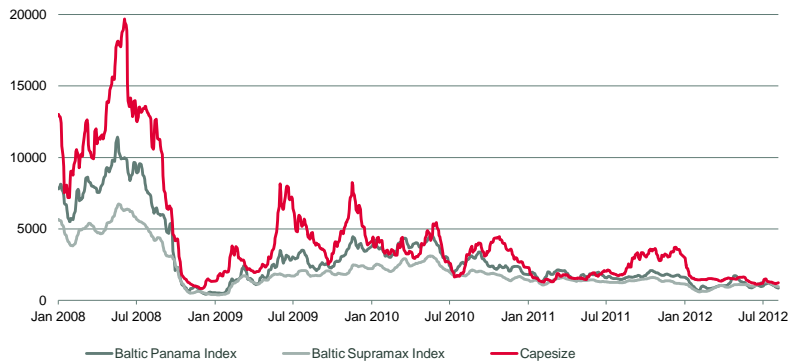
Source: Swiss Re Economic Research & Consulting







Freight Rates



... and freight rates remain low.

Source: Bloomberg



- **Freight rates** are still suffering and are slightly below historical average rate due to the higher cost basis for shipowners
- **Current newbuildings orderbook** still suggests significant capacity to come on stream in the future even if there's a considerable uncertainty (possible cancellations and delays)
- **Bulkcarriers average age** dropped from approximately 14 years on January 2010 to 10.5 years on July 2012
- **Vessels' demolition rate** is still high compared to 2011 for both tankers and bulk carriers
- Shipping market uncertainty remains
 - ➔ linked to macro-economic scenario



- ➡ weak and often negative growth
- ➡ risk of inflation
- ➡ low interest rate environment
- ➡ further instability in the Euro zone





2012 Global Marine Insurance Report

(abridged)

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Global Marine Insurance Report 2012



- **Cargo** – market & results
- **Hull** – market & results
(with some words on major losses...)
- **Offshore Energy** – market & results
- **Underlying Data** – for download
(Premium by country, Loss ratio triangulations)

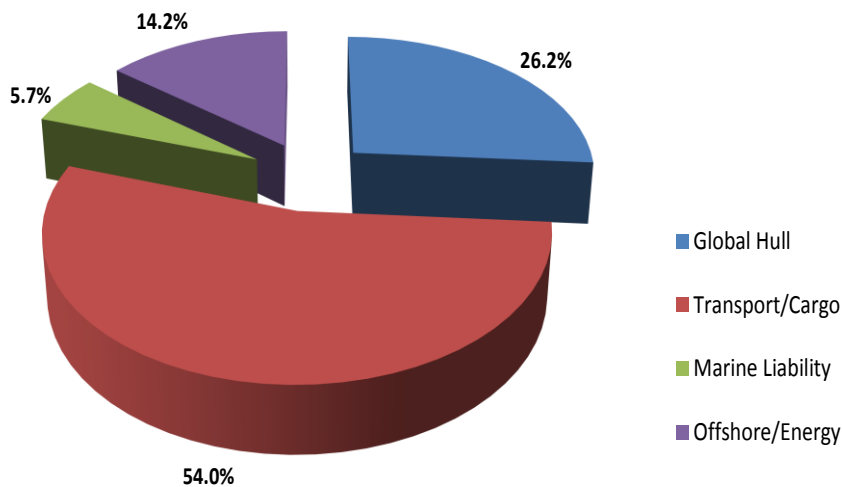


 **IUMI SAN DIEGO 2012**

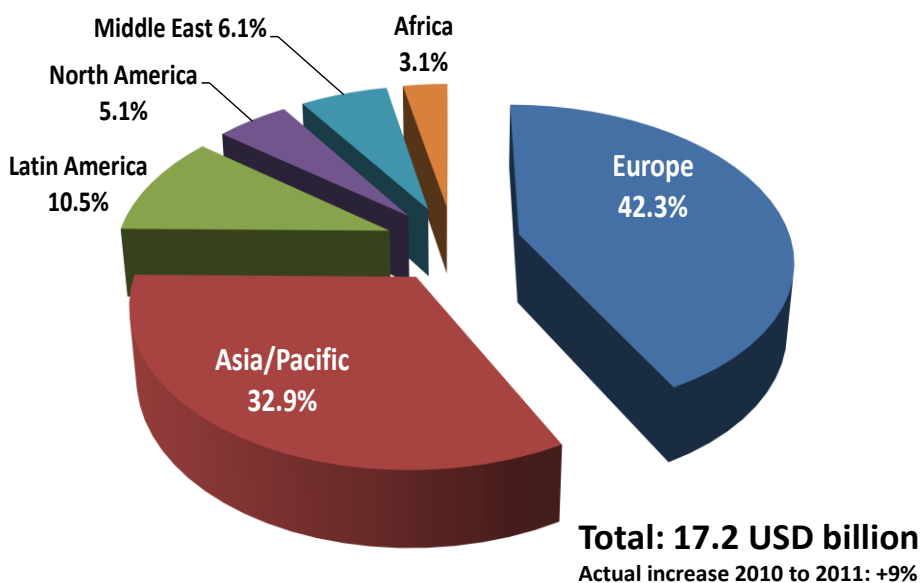
Marine Premium 2011 – by line of business



Total: 31.9 USD billion



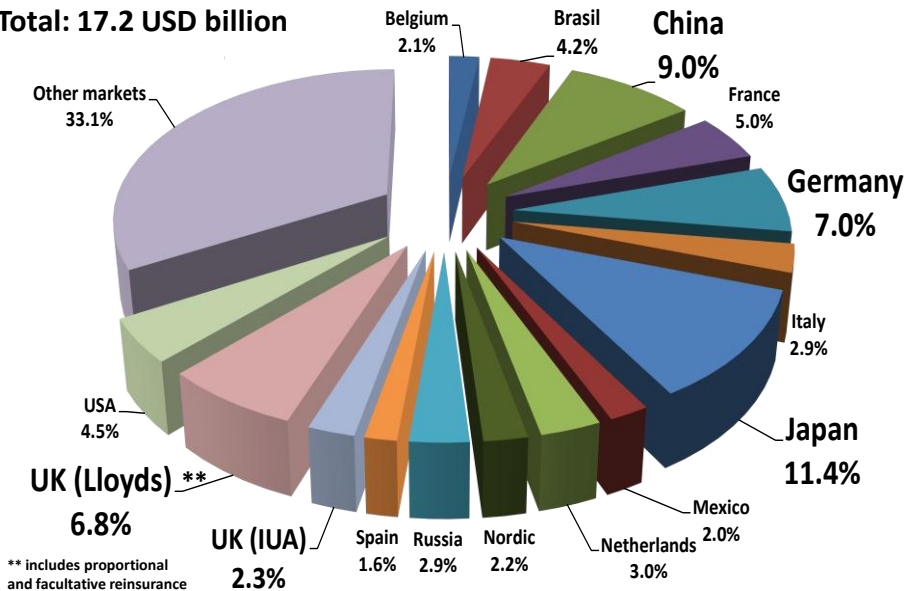
Cargo Premium 2011 – by region



Cargo Premium 2011 – by markets

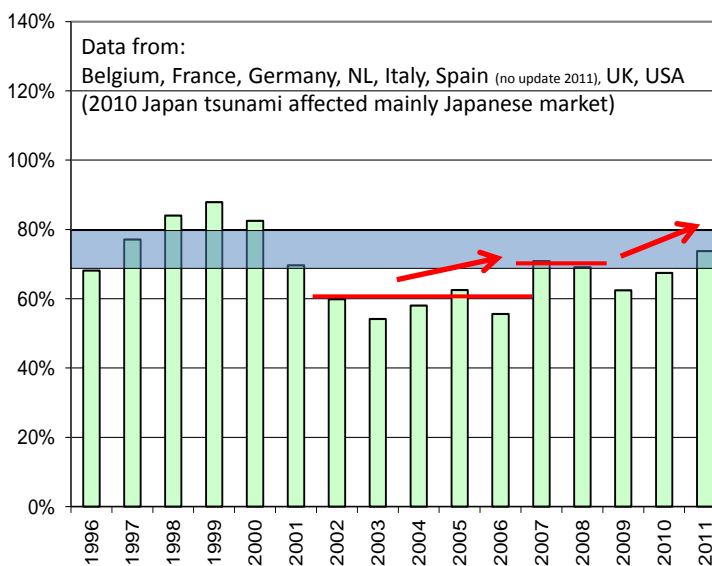


Total: 17.2 USD billion



Cargo – Gross* Ultimate Loss Ratio

Underwriting years 1996 to 2011



2011:

Starts high at 72%,
may end at 74%.
No technical profit.

..and 2012?

Since 2007:

Deterioration of
results .

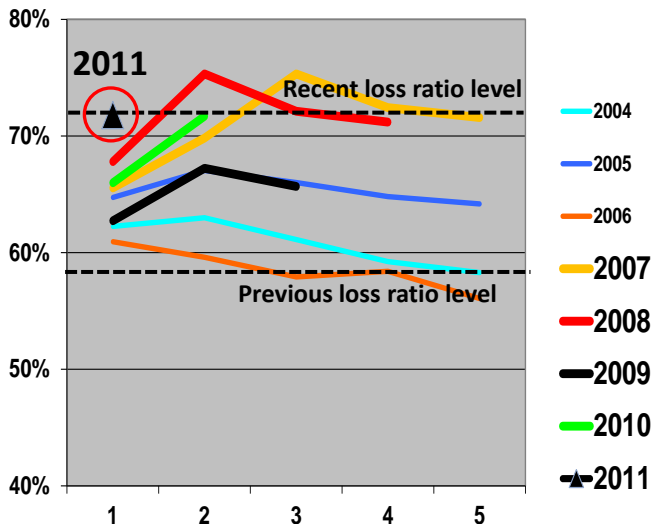
2002 to 2006:

Gross loss ratios
stayed below 60% -
technical profit.

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

Cargo – Gross reported Loss Ratios

Underwriting years 2004–11, as reported after 1, 2, 3, 4, 5 years



2011:

Starts high at new maximum of 72%.

2010:

follows 2007/2008 pattern; passed 70%

2007/2008:

improved, but still at high levels > 70%

Since 2007:

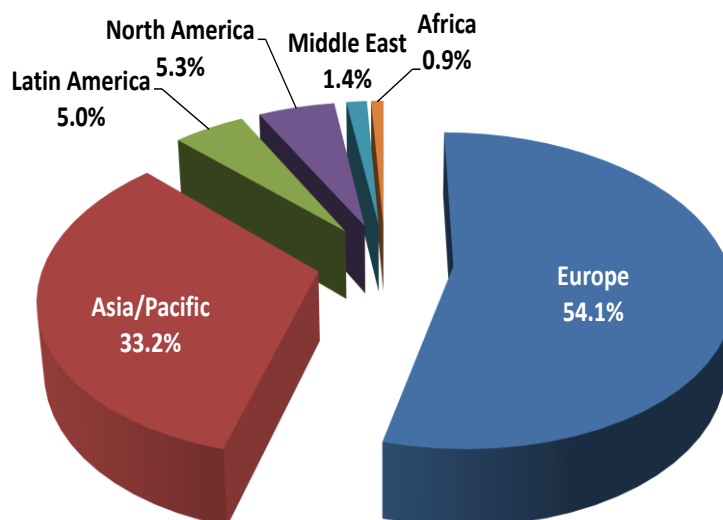
Market changes demand adjustment of claims reserves => Change in typical pattern

Summing up Cargo



- **2011 Premium growth reflects upswing in trade**
Commodity prices rising, stock throughput programs expanding (US), but economical environment remains unstable.
- **Increase in claims reserves – change in pattern**
2007/2008 improved later, but loss ratios stay high.
- **2011 Loss ratio starts at new maximum of 72%**
Impact of **Natural catastrophes** (Thailand floods), more general average claims, increasing acquisition costs.
- **Claim cost unlikely to decrease**
Increased accumulation risk, moral hazard, theft frequency, natural catastrophes. Sanctions and piracy still a concern.

Hull Premium 2011 – by region



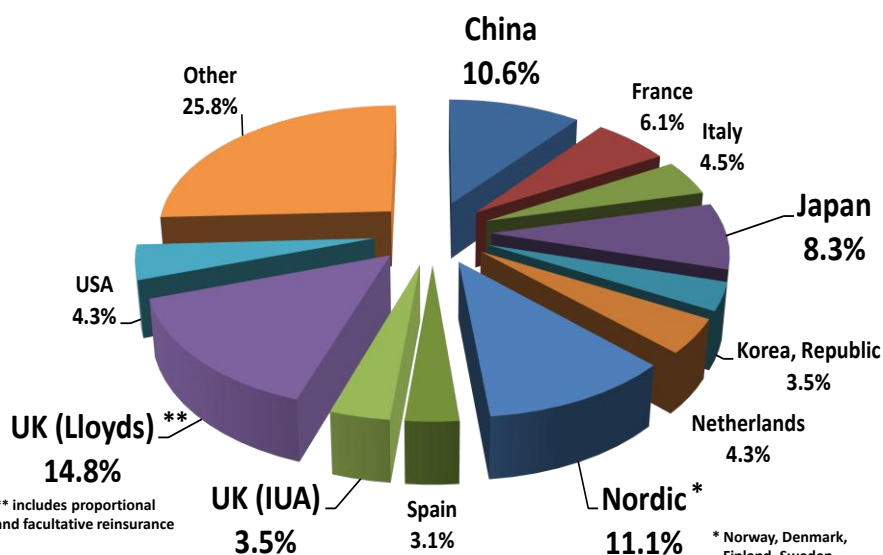
Total: 8.3 USD billion

Actual increase 2010 to 2011: +1%

Hull Premium 2011 – by markets



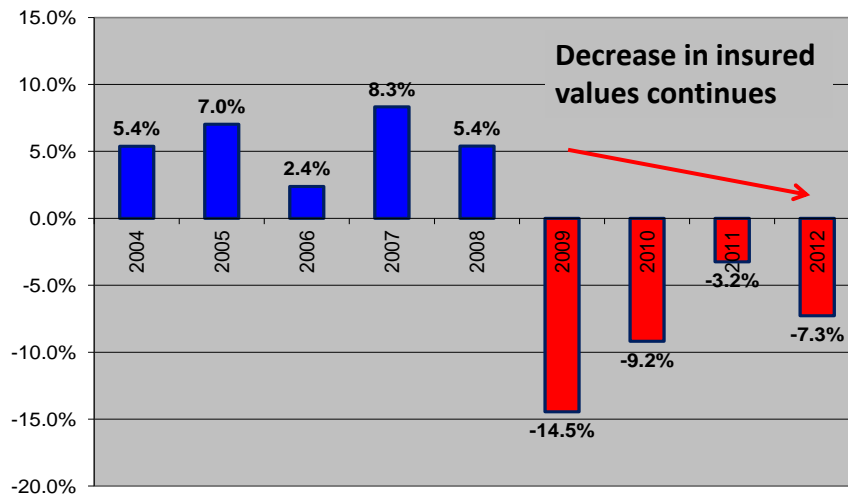
Total: 8.3 USD billion



Change in insured values on renewed vessels by year of renewal

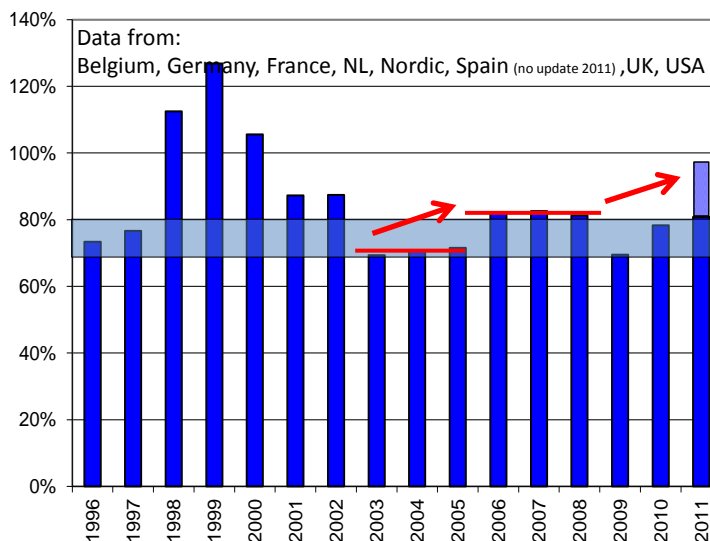


(= insured value on renewal / insured value previous year)



Source: Cefor - Nordic Marine Insurance Statistics as of 30 June 2012

Hull – Gross Ultimate Loss Ratio



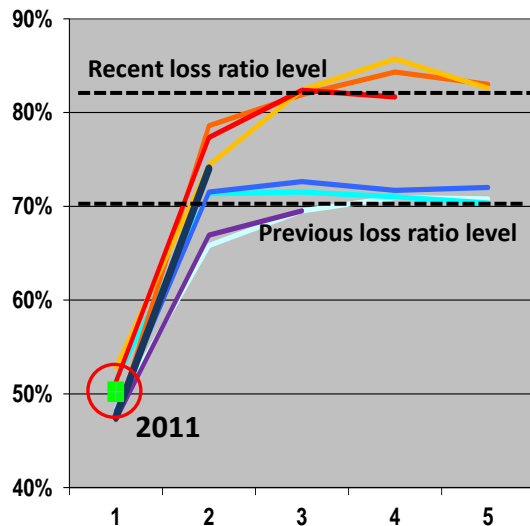
2012:
strong total loss impact (on uw years 2011 & 2012)

Costa Concordia:
Carnival Corporation & PLC website:
508+17 MUSD from H&M insurance.
(2Q financial report, issued 02.07.2012)

...and more total losses in excess of 30 MUSD did incur 1st half 2012 (partly attaching to uw year 2011).

Hull – Gross* Reported Loss Ratio

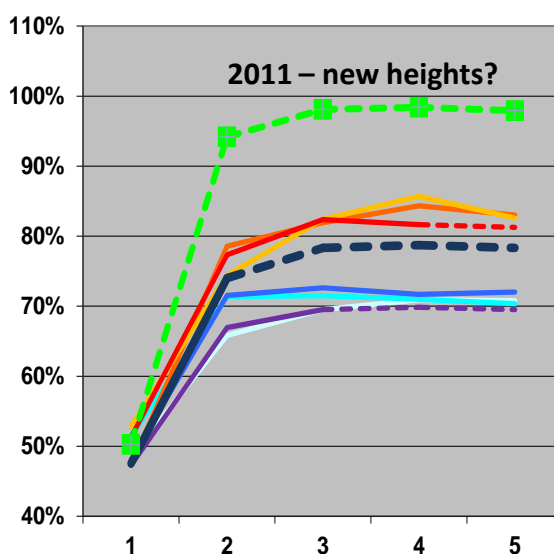
Underwriting years 2003-2011, as reported after 1, 2, 3, 4, 5 years



- 2011: starts at normal level.
- 2009-2010: Price-driving factors return to "normal" levels, but no stable environment. 2010 strong increase.
- 2006-2008: Repair cost driven up by changing frame conditions => Change in claims pattern

Hull – Gross* Ultimate Loss Ratios

Underwriting years 2003-2011 – estimated development towards ultimate



- 2011: Unprecedented total loss impact - loss ratio may reach new heights.
- 1st half 2012: Increase in no. of losses xs 30 MUSD. Impact on underwriting years 2011 and 1012.

Summing up Hull (1)



- **Frame conditions – still unstable**

Steel prices / repair yard capacity / exchange rates / commodity prices / vessel utilization / newbuildings / world trade / Euro crisis...

Influence

- **Income** (ship values)
- **Cost** (claim frequency/repair cost).

- **Repair cost / Claim frequency – Stabilize**

But: catching up of trade/higher utilization rates may cause **repair cost** to rise again

- **Major claims – strong impact 1st half 2012**

- Unprecedented costly event
- **Increase in total loss frequency 1st half 2012**
- Continuing downturn in insured values creates more constructive total losses

Summing up Hull (2)



- **Hull technically at loss for 16 consecutive years!**

- **Future Global Hull Market:**

- Understand **dependencies** between macroeconomic parameters and repair cost
- **Models** to estimate expected claim cost (=risk premium)
- Trade / Fleet development
- Market discipline / capacity
- The impact of **major claims**



Understand the actually covered **exposure**

Major losses 2012

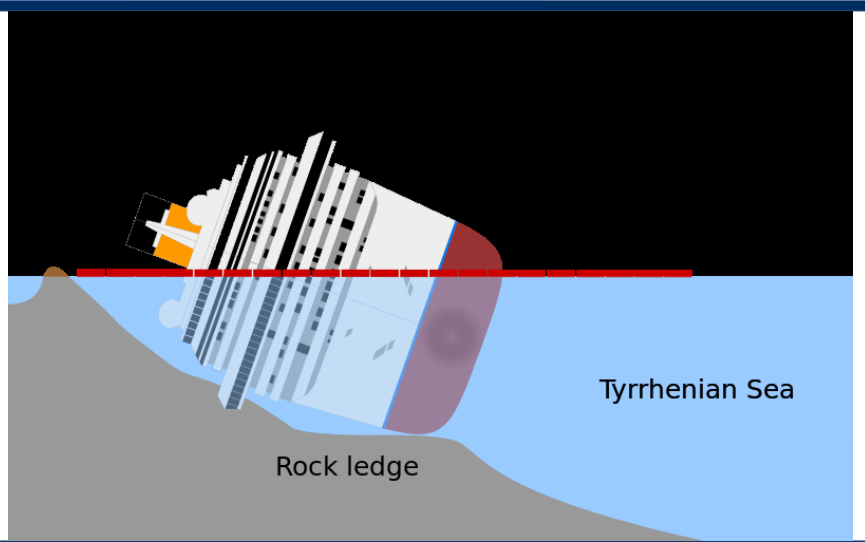


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« The Economist » June 9th-15th 2012

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Major Hull losses 2012



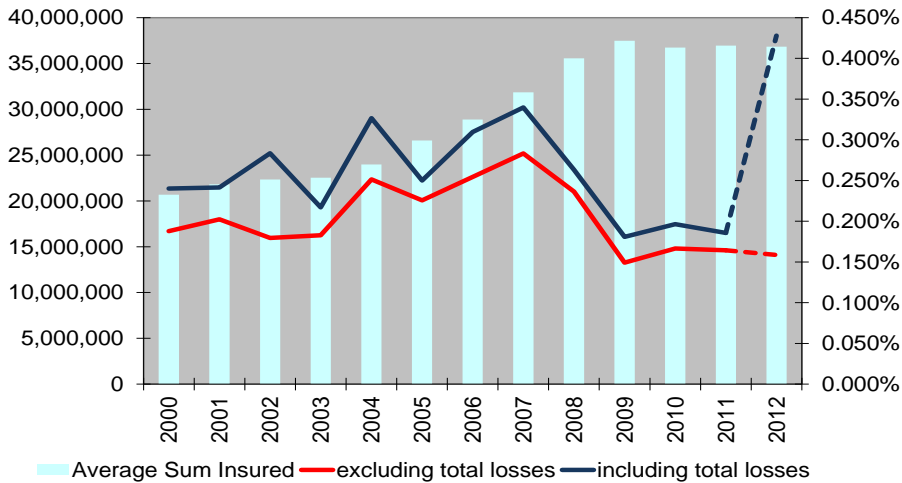
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Average insured value Claim cost in % of total total insured value



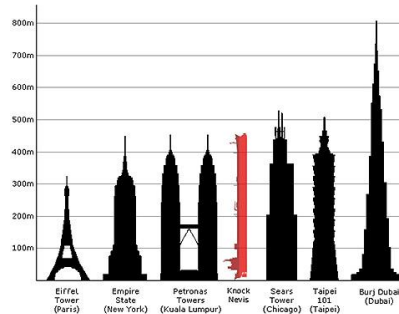
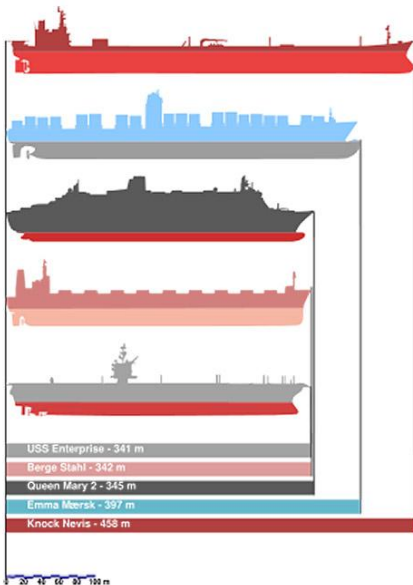
Watch your **Exposure** – one Costa Concordia can double the cost relative to the total insured value



Source: Cefor Nordic Marine Insurance Statistics as of 30 June 2012; Figures reflect 100% of all vessels, not the share written in a specific market

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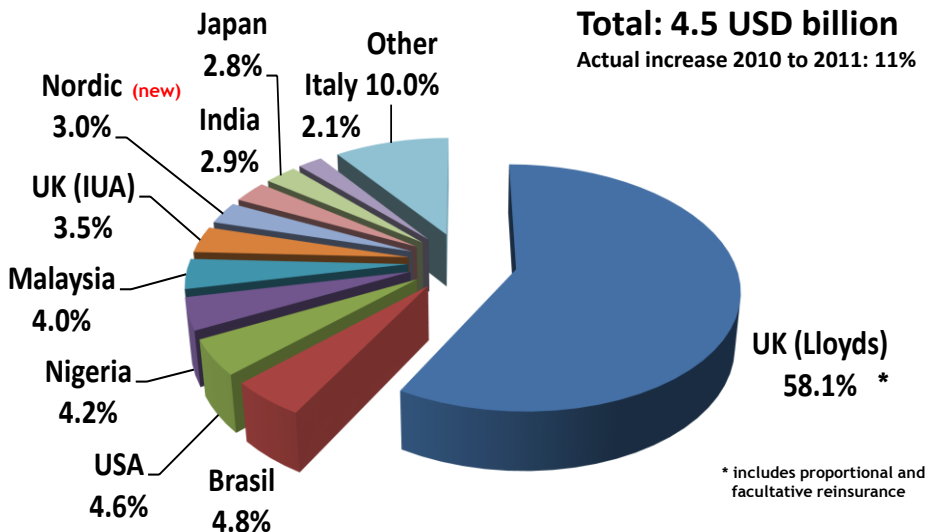
Can it get worse...?



Increasing vessel size

Increasing value
accumulation per vessel

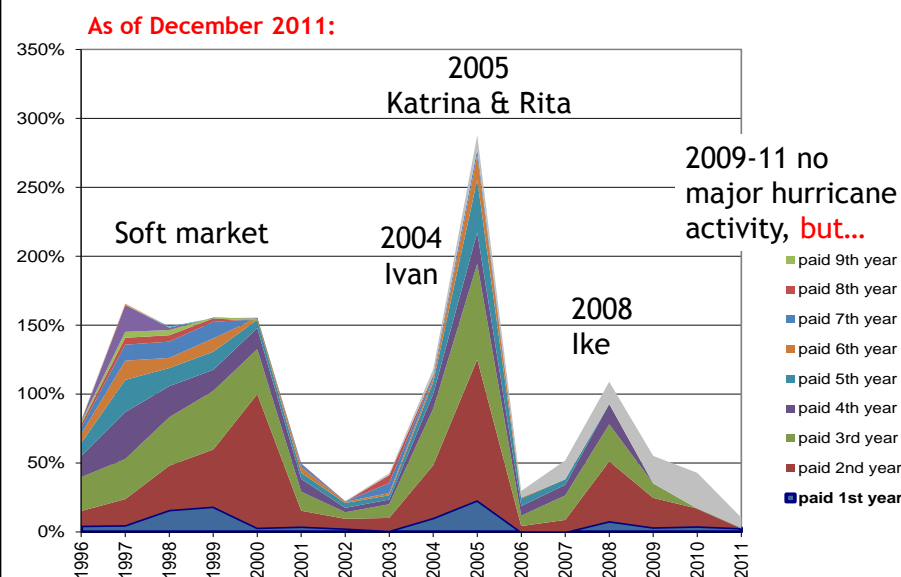
Offshore Energy Premium 2011 – by markets



No data: Kazakhstan.

Offshore Energy – Gross Reported Loss Ratios

including liability – Underwriting years 1996 to 2011



Summing up Offshore Energy



- **Volatile** business, strong hurricane impact – less in recent years.
- **Long time lag** between accident and claims payment
(due to technical complexity of the insured objects)
- **No regular claims patterns.**
(Claims reserves set according to knowledge about individual claims).
- **Recent development:**
 - **Reduced hurricane impact** (2012 Hurricane Isaac:
first Gulf of Mexico hurricane in four years, little impact on results)
 - **Increasing frequency of large single loss events**
(physical loss and liability)
 - **Events with high liability cost in 2009 and 2010**
 - 2011: two losses xs 300 MUSD (Gryphon Alpha, Banff)
 - 2012: one loss xs 300 MUSD (KS Endeavour)



Thank you

Further details at

www.iumi.com

and

<http://www.iumi.com/index.php/committees/facts-a-figures-committee/statistics>

Questions?

