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

Wednesday 19th September 2012

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

Darren Farr, R&Q / Skuld 1897
This is about Marine Insurance, so there will be none of this ....

... those these gals are okay!
AGENDA

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

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.
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

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
Report on World Merchant Fleet and World Trade

(abridged)

Facts & Figures
Country data collection 2012 – 2011 Premium

Premium volume of all countries covered in 2011: 
31.9 billion USD
Global economy has slowed; policy easing underway and more stimulus may be required to kick-start growth.

Weakness in Europe impacting on economic activity in emerging economies.

Source: Datastream
Macroeconomic environment

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
Gradually showing up in moderating export volume growth

GDP is to slow further which will keep the level of world exports well below pre-crisis trend

Source: CPB (Netherlands Bureau for Economic policy analysis)
Source: WTO Secretariat
... and freight rates remain low.

Source: Bloomberg

Shipping Market

- **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
Outlook for the marine insurance industry

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

Conclusion
2012 Global Marine Insurance Report
(abridged)

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)
Marine Premium 2011 – by line of business

Total: 31.9 USD billion

- Global Hull: 54.0%
- Transport/Cargo: 26.2%
- Marine Liability: 14.2%
- Offshore/Energy: 5.7%

Cargo Premium 2011 – by region

Total: 17.2 USD billion

- Europe: 42.3%
- Asia/Pacific: 32.9%
- Latin America: 10.5%
- North America: 5.1%
- Middle East: 6.1%
- Africa: 3.1%

Actual increase 2010 to 2011: +9%
### Cargo Premium 2011 – by markets

**Total: 17.2 USD billion**

- **Belgium**: 2.1%
- **Brasil**: 4.2%
- **China**: 9.0%
- **France**: 5.0%
- **Germany**: 7.0%
- **Italy**: 2.9%
- **Japan**: 11.4%
- **Mexico**: 2.0%
- **Netherlands**: 3.0%
- **Nordic**: 2.2%
- **Russia**: 2.9%
- **Spain**: 1.6%
- **UK (IUA)**: 2.3%
- **UK (Lloyds)**: 6.8%

**Other markets**: 33.1%

**USA**: 4.5%

**Data from:**
- Belgium, France, Germany, NL, Italy, Spain (no update 2011), UK, USA
- (2010 Japan tsunami affected mainly Japanese market)

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### 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

** includes proportional and facultative reinsurance

* Norway, Denmark, Finland, Sweden
Change in insured values on renewed vessels by year of renewal

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

Decrease in insured values continues

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

Hull – Gross Ultimate Loss Ratio

Data from: Belgium, Germany, France, NL, Nordic, Spain (no update 2011), UK, USA

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

**Hull – Gross**

**Reported Loss Ratio**

- **Recent loss ratio level**
- **Previous loss ratio level**

- **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

**Ultimate Loss Ratios**

- **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

Please can we start the engines now, Mrs Merkel?

Major Hull losses 2012

Tyrrhenian Sea

Rock ledge
**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

Total: 4.5 USD billion
Actual increase 2010 to 2011: 11%

No data: Kazakhstan.

Offshore Energy – Gross Reported Loss Ratios
including liability – Underwriting years 1996 to 2011

As of December 2011:

2005
Katrina & Rita

2004
Ivan

2008
Ike

2009-11 no major hurricane activity, but...

Soft market

0% 50% 100% 150% 200% 250% 300% 350%

paid 9th year
paid 8th year
paid 7th year
paid 6th year
paid 5th year
paid 4th year
paid 3rd year
paid 2nd year
paid 1st year
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

Questions?

AND THAT'S MY LAST SLIDE. ANY COMMENTS?

YOU STOLE AN HOUR OF MY LIFE. SOMETHING INSIDE ME DIED. I WILL NEVER HAVE ANOTHER GOOD DAY.

I WENT IN WITH LOW EXPECTATIONS. THEY CAN’T HURT YOU IF YOU’RE ALREADY DEAD.