Global Marine Insurance Report 2014

Astrid Seltmann
Vice chairman, Facts & Figures Committee
http://iumi.com/committees/facts-a-figures-committee
Analyst/Actuary @ Cefor
www.cefor.no
Goal of 2014 market update
Not the goal of 2014 market update:

That sinking feeling (again)

The Economist, August 30th – September 5th 2014
Goal of 2014 market update

- F&F updates on economy & marine insurance market

- Motivated – know your risk and act accordingly
  (... and buying books on models is not prohibited by any law...)

- **You** are «the market»
Global Marine Insurance Report 2014

- **Global Marine Insurance – Overview**
  - Focus: The timeline: market changes versus data issues

- **Cargo – Market & results**
  - Focus: post Sandy

- **Hull – Market & results**
  - Focus: Absence of claims – the risk remains...

- **Offshore Energy – Market & results**

@ www.iumi.com: Premiums by country / Loss ratios cargo, hull, energy
# Building up market data - premiums

<table>
<thead>
<tr>
<th>Start date</th>
<th>Area</th>
<th>Association</th>
<th>Data from</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993</td>
<td>IUMI members</td>
<td>IUMI, with Cefor</td>
<td>1992</td>
</tr>
<tr>
<td>2010</td>
<td>Russia</td>
<td>RUMI</td>
<td>more market data</td>
</tr>
<tr>
<td>2011</td>
<td>China</td>
<td>Research Vivian</td>
<td>2008</td>
</tr>
<tr>
<td>2012</td>
<td>Asia non-IUMI</td>
<td>Research Vivian</td>
<td>2010</td>
</tr>
<tr>
<td></td>
<td>Latin America complete</td>
<td>ALSUM</td>
<td>2010</td>
</tr>
<tr>
<td></td>
<td>Middle East complete</td>
<td>GAIF</td>
<td>2010</td>
</tr>
<tr>
<td>2014</td>
<td>UK – IUA</td>
<td>IUA</td>
<td>complete IUA market</td>
</tr>
<tr>
<td></td>
<td>Africa FANAF countries</td>
<td>FANAF/CESAM</td>
<td>2010</td>
</tr>
<tr>
<td></td>
<td>USA</td>
<td>AIMU</td>
<td>complete US market</td>
</tr>
</tbody>
</table>

**Premiums change also backwards!**
Marine premium 2008-2013 – as of 2014

Global premium:
2012: 34.8 USD bill.
2013: 34.2 USD bill.
(both as of 2014)

2012->2013: - 1.7% no premium growth

UK-IUA adjusted

2008: China
2010: non-IUMI Asia

Latin America, Middle East, Africa complete

Europe
Asia/Pacific
Latin America
North America
Middle East
Africa

Marine premium 2008-2013 – as of 2014

2008: China
2010: non-IUMI Asia

Latin America, Middle East, Africa complete

2012->2013: - 1.7% no premium growth

UK-IUA adjusted

2012: 34.8 USD bill.
2013: 34.2 USD bill.
(both as of 2014)
USD Exchange rate against selected currencies

Index, 2000=100%

Exchange rates not necessarily correlated -> impact on USD premiums!
Marine Premium 2013 - by line of business

- Global Hull: 25.0%
- Transport/Cargo: 53.1%
- Marine Liability: 6.5%
- Offshore/Energy: 15.4%

Total: $34.2 USD billion
Change 2012 to 2013: -1.7%
Marine Premium 2013 – by region

Total: 34.2 USD billion
Change 2012 to 2013: -1.7%
P&I Clubs International Group

Gross Calls (premium) 2013 – Operational location

Calls 2013:
UK: 2.25
Nordic: 1.03
Japan: 0.26
US: 0.09
Total: 3.63 (USD billion) + 0.23
Global Marine Insurance Report 2014

- Global Marine Insurance – Overview
  - Focus: The timeline: market changes versus data issues

- Cargo – Market & results
  - Focus: post Sandy

- Hull – Market & results
  - Focus: Absence of claims – the risk remains...

- Offshore Energy – Market & results
Cargo Premium 2013 - by region

Total: 18.2 USD billion
Change 2012 to 2013: -0.5%
Cargo Premium 2013 - by markets

Total: 18.2 USD billion

* incl. proportional and facultative reinsurance
Cargo Premium / World Trade Values & Exports

Index of evolution, 1995=100%

Upswing in trade continues.

Some cycle irregularities due to exchange rates.

Cargo premium stagnates - but different by region.

Source: World Trade Values: IMF
Cargo – Gross* Ultimate Loss Ratio
Europe/USA**, Underwriting years 1996 to 2013

Since 2007:
Deterioration of good 2002-2006 results.

2009-2013
2011-2013 start at about 72%.

2012 Sandy affects mainly US.

* Technical break even: gross loss ratio does not exceed 100% minus the expense ratio (usually 20%-30% acquisition cost, capital cost, management expenses)
** Data: Belgium, France, Germany, NL, Italy, Spain (until 2007), UK, USA
Cargo – Gross* Ultimate Loss Ratio

as-if excluding Sandy

2010-2013
Similar results
70%+. Little or no technical profit.

But:
Cargo results differ strongly by region.
Some do well.
No unique picture.

* Technical break even: gross loss ratio does not exceed 100% minus the expense ratio (usually 20%-30% acquisition cost, capital cost, management expenses)
** Data: Belgium, France, Germany, NL, Italy, Spain (until 2007), UK, USA
Cargo – Gross* reported Loss Ratios
Europe/USA**, Underwriting years 2004–2013, as at 1, 2, 3, 4, 5 years

- Recent loss ratio level
- Previous loss ratio level
Cargo – Gross* reported Loss Ratios
Europe/USA**, Underwriting years 2004–2013, as at 1, 2, 3, 4, 5 years

Recent loss ratio level

Recent uw years:
Gross ultimate loss ratio expected to end at 70%+

2011-13:
Start at similar level (72%).

2012: Sandy effect

2013: similar to or exceeding 2011.
Summing up cargo

• Upswing in trade continues, cargo premium stagnates.

• Without Sandy, 2010-2013 show similar loss ratios.

• Claims pattern differ in recent years. Impact of natural catastrophes (Thailand floods, Sandy).

• Claim cost unlikely to decrease. Increased accumulation risk, moral hazard, theft, natural catastrophes, sanctions.

• Results differ by region – some do well, some deteriorate.

• Future uncertain – difficult conditions continue.
Global Marine Insurance Report 2014

- **Global Marine Insurance** – Overview
  - Focus: The timeline: market changes versus data issues

- **Cargo** – Market & results
  - Focus: post Sandy

- **Hull** – Market & results
  - Focus: Absence of claims – the risk remains...

- **Offshore Energy** – Market & results
Hull Premium 2013 – by region

Total: 8.53 USD billion
Change 2012 to 2013: -0.8%
Hull Premium 2013 – by markets

- China: 10.4%
- France: 4.1%
- Italy: 3.5%
- Japan: 8.3%
- Korea, Republic: 3.7%
- Netherlands: 4.0%
- Nordic: 10.9%
- Spain: 2.7%
- UK (IUA): 5.8%
- UK (Lloyds): 16.0%
- Latin America: 8.2%
- Other: 19.4%
- USA: 3.2%
- Other: 19.4%

** includes proportional and facultative reinsurance
Hull Premium 2004-2013 – selected markets

France, Italy, USA, others: some increase until 2008/2009, some decrease since.
Hull Premium / World Merchant Fleet

Index of evolution, 1995 = 100%

Sources: Insured vessel values: Cefor NoMIS statistics; No. Ships & tonnage: ISL Bremen
Hull – Gross* Ultimate Loss Ratio

Europe/USA**, Underwriting years 1996 to 2013

2011
Strong major loss impact
(Costa Concordia & others)

2012/2013
Less major loss impact as in 2011.

2013
Improvement, but technical result still at loss (18th year).

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

** Data: Belgium, France, Germany, NL, Nordic (Cefor), Italy, Spain (until 2007), UK, USA
Hull – Gross* Reported Loss Ratio
Europe/USA**, Underwriting years 1996 to 2013

2011:
Unprecedented total loss impact.

2012:
Similar to pre-Costa Concordia years.

2013
Starts better.

Sustainable change?

* Technical break even: gross loss ratio does not exceed 100% minus the expense ratio (usually 20%-30% acquisition cost, capital cost, management expenses)
** Data: Belgium, France, Germany, NL, Nordic (Cefor), Italy, Spain (until 2007), UK, USA
Global Marine Insurance Report 2014

- **Global Marine Insurance – Overview**
  - Focus: The timeline: market changes versus data issues

- **Cargo – Market & results**
  - Focus: post Sandy

- **Hull – Market & results**
  - Focus: Absence of claims – the risk remains...

- **Offshore Energy – Market & results**
Hull claims trends

- **Claim frequency**: Down after peak in 2008. Long-term positive to stable trend.
- **Total loss frequency**: Long-term positive trend.
- **Repair cost**: Down after peak in 2008, stable to decreasing since.
- **Major losses**: Strong impact on 2011 results and other years. First half year 2014: next to none.
Claims xs 10 USD million as % of total cost

Cefor NoMIS statistics, as of June 2014 (claims reflect 100% of each vessel)

Record-low impact of major losses in 2014.
Hull portfolio trends

- **World fleet**: continues to grow, especially tonnage

- **Insured values**:
  - Renewals: value reduction seems to normalize
  - Newbuilds: inflow of high-value vessels continues

- **Global hull premium**: 2012-2013 stagnation
Change in insured values on renewal
= insured value on renewal / insured value previous underwriting year for same vessel

- 6.0%  6.3%  3.1%  8.5%  5.1%  14.8%  9.0%  3.8%  7.2%  5.0%  2.6%  -20.0%  -15.0%  -10.0%  -5.0%  0.0%  5.0%  10.0%  15.0%


Financial crisis effect

Some reduction to be expected due to aging of vessels.

Source: Cefor NoMIS statistics as of June 2014
The risk exposure –
Inflow of high-value vessels continues

Vessels with values xs 100 USD million as % of total insured portfolio:

Source: Cefor NoMIS statistics as of June 2014
We insure more of these...
The pricing challenge

• Missing claims experience does not mean no risk
  • Bigger ships, new technology, law & liability changes, new engine types, new fuel types, arctic routes, ...

• Major claims cannot be assessed from one year
  • Need to monitor longer time period
  • Need to know actual insured risk – potential for claims not yet experienced (Costa Concordia, Emma Mærsk, MOL Comfort,...)
  • Need to extrapolate from existing claims experience to areas with less or no statistical data.
Summing up Hull

- **World fleet** continues to grow, insured risk increases, **global hull premium** stays flat.

- **Claims cost & frequency** improve, but **major claims risk** cannot be judged from one year and follows exposure.

- **Technical results** still at loss (18th consecutive year). Some improvement, due to reduction in claims cost.

- **For sustainability**: **All** risk aspects must be considered.
Global Marine Insurance Report 2014

- Global Marine Insurance – Overview
  - Focus: The timeline: market changes versus data issues

- Cargo – Market & results
  - Focus: post Sandy

- Hull – Market & results
  - Focus: Absence of claims – the risk remains...

- Offshore Energy – Market & results
Offshore Energy Premium 2013

UK (Lloyds), 54.1%
UK (IUA), 17.5%
Nigeria, 3.3%
Brazil, 1.9%
Malaysia, 3.8%
USA, 2.9%
Nordic, 2.7%
Egypt, 2.4%
India, 2.4%
Japan, 1.7%
Italy, 2.0%
Other, 3.1%

Total: 5.2 USD billion
Change 2012 to 2013: -7.5%

No data: Kazakhstan.
Offshore Energy Premium 2004-2013

* Nordic, Nigeria, Mexico: no data available before indicated year; UK-IUA: from 2012 extended data survey; Kazakhstan: no data available;
Offshore energy premium

Energy mobiles, day rates, oil price

Index of evolution, 2000 = 100%
Offshore Energy – Gross Loss Ratios
incl. liability – Underwriting years 1996 to 2013, UK and US data

As of December 2013:

2005
Katrina & Rita

2004
Ivan

2008
Ike

2009-13 no major hurricane activity
Summing up Offshore Energy

• Volatile business, no regular patterns
• Long time lag between accident and claims payment (reducing in recent years)
• Strong global growth. Gulf of Mexico static, but lost impact since 2004
• Claims:
  • Reduced hurricane impact
  • Increasing impact of large single loss events (physical loss and liability)
• Impact of Arctic / deep-water drilling?
Goal of 2014 market update

- Update on marine insurance market √
Statistics are

The Sea is History by Derek Walcott

You are the future
Explanation of technical terms

**Gross premium** = Premium for insurance including the provision for anticipated losses (the pure premium) and for the anticipated expenses (loading), including also commission and brokerage but excluding taxes and other contributions on insurance premiums. Before deduction of any ceded reinsurance.

**Written premium** = Complete premium due for insurance policies which start, i.e. “are written”, in a specific year (= the underwriting year of the policy). Does not give any information on actual premium payments/instalments, i.e. the cash flow.

**Paid claims** = Amounts the insurer has paid for known and registered claims less recoveries.

**Outstanding claims reserve** = Claims reserve for reported, but not yet (fully) paid claims, of which the insurer has an estimation of the total amount to be paid. Includes loss adjustment expenses = Sum of total claims estimates minus any amounts already paid for these claims.

**Total claim** = Paid amounts + outstanding claims reserve for all reported claims.

**IBNR** = “Incurred but not reported” = additional claims reserve on top of the outstanding claims reserve, and which for claims incurred, but not yet known or registered in the insurer’s system. The necessary IBNR reserve is derived by statistical methods based on historical claims ladder statistics.

**Loss ratio** = Claims divided by premiums. Indicator of whether premiums are calculated correctly to match claims and other expenses.

**Gross loss ratio (in this presentation)** = Sum of total claims (and IBNR reserves), divided by gross written premiums

---

**Underwriting year basis** = Insurance figures are registered with the calender year in which the insurance policy starts, and to which the covered risks accordingly attach to. Example: a policy with cover period 01.07.06-30.06.07 has underwriting year 2006. Both claims occuring in 2006 and 2007 for risks attaching to this policy are thus attributed to underwriting year 2006. The underwriting year is not closed, so underwriting year figures change as long as there are payments related to policies with this underwriting year.

**Accident year** = Claims are registered with the calendar year in which an accident happens. Claims attaching to the same policy may thus be attributed to different accident years. Example: for the policy with cover period 01.07.06-30.06.07 a claim occuring in 2007 has accident year 2007, but underwriting year 2006. The accident year is not closed, so figures will change as long as there are claims payments related to claims occured in that accident year, e.g. a claim payment made in 2009 for an accident which happened in 2007 will be attributed to accident year 2007.

**Accounting year (also booking year)** = Insurance figures, regardless of their original source date, are booked into that year of account which is open at the time of actually entering the figures in the books. Contrary to the underwriting and accident year, the accounting year is closed at some point in time, usually at the end of one calendar year, such that figures do not change any more once the accounting year is closed. These give the insurance results usually published in companies’ annual reports.