

Global Marine Insurance Trends

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Marine insurance figures as of end 2022, with some trends into 1st half year 2023.







Edinburgh Teaser



Issues 2023



- Post-pandemic trends
- War
 Challenge to quantify, as partly included in standard covers, partly with specialised war insurers
- Climate change / Nat-cat
- Value aggregation
- Fires
- Inflation
 Various effects: cargo and vessel values, energy/fuel costs, claims repair cost
- ESG / sustainability / emission reduction

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Please note & Disclaimer



Figures reflect the **2023 state of reporting**. For a number of countries, the figures are <u>estimates</u>. Data for previous years often <u>adjusted retrospectively</u>.

Data is reported to the degree possible according to the agreed IUMI definitions (see here) but data returns may not be consistent across countries.

For comparison between years, use the <u>updated</u> premium and loss ratio data as of 2023!1)

Comparing this year's presentation to last year's presentation may lead to wrong conclusions as it ignores that figures are updated retrospectively.

Focus is on **identifying market trends.** Absolute figures are subject to error margins (reporting backlog, retrospective adjustments, wrong in-/exclusion of portfolios...).

All information given is of informational and non-binding character.

Figures related to the marine market's performance reflect **market averages.** They do <u>not</u> disclose single units' results. As with all averages, individual units may out- or underperform compared to the average.

IUMI aims to provide information as available and raise consciousness for the importance of a fact-based evaluation of the risk exposure covered – and inspire everyone to critically evaluate real and seeming facts!

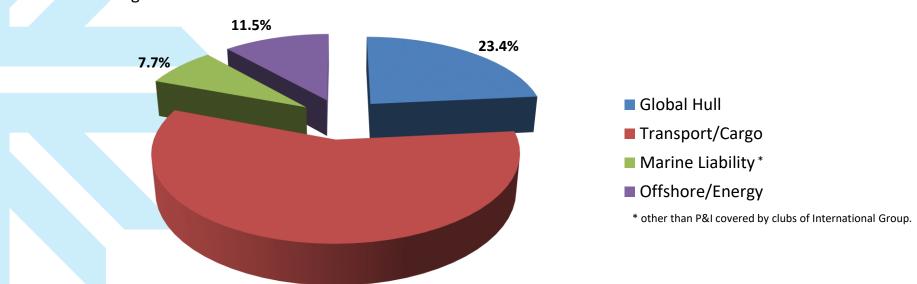
¹⁾ for IUMI members at https://iumi.com/statistics/iumi-member-statistics

Marine premiums 2022 – by line of business

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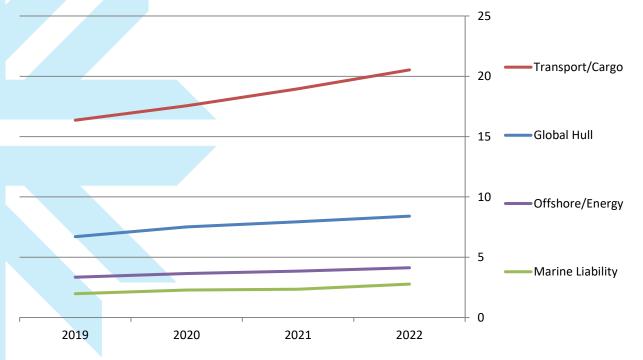
Total estimate 2022: USD 35.8 billion / Change 2021 -> 2022: 8.3% NB: Exchange rate effects

57.3%



Premiums & shares by line 2019-2022

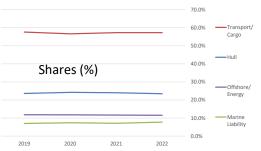




Increase in all lines since 2019.

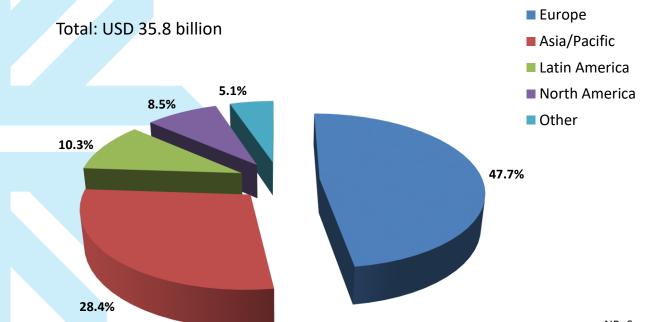
NB: Absolute premium trends reflect the combined effect of changes in the total insured volume/values and applied rates per unit.

Drivers: trade volume/values, vessel values, exchange rates, geopolitical changes, market conditions (capacity)



Marine premiums 2022 – by region



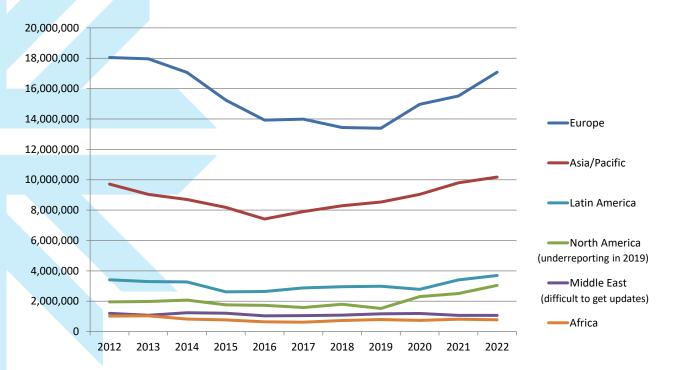


NB: Some figures updated retrospectively, graph not directly comparable with previous presentations.

Premium (USD) by region 2012-2022

as of 2023





Europe: Bottom passed after years of decreases, upward trend since.

Asia: increase continues but flattening out (China).

North America, LatAm also increasing.

Drivers: increase/decrease in trade volume/values, market conditions (rates, capacity), exchange rates. War part of the story but difficult to quantify/single out.

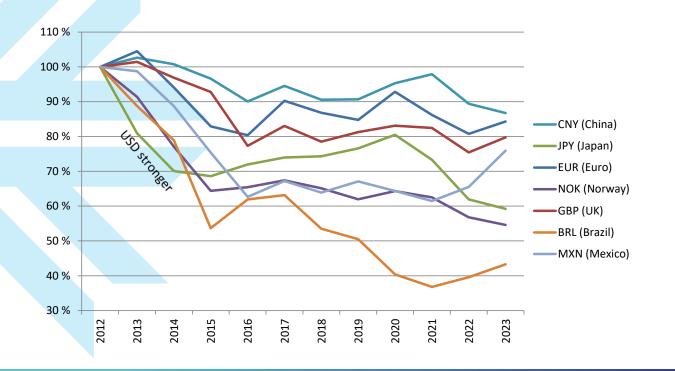
2022: USD 35.8 bill.

2021: USD 33.1 bill. (Status 2023)

USD Exchange rates 2005-2022

Index 2012=100%, against selected currencies, as of December each year (2023 as of July)





Statistics in USD, influenced by exchange rates.

Varies between currencies.

Premium trends may look different in local currency, particularly for cargo.

Depreciation of CNY and JPY against USD in 2021/2022, while EUR and LatAm currencies bounced back.

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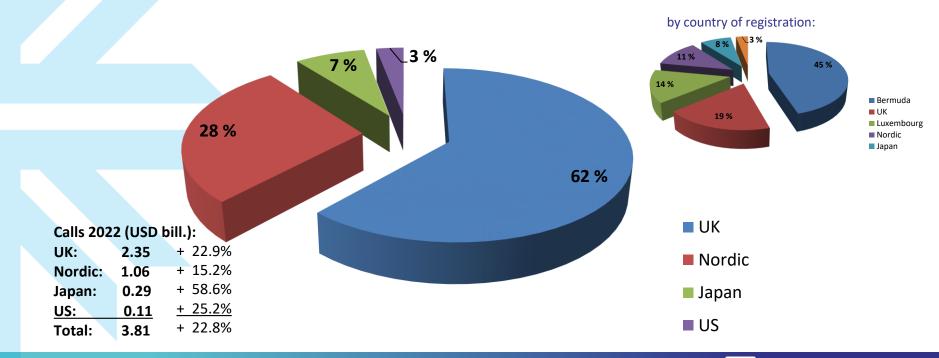


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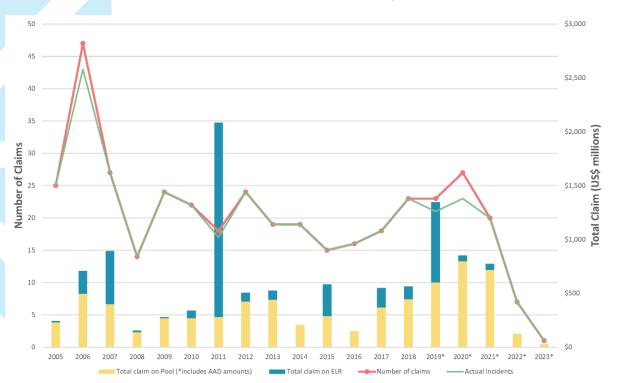


P&I International Group – Income Gross calls 2022 (premiums) – by operational location, Source: Int. Group of P&I Clubs





P&I Pool claims by policy year Source: Int. Group of P&I Clubs, Claims as of 23 July 2023





Claims impact rising again after a period with low claims impact. P&I also more affected by the pandemic than other marine lines (crew, passengers).

Claims still to develop on the youngest years, long backlog.

Ukraine war: Sanctions prevented partly renewal of coverages.

P&I complex business with high liabilities.

See www.igpandi.org

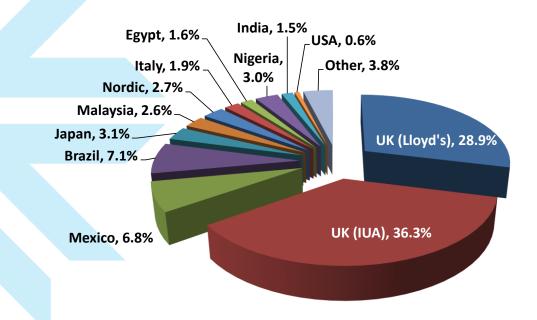
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Offshore energy premium 2022

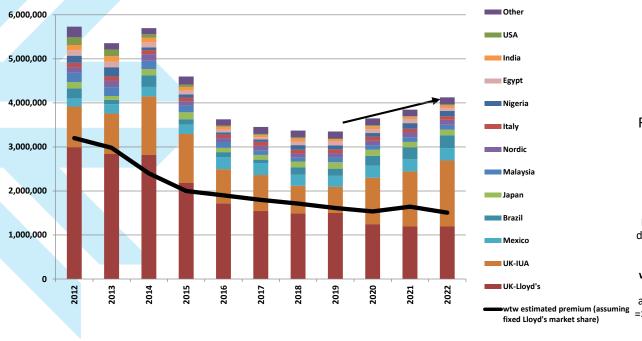
Total estimate: USD 4.1 billion / Change 2021->2022: 7.3%





Offshore energy premium 2012-2022: bottom passed





Premiums show upward trend after bottom reached in 2019.

Oil price rally 2020 to mid-2022 induced new activity.

Recent reallocation of market shares.

Future trend more uncertain, new drop in oil price 2022 into 2023.

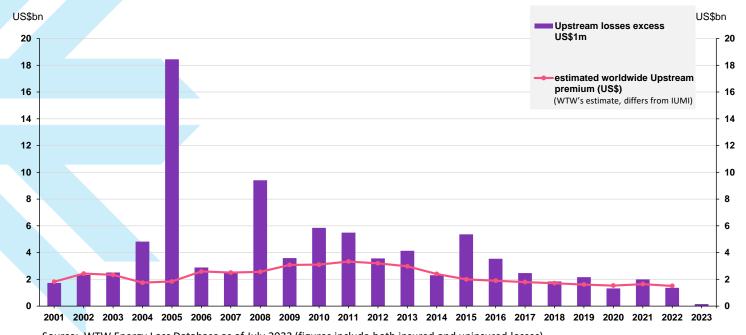
IUMI: Premiums reported by associations. Some double-reporting due to global nature of business. => Some overestimation of global premium.

wtw (Willis Tower Watson): Derived from Lloyds triangulation. Global premium calculated by assuming a fixed Lloyd's market share in all years. => Underestimation of global premium. Not robust against changes in Lloyds' market share.

WELD Upstream Energy losses 2000-23 versus estimated Upstream premiums



Source: Willis Towers Watson (wtw); Losses excess of US\$1m



Long backlog in reporting/paying energy losses. Youngest years not mature yet and will still develop.

Source: WTW Energy Loss Database as of July 2023 (figures include both insured and uninsured losses)

Average oil price per month (USD/bbl)

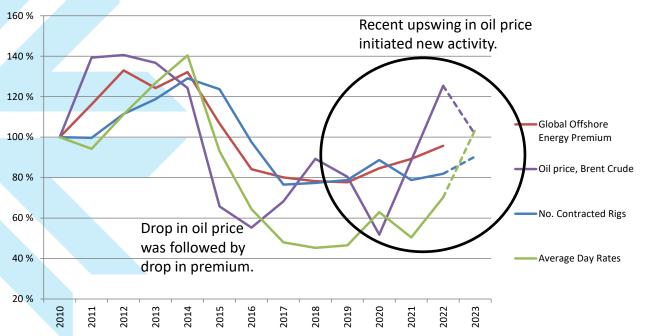
World bank commodity price data, January 2005 to August 2023





Energy premium versus mobile units, day rates, oil price





Oil price rally 2021-2022, followed by upswing in offshore activity (rigs/rates), typically with ca. 18 months' time lag.

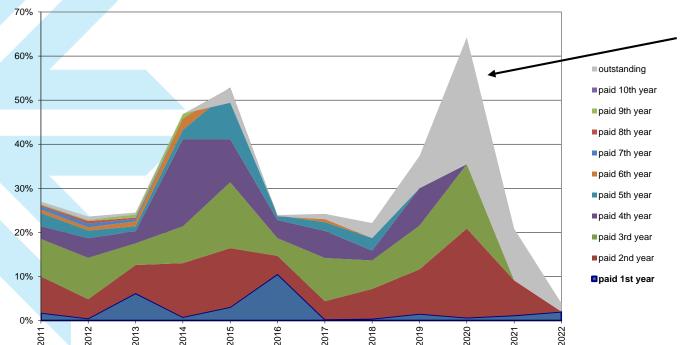
More activity usually generates more premium volume.

Oil price dropped again 2022-23 but downward trend stopped after OPEC decision June 2023.

Sources: Premiums: IUMI, Av. Day Rates, No. Contracted Rigs: Clarksons Research (as at 1 January), Oil Price: World Bank commodity price data (2023 as of July)

Offshore energy loss ratios — Europe* Underwriting years 2011-2022, incl. liability, as of year-end 2022 Gross premiums, paid & outstanding as reported





2020: Further increase compared to last year's status (< 40% as of 2022).

Long backlog in claims reporting, and rather increasing further. Youngest underwriting years will still develop.

Fragile balance.

^{*} Lloyd's, IUA, Nordic

Offshore energy – Summary



- COVID-19 temporarily reduced demand for oil but strong recovery from 2021.
- Ukraine war drove up energy prices.
- Historically 18 months' time lag between improved oil price and visible increase in activity.
- More risk retained in recent years. Insurance capacity not equally reduced.
- Premiums: Bottom passed, increasing since 2021 (but capacity also on the rise again).
- Claims: Change from the benign claims environment of the previous years? Long time lag until claims are fully settled, particularly for liability and if business interruption involved.
- 2022 active hurricane season. 2023 to date on average.
- Fragile balance recent years between reduced premiums and modest claims impact.
- Activity catching up in 2022 will the upswing last?
- Risks/claims arising from unit reactivation to be monitored.

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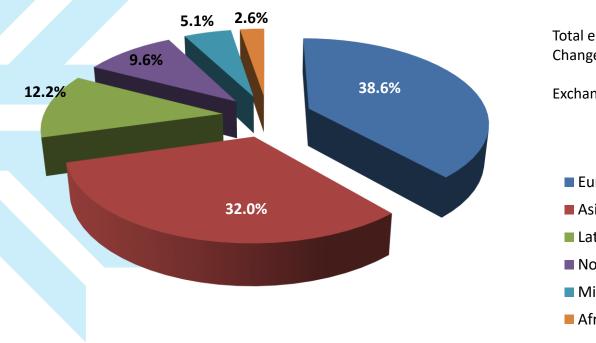
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Cargo premiums 2022 – by region





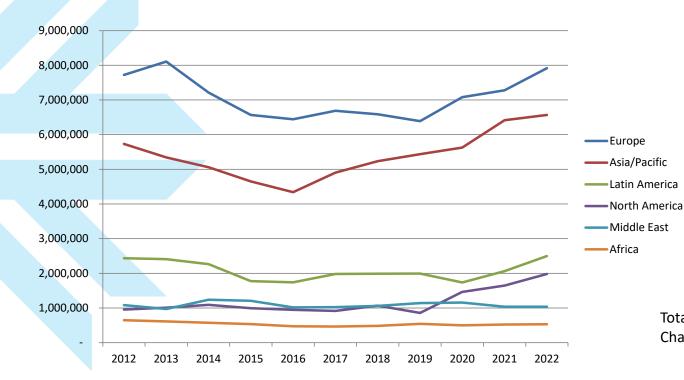
Total estimate: USD 20.5 billion Change 2021 -> 2022: 8.3%

Exchange rate effects strongest on cargo premium.

- Europe
- Asia/Pacific
- Latin America
- North America
- Middle East
- Africa

Cargo premium trends – by region



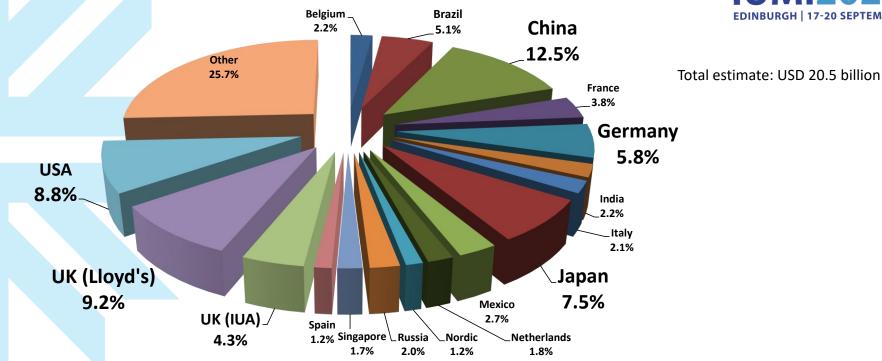


Growth in all areas.
Asia flattening out.
(combination of economic factors and depreciation of major currencies).

Total estimate: USD 20.5 billion Change 2021 -> 2022: 8.3%

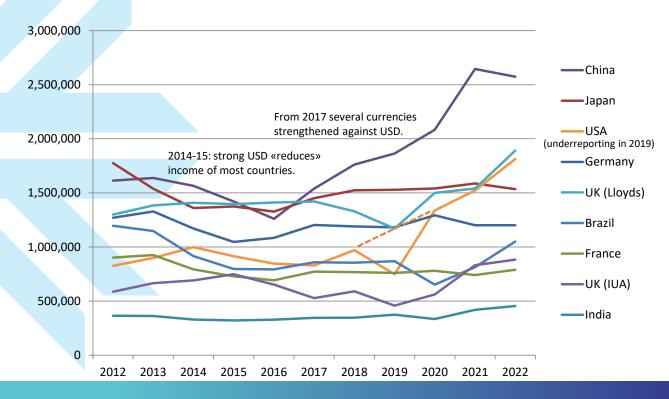
Cargo premiums 2022 – by markets





Cargo premiums trends - major markets





China growth flattening in 2022 (partly due to depreciation of CNY against USD, in CNY 6.7% growth).

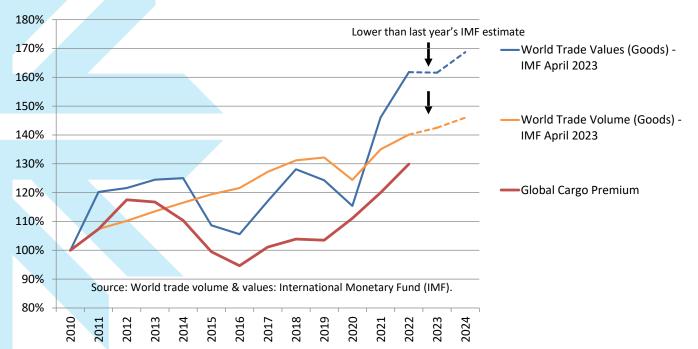
Similar for Japan.

USA strong recent growth. Postpandemic increase also in other markets (Lloyd's, IUA, Brazil).

Major drivers: global trade, rate adjustments, market conditions, exchange rate effects.

Cargo premium versus World trade values & volume

Index 2005=100%





Pandemic caused short-term reduction in world trade, followed by strong recovery. Further growth projected but uncertainty around forecasts.

Cargo premium typically follows world trade values with time lag.

Scope of risk covered & risk of event losses (accumulation) need to be taken into account.

IMF April 2023: "A Rocky Recovery" IMF July 2023: "Near-Term Resilience, Persistent Challenges"

https://www.imf.org/en/Publications/WEO/Issues/2023/04/11/world-economic-outlook-april-2023 https://www.imf.org/en/Publications/WEO/Issues/2023/04/11/w

orld-economic-outlook-april-2023

Cargo loss ratios







Interpretation of loss ratio slides:



NB: The loss ratios are based on different data:

Europe: Underwriting year, gross premiums, incurred¹ claims

USA: Accounting year, gross premiums, incurred claims

Asia: Accounting year, gross premiums, paid claims only

LatAm: Accounting year, gross premiums, paid claims only

¹ Incurred claim = paid + estimated outstanding claims reserves

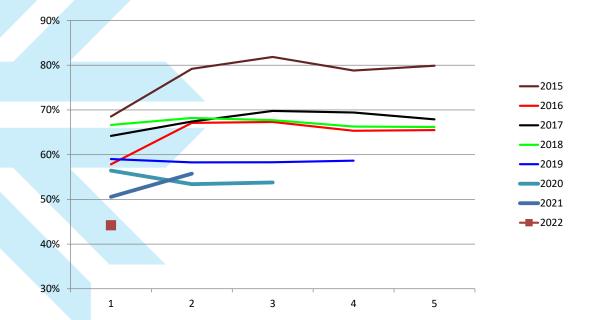
Underwriting year: claims and premiums relate to the same coverages

Accounting year: premiums and claims paid in any one calendar year (independent of insurance coverage periods)

Cargo – Loss ratios* Europe**

Underwriting years 2011-22, as reported at 1,2,3,4,5 years Gross premiums, paid + outstanding claims





Recent underwriting years returned to a more 'normal' (= flatter) pattern after a few years with extraordinary upwards claims adjustments.

2022 starts at lowest level since 2015.

Sustainable improvement?



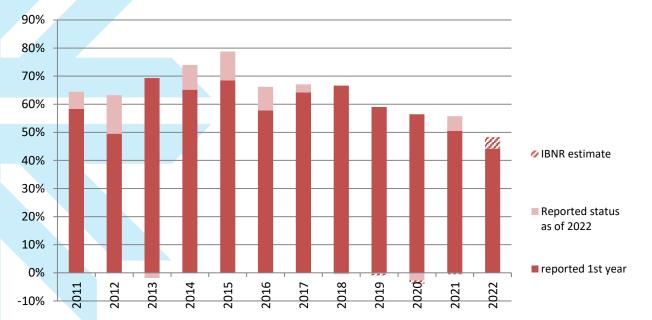
^{*} Technical break even: gross loss ratio does not exceed 100% minus the expense ratio (acquisition cost, capital cost, management expenses)

^{**}Data included from: Belgium, France, Germany, Netherlands, Italy, UK

Cargo – Ultimate loss ratios* Europe**

Underwriting years 2011-22, gross premiums, paid+outstanding claims





After years with heavy event impact, loss ratios improved since 2019.

Outlier losses & Nat-cat events:

2015: Tianjin port explosions

2016: Hanjin, Amos-6 satellite

2017: Hurricanes / Nat Cat

2018: Mærsk Honam / hurricanes

2019: Fires, Golden Ray capsize

2020: Nashville Tornados

2021: X-Press Pearl, Ever Given (GA),

hurricane Ida

2022: vessel fires, wildfires, draughts, floods, active hurricane season

2023: fires, wildfires/floods

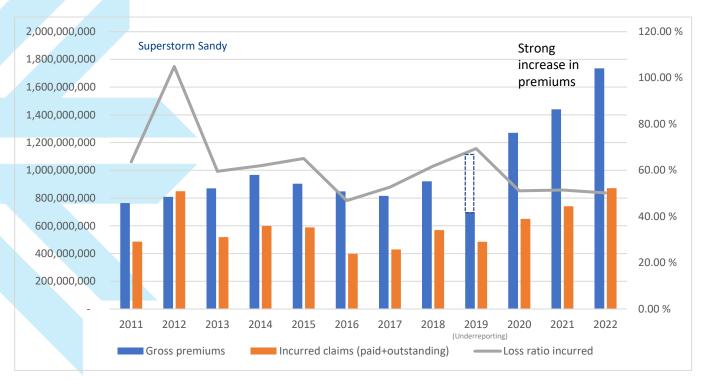


^{*} Technical break-even: gross loss ratio does not exceed 100% minus the expense ratio (acquisition cost, capital cost, management expenses)

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Cargo – Loss ratios US

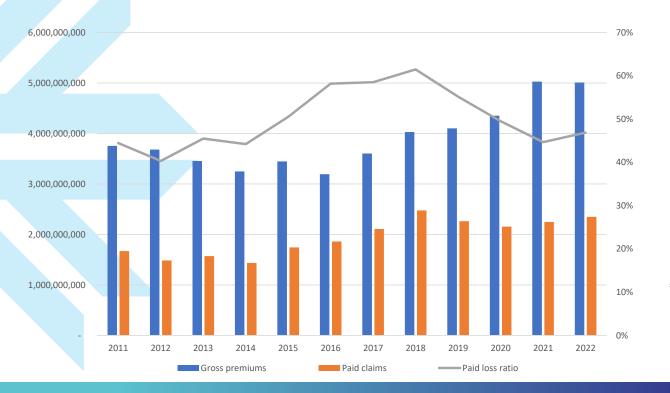
Accounting year, gross premiums, incurred claims (paid+outstanding)





Cargo – Loss ratios Asia*

Accounting year, gross premiums, paid claims (USD)





Stable 40-45% until 2014.

Increase 2015-18. Probable impact by Tianjin port explosions & Nat Cat. losses.

Improving from 2019.

* China, Japan, Hong Kong, India from 2015.

Singapore not included (incurred figures available but cannot be split), China, Japan, Hong Kong only paid available.

Cargo – Loss ratios Latin America*

Accounting year, Gross premiums, paid claims (USD)





Relative stable around 50-55%.

Peak in 2015 related to major claim impact in one country.

2020: underreporting of claims in two countries.

*Figures included from: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica (from 2010), D. Republic (from 17), Ecuador, El Salvador (from 14), Guatemala, Honduras, Mexico, Panama, Paraguay (from 14), Peru, Venezuela (until 14).

Cargo – Summary



- Improved results across markets
- Supply chain issues resolved
- Main drivers: upswing in trade (insurable volume/values) with strong post-pandemic recovery, rate adjustments

Persisting challenges:

- Fires on-board vessels (severe fires in both 2022 and 2023)
- Mis-declared cargo
- Increased value accumulation on single sites (ports, vessels).
- Increase in severe weather conditions (wind/wave force, floods, wildfires/draughts)
- Increased risk of large event losses (both Nat-cat and man made)
- Geopolitical tensions

2023 Outlook

- Upswing in trade continues but uncertainty related to geopolitical tensions and regional economy
- Return to pre-pandemic activity, inflation and increasing Nat-cat risk likely to increase claims impact.



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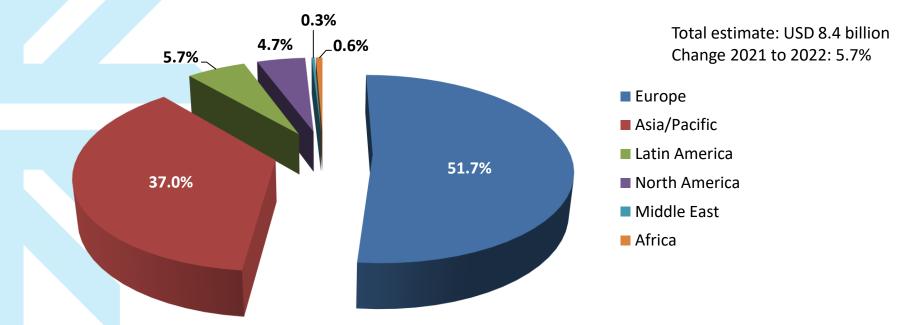
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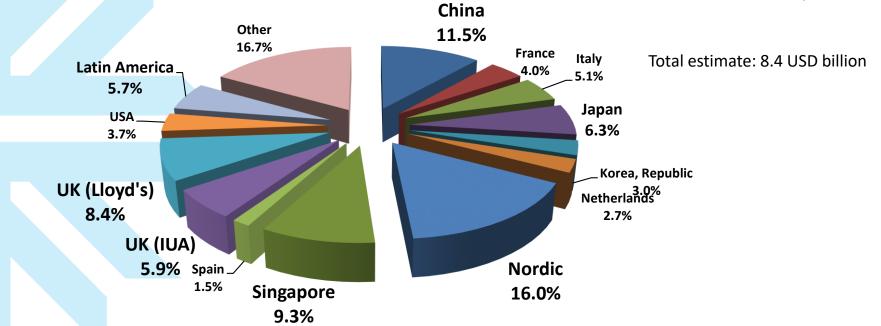
Hull premiums 2022 – by region





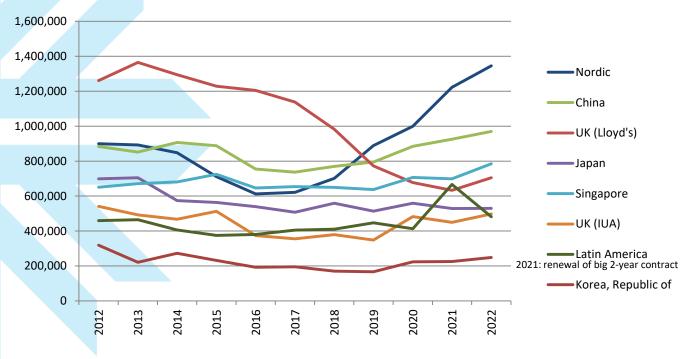
Hull premium 2022 – by markets





Hull premium trends - major markets







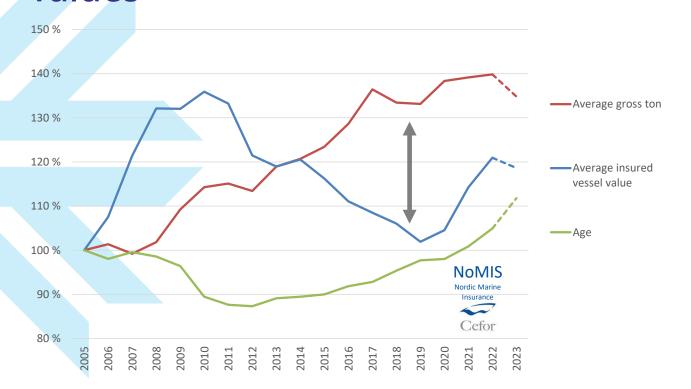
Hull Portfolio trends





Average gross ton, age & vessel values





Until 2019 increasing gap between average vessel size and values.

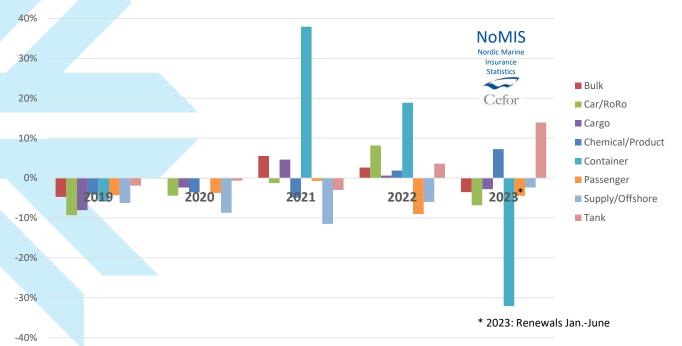
From 2020 gap starting to close, but big values increases mainly driven by container – and followed by downward adjustment from mid 2022.

Average fleet age continues to increase with reduced new builds in recent years.

Change in insured values on renewal*

2019-2023, comparing the value of vessel which are insured in two consecutive years





Recent value adjustments differ greatly by segment.
Reflect activity/demand.

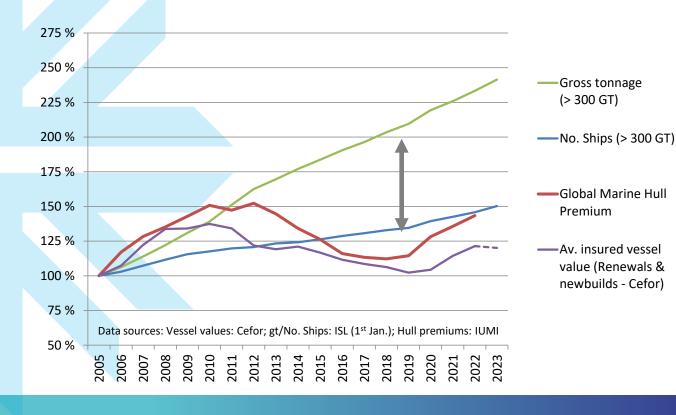
Big variation for container, reflecting 2021/22 boom, followed by downward trend.

Some improvement for supply/ offshore after increase in oil price and offshore activity.

Tank vessels in demand in 2023.

Under unchanged market conditions some value reduction expected due to aging of vessel.

Hull premium versus world fleet





World fleet growth continues.

Downward trend in hull premium and vessel values started to reverse in 2020.

Drivers: increasing vessel values, previous bad results.

Upward trend in values driven by strong demand for particularly container vessels but changed again second half year 2022.

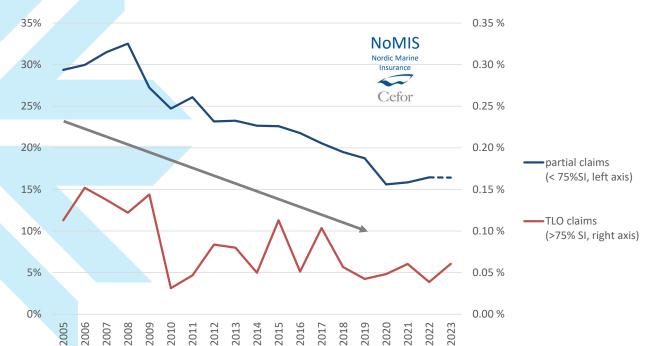
Hull Claims trends





Hull claims frequency: Post-pandemic increase but still moderate





Overall claims frequency

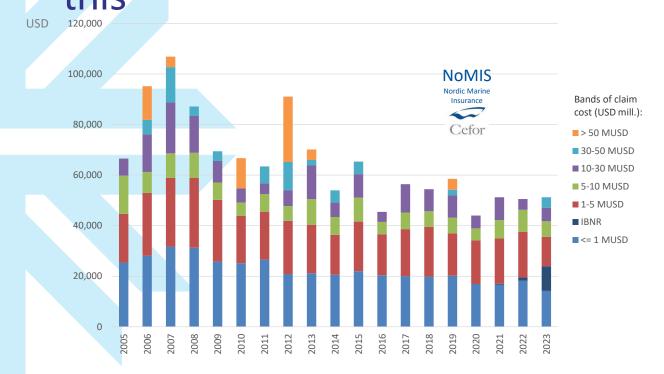
Long-term downward trend. Post-pandemic increase after all vessel segments resuming full activity but still moderate.

Total loss frequency

Long-term downward trend. Some increase in 2023 but continues to oscillate around low level around 0.05%.

Claim cost per vessel*: Back at prepandemic level but not exceeding this





Some increase in major losses in 2023.

And what about inflation? We'll get back to that.

Interested in hull trends?
Cefor half-year hull trend update 2023
https://cefor.no/statistics/nomis/2023/2023-half-year-hull-trend-report/





^{*} Figures include total losses and represent H&M insurance. Builder's risk not included.

Calculated as total claim cost per year, divided by number of insured vessels per year (including those without claims)

Hull Loss ratios

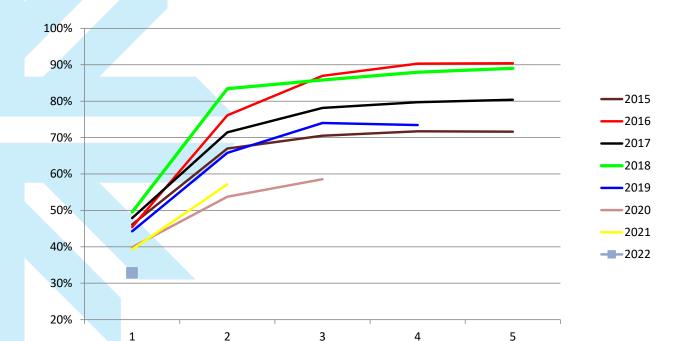




Hull – Loss ratios* Europe**

Underwriting years 2011-22 as reported at 1,2,3,4,5 years Gross premiums, paid + outstanding claims





2022 starts at lowest level of all years since 2015.

Combined effect of recent increases in hull premiums and moderate claims impact.

Impact of inflation on repairs may however lead to steeper increase in claims costs.

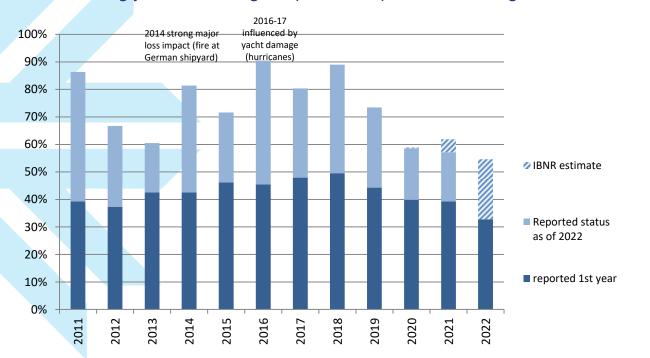
^{*} Technical break even: gross loss ratio does not exceed 100% minus the expense ratio (acquisition cost, capital cost, management expenses)

^{**} Data included from: Belgium, France, Germany, Italy, Nordic (Cefor), UK, USA

Hull – Ultimate loss ratios* – Europe**

Underwriting years 2011-22, gross premiums, paid+outstanding claims (USD)





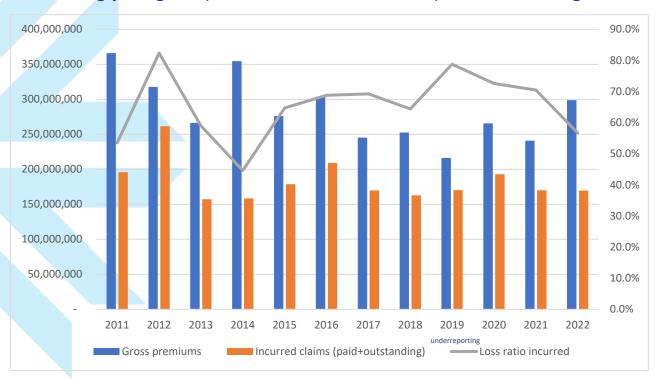
Since 2019 results improved.

Various drivers but may be about to change again.

Market adjustments following years with negative results flatten out / capacity / some effect from increased war premiums / claims impact likely to increase from benign level of recent years.

Hull* – Loss ratios US

Accounting year, gross premiums, incurred claims (paid+outstanding)





Similar recent positive trend.

NB: accounting year: claims attaching to uw year are paid over several accounting years.

*Large share represents inland hull ('brown water')



Hull – Loss ratios Asia*

Accounting year, gross premiums, paid claims





* China, Japan, Hong Kong, India from 2015.

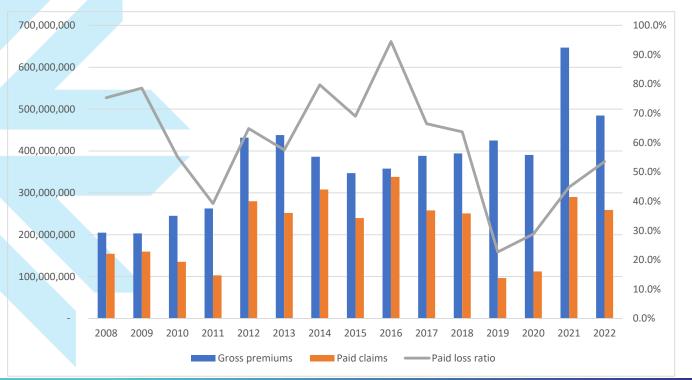
Singapore not included. Incurred figures available but cannot be split, for China, Japan, Hong Kong only paid available.

Similar recent positive trend.

NB: accounting year: claims attaching to uw year are paid over several accounting years.

Hull – Loss ratios Latin America*

Accounting year, gross premiums, paid claims





2019/2020: Low claims due to claims releases from previous years.

2021: Premium increase due to a 2-year renewal.

More variation in results. Some challenges with reporting in 2020/2021.

*Figures in graph include: Argentina, Bolivia, Brazil, Chile (from 2012), Colombia, Costa Rica (from 10), D. Republic (from 17), Ecuador, Guatemala, Honduras (08-16), Mexico (from 12), Panama (from 10), Paraguay (14-16), Peru, Venezuela (until 14).



Hull – Summary



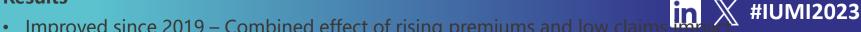
Exposure

- Last years saw hull premium adjustments after years of negative results. To some degree
 effect from war premium increases 2022.
- Gap between fleet growth and premiums/values started to reduce.
- Big value increases in some segments (container) reflected demand but started to reverse from second half year 2022. Supply/offshore slightly improving. Tank vessels in higher demand in 2023.
- High-value segments (container, cruise) fully back in business.

Claims

- Claims frequency and cost show post-pandemic increase but not exceeding pre-pandemic level.
- Total loss frequency: slight increase 2023 but long-term positive trend continues.
- Major loss impact shows some increase into 2023 after years with benign impact (exception: fires)

Results



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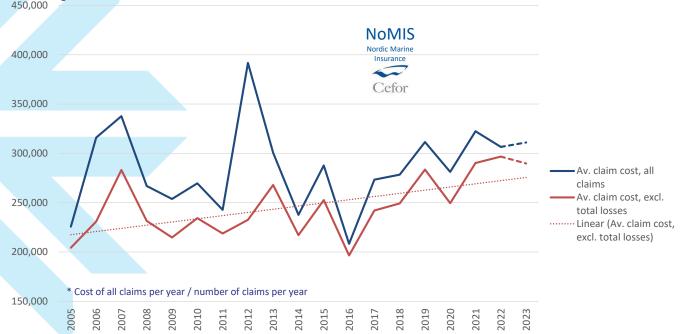
Special issues



- Large vessels/value accumulations: high-value segments back in business
- Loss of containers
- War: various effects but difficult to single out and quantify
 - Often included in standard coverages, contributes to 2022/23 premiums but not main driver.
 - Some reallocation of portfolio (coverages not renewed / special coverages issued)
 - Change in trading patterns for some vessel segments (longer/different trading routes)
- Climate change
- Value aggregation need to monitor and take potential loss cost into account
- Fires:
 - Frequency/cost trends: Check Cefor analyses: https://cefor.no/statistics/analysis-with-special-focus/
 - Most 'famous' in 2022 Felicity Ace, in 2023 Fremantle Highway
- Inflation
- ESG / sustainability / emission reduction

Average cost of hull claims*: Upward trend indicates inflation impact



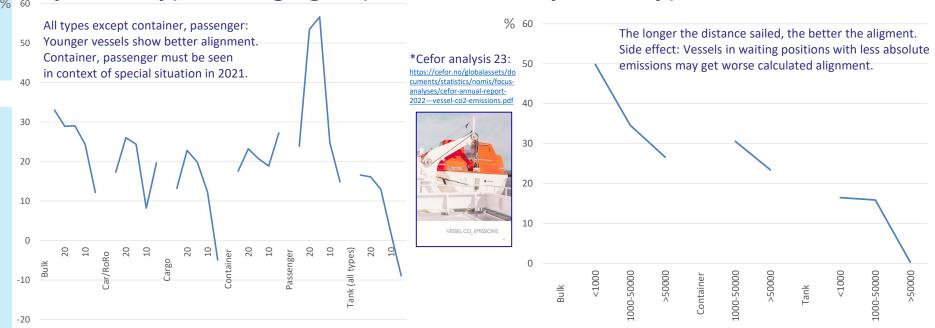


Vessel CO₂ emission alignment in 2021 against reduction trajectories*



By vessel type and age group

By vessel type and distance sailed





Summary

Main trend: positive trend across lines in recent years

But what about the future...?

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The 2023 Oracle

War, inflation, pandemics, climate, ...

Combined effect???



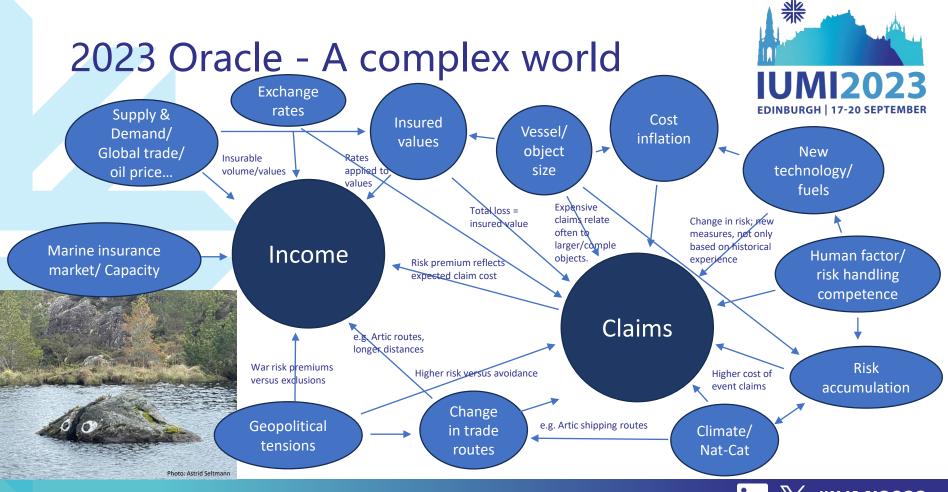




The 2023 Oracle crew







2023 Oracle – Some headwinds ahead



- Global trade: growth predicted but regional and geopolitical challenges
- Claims impact: expected to rise Shipping activity / high-value vessels / inflation impact / changing risks / fleet aging / increasing nat-cat impact / event losses
- Capacity: attracted again by positive results?
- Complexity: increasing ESG/emission reduction goals, regulations, compliance
- Energy costs, interest rates: transport costs to increa
- A decisive period ahead. Take energy efficiency to the next level, think beyond fuels. (DNV Knut Ørbeck, 12 September 2023, Launch of Maritime Forecast to 2015)
- Shipping might be sailing into a hurricane, get prepar (Martin Stopford at ISSS 11 September 2023)



Complexity & Uncertainty: get prepared!



Thank you!

Astrid Seltmann
Vice chair IUMI Facts & Figures Committee
Analyst of the Nordic Association of
Marine Insurers (Cefor)







Technical terms



Gross premium = Premium for insurance including the provision for anticipated losses (the pure premium) and for the anticipated expenses (the pure premium) and for the anticipated expenses (the pure premium) and for the anticipated expenses (the pure premium). 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

<u>Underwriting year basis</u> = 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 occurring 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 occurred 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.