



# GLOBAL MARINE INSURANCE REPORT 2018

Astrid Seltmann

Analyst/Actuary, The Nordic Association of Marine Insurers (Cefor)

Vice chair, IUMI Facts & Figures Committee

# Please note & Disclaimer

Figures reflect the 2018 state of reporting and will change retrospectively.  
Some figures are estimates.

For comparison purposes, therefore compare the updated premiums and loss ratios at [www.iumi.com](http://www.iumi.com) !

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

Figures related to the marine market's performance reflect market averages.  
They do not disclose single companies' or local markets' results. As with all averages, individual underwriting units may out- or underperform compared to the average.

IUMI's aim is 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 do their own critical evaluation of real and seeming facts.

# Global Marine Insurance Report



**Market overview**

Income by line / by region

**P&I**

Income / Claims

**Cargo**

Premiums / Loss ratios

**Hull**

Income / Vessel values / Claims / Loss ratios

**Offshore energy**

Income / Claims / Loss ratios

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**Additional data**  
(<https://iumi.com/statistics>)

Marine premiums by line of business by country  
Loss ratios triangulations Hull, Cargo, Energy

# 2018 Focus



- Cargo: Impact of recent years' event and outlier losses.
- Hull: The gap between income, risk and costs.
- Offshore energy: Oil price recovering – What now?
- The aftermath of the 2017 hurricanes.

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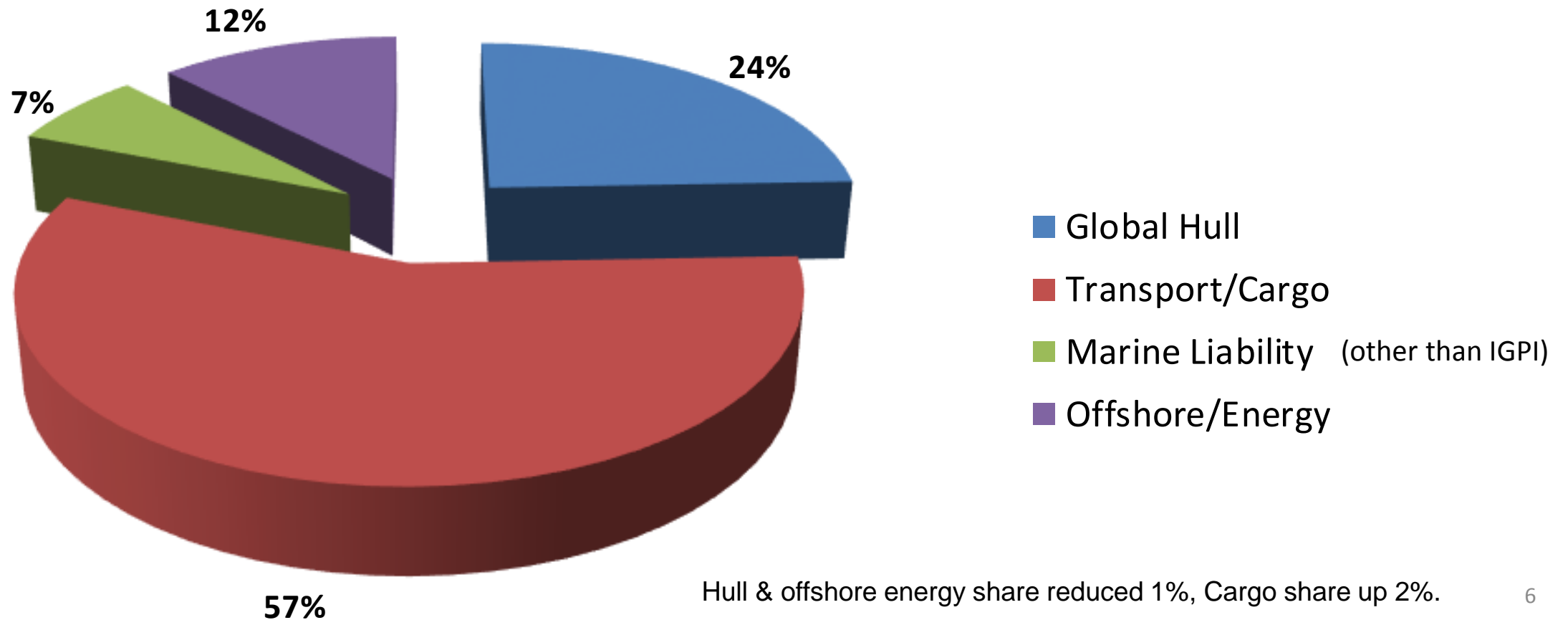
# Marine Premium 2017

by line of business



Total estimate 2017: 28.5 USD billion / Change 2016 to 2017: +2%

NB: Exchange rate effects!

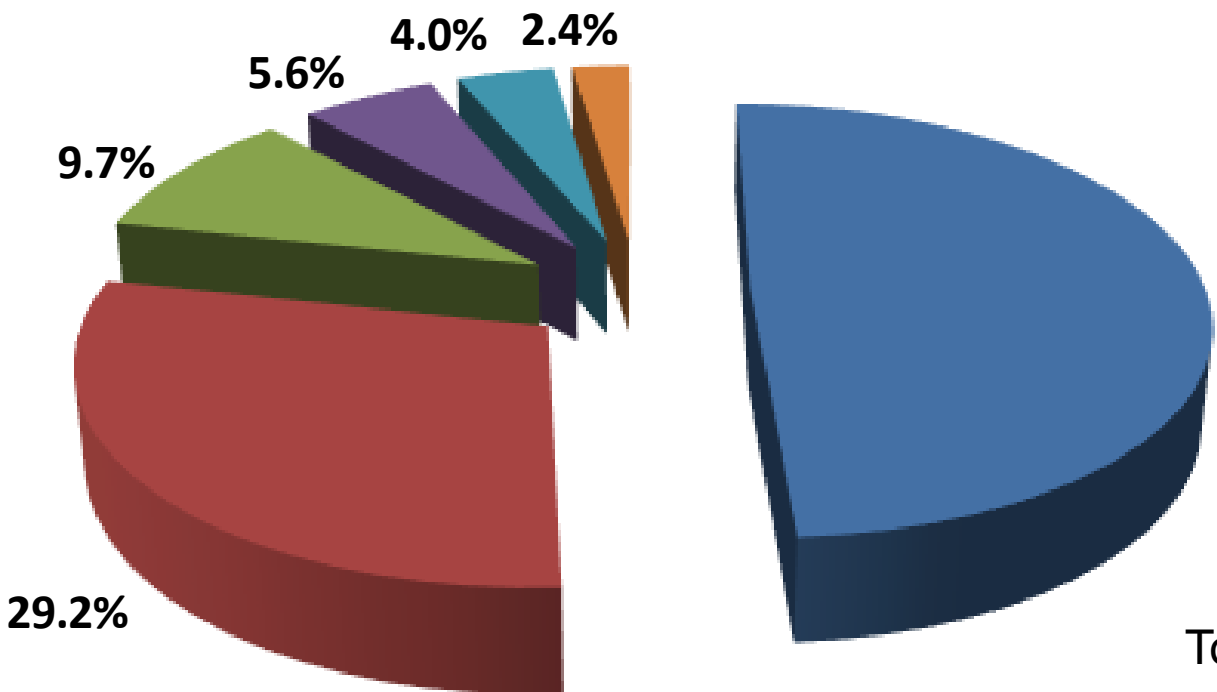


# Marine Premiums 2017

by region



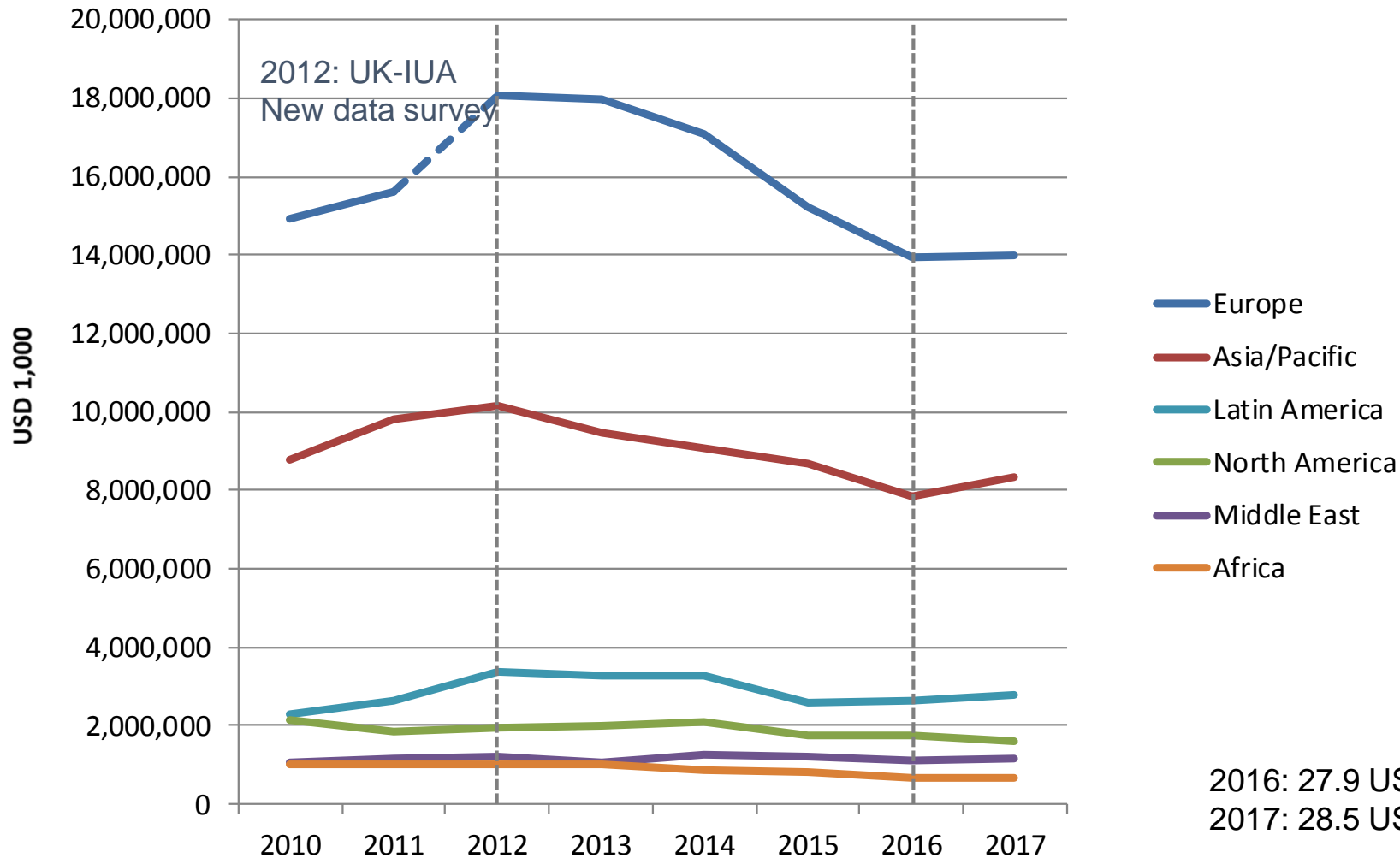
- Europe
- Asia/Pacific
- Latin America
- North America
- Middle East
- Africa



Total: 28.5 USD billion

# Marine premiums by region 2010-2017

Data as reported 2018



Premium reductions 2013-16:  
Combination of strong USD and  
market conditions.

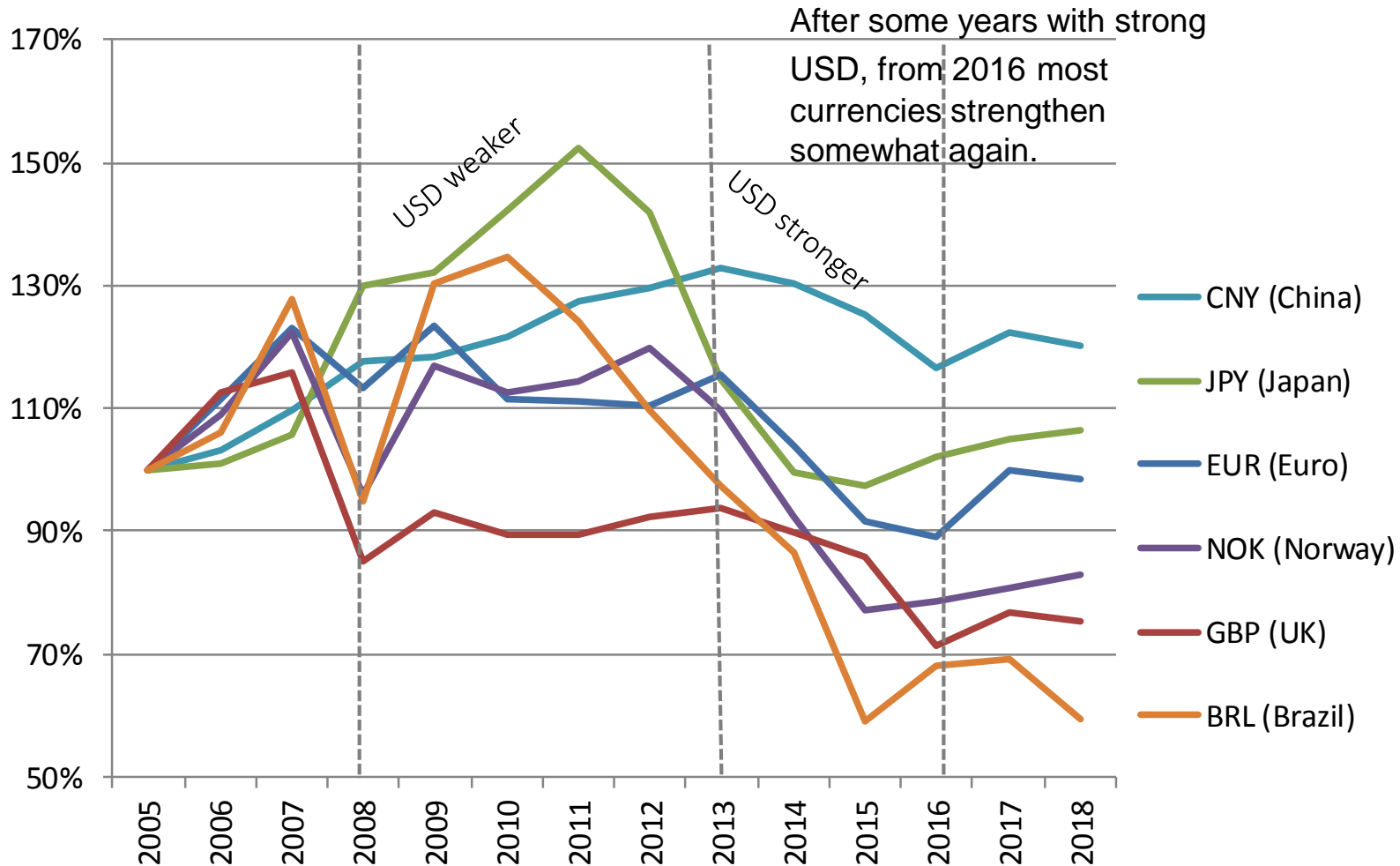
2017 influenced by strenghtening  
of local currencies against USD  
(besides market conditions).

2016: 27.9 USD bill.  
2017: 28.5 USD bill.



# USD Exchange rates 2005-2018

Index 2000=100%, against selected currencies, as of Dec. each year (2018 as of July)



Exchange rates impact USD premium amounts in this report!

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

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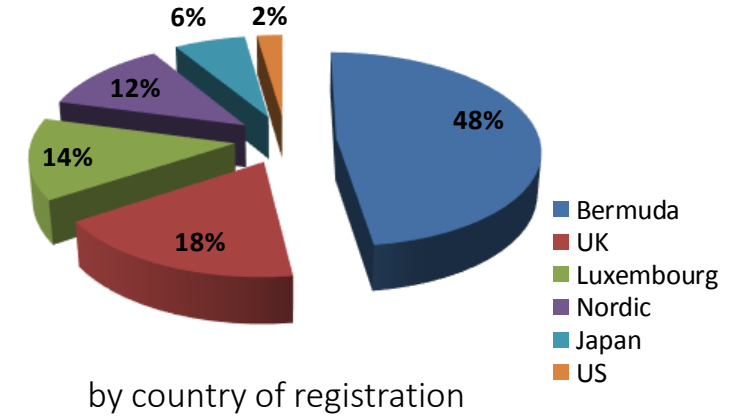
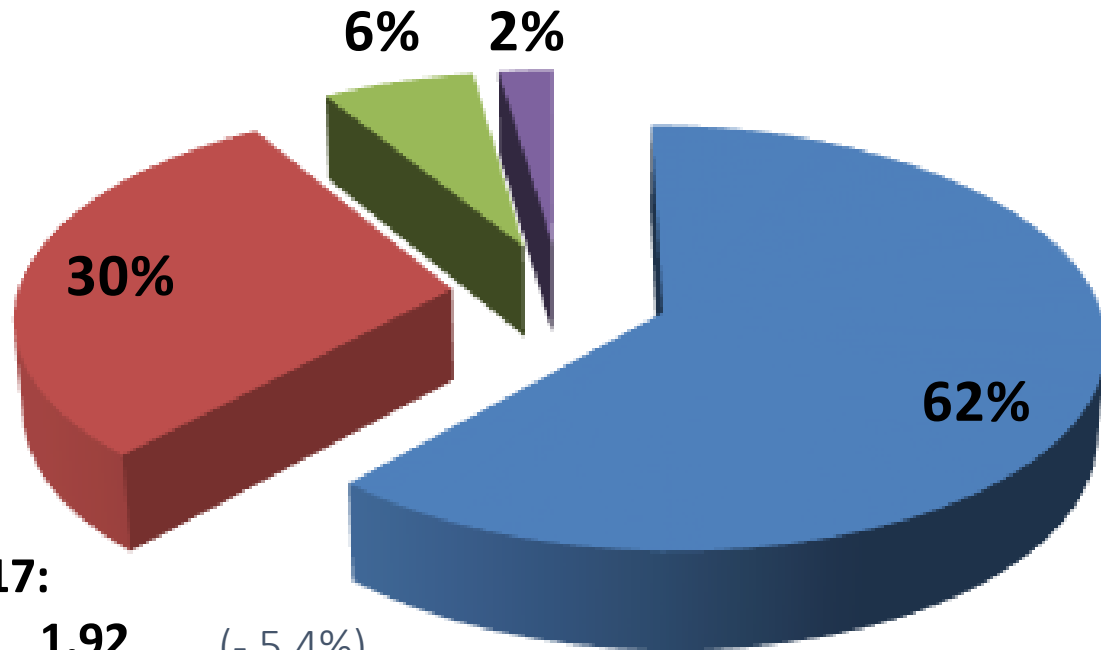
Income / Claims / Loss ratios

# P&I International Group – Income

Gross Calls (premium) 2017 – Operational location



P&I premiums down for 3<sup>rd</sup> year in a row



**Calls 2017:**

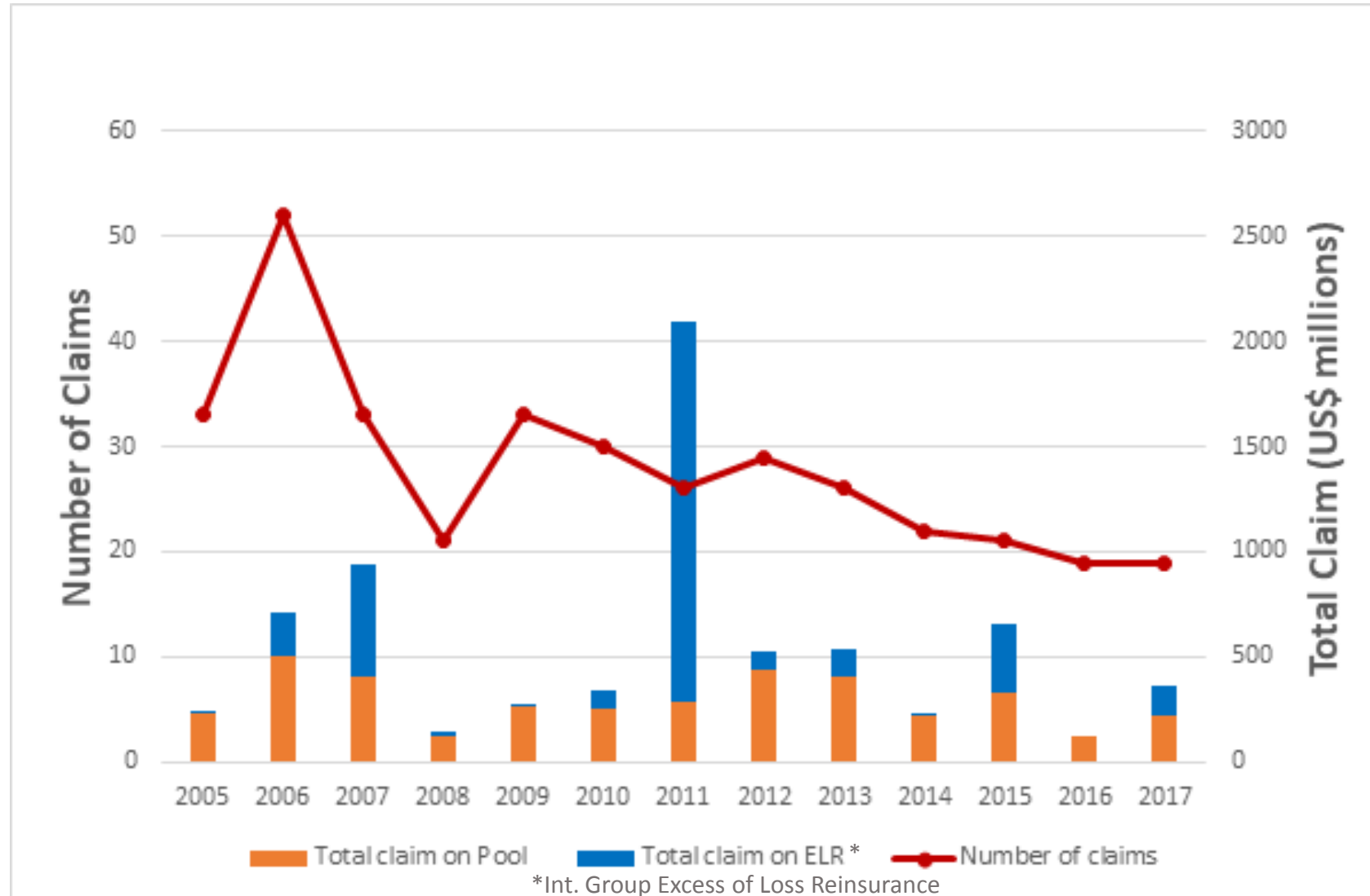
<b>UK:</b>	<b>1.92</b>	(- 5.4%)
<b>Nordic:</b>	<b>0.92</b>	(- 8.3%)
<b>Japan:</b>	<b>0.20</b>	(- 3.6%)
<b>US:</b>	<b>0.07</b>	(- 13.4%)

**Total: 3.11 (USD billion)**    ⚡ All down: - 6.3%

- UK
- Nordic
- Japan
- US

# P&I – Pool claims by policy year

Source: International Group of P&I Clubs



Modest recent impact of pool claims – but P&I is a complex business with high liabilities!

More information at [www.igpandi.org](http://www.igpandi.org)

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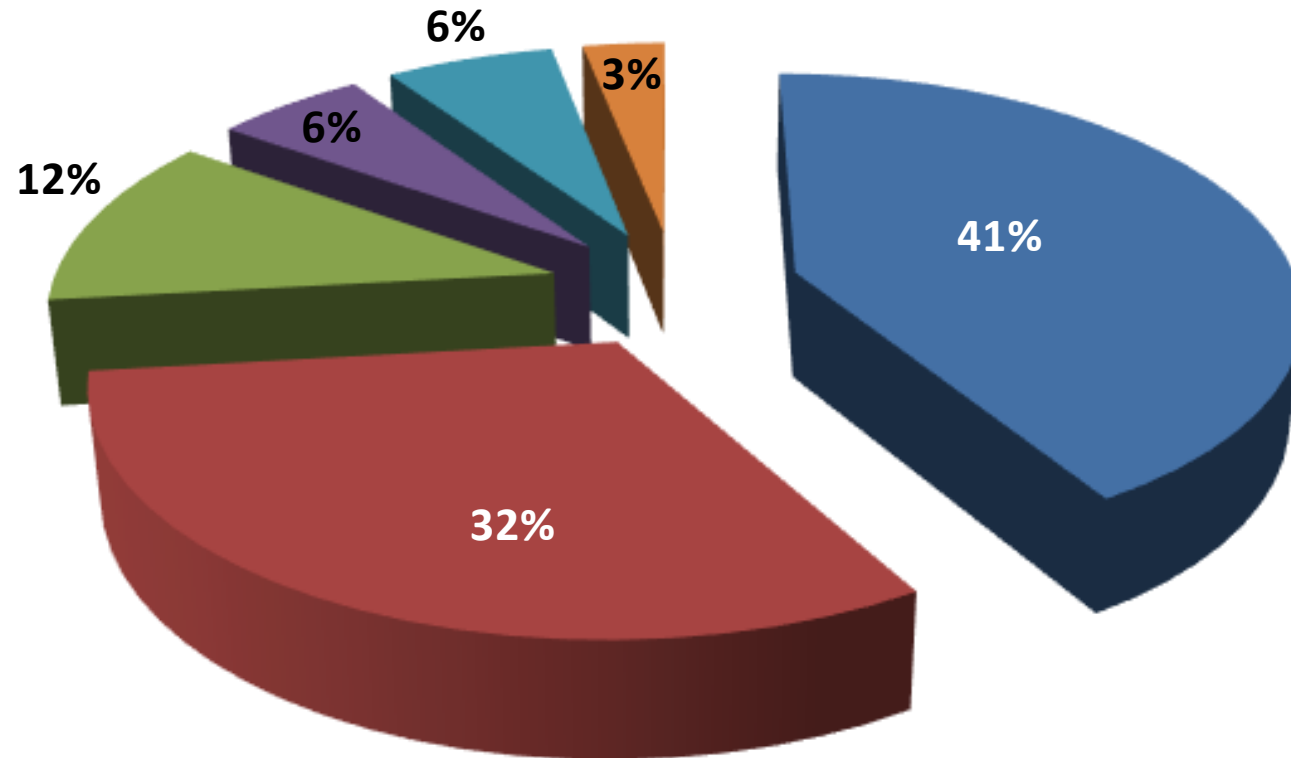
**Offshore energy**

Income / Claims / Loss ratios

# Cargo Premium 2017 – by region



Total estimate: 16.1 USD billion / Change 2016 to 2017: +6%  
Exchange rate effects strongest on cargo premium.

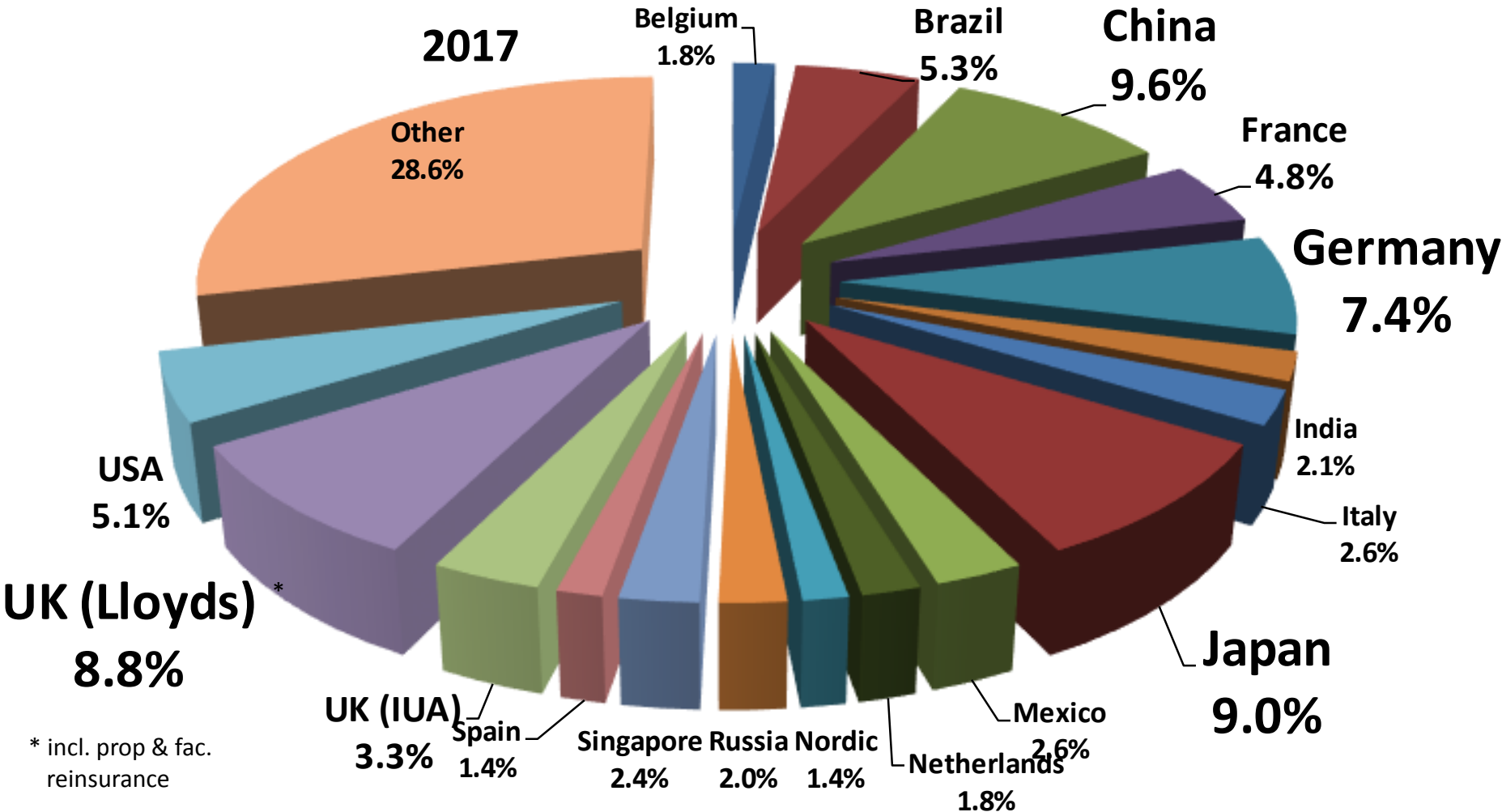


- Europe
- Asia/Pacific
- Latin America
- North America
- Middle East
- Africa

# Cargo Premium 2017 – by markets

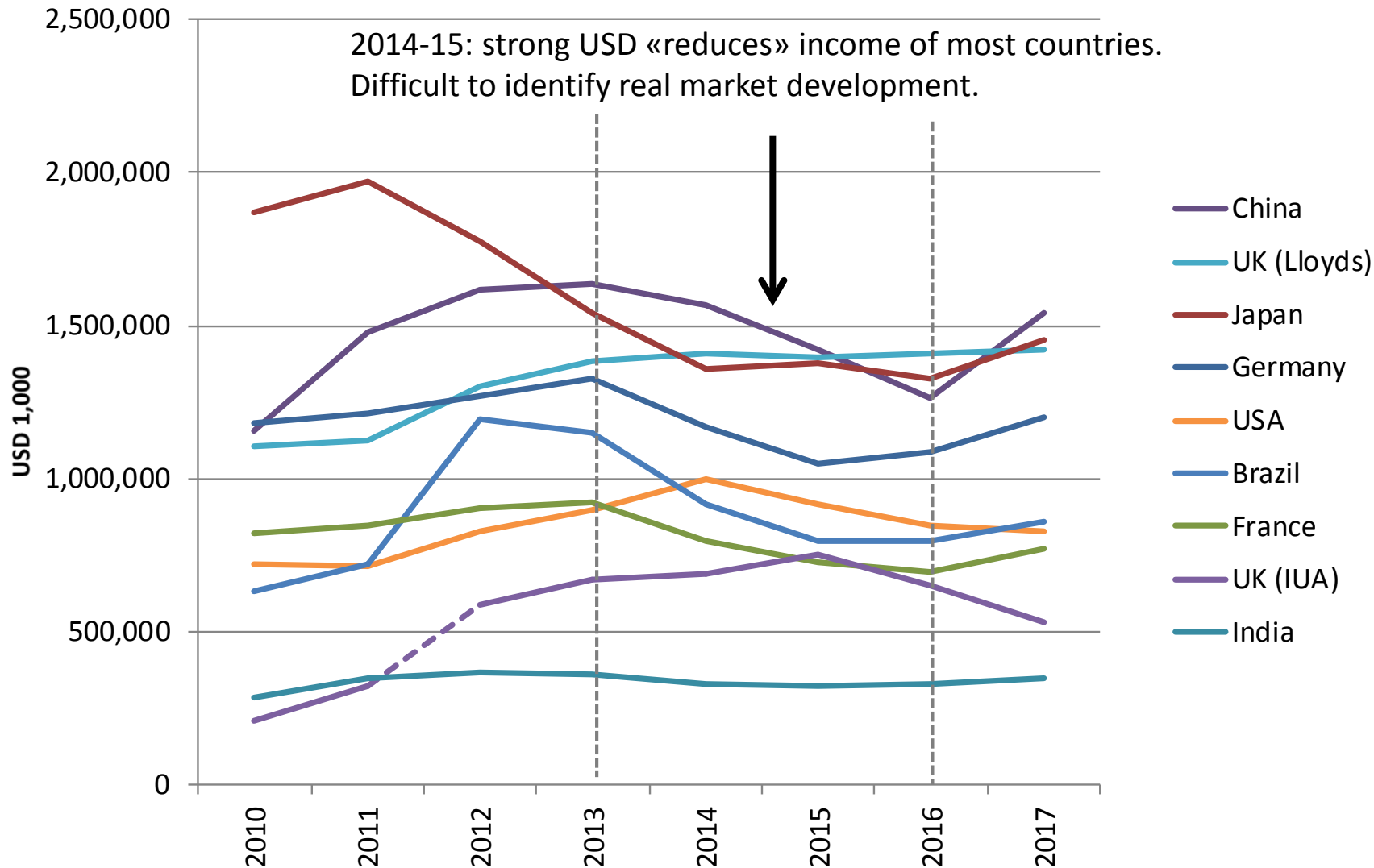


Total estimate: 16.1 USD billion



# Cargo Premium 2010-2017

Selected markets



2016/2017 various influences: Upswing in trade, strenghtening of currencies against USD & other market conditions.



# Cargo Premium versus World Trade Values & Exports



Index of evolution, 2005=100%



Evolution of world trade values and cargo premium seem to correspond.

Premiums also reflect exchange rate influences.

Extended risk covers and the increasing risk of event losses (risk accumulation) need also to be taken into account!

# Cargo - Loss ratios



Foto: Astrid Seltmann

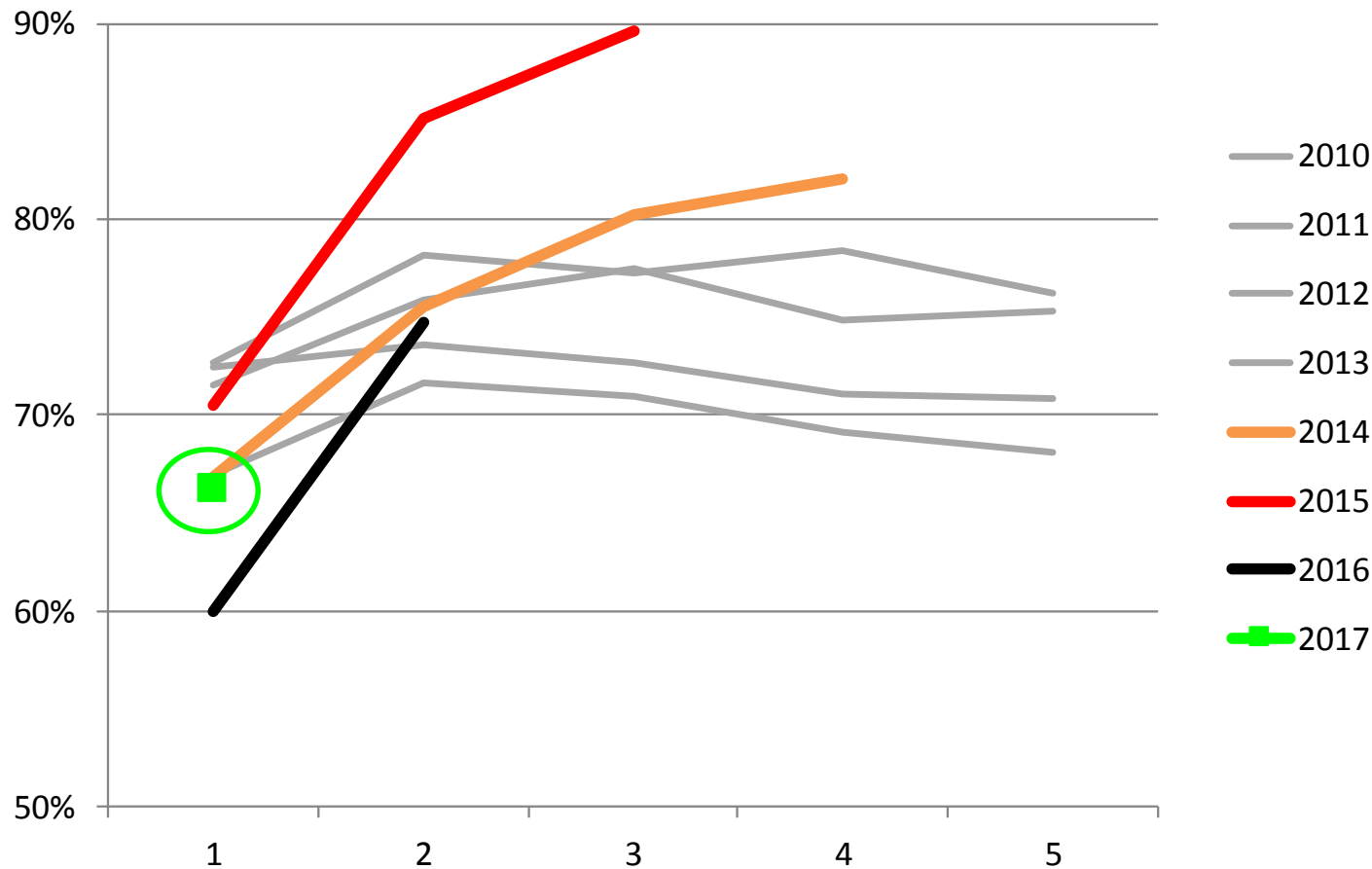


1<sup>st</sup> class quality  
dried cod –  
before shipping  
to destinations.

# Gross\* loss ratios

## Cargo Europe (& partly US) \*\*

Underwriting years 2010 to 2017, as reported at 1, 2, 3, 4, 5 years  
Gross premiums, paid+outstanding claims



2014, 2015, 2016: Each year extraordinary increase in loss ratios. Change in typical pattern. The new normal?

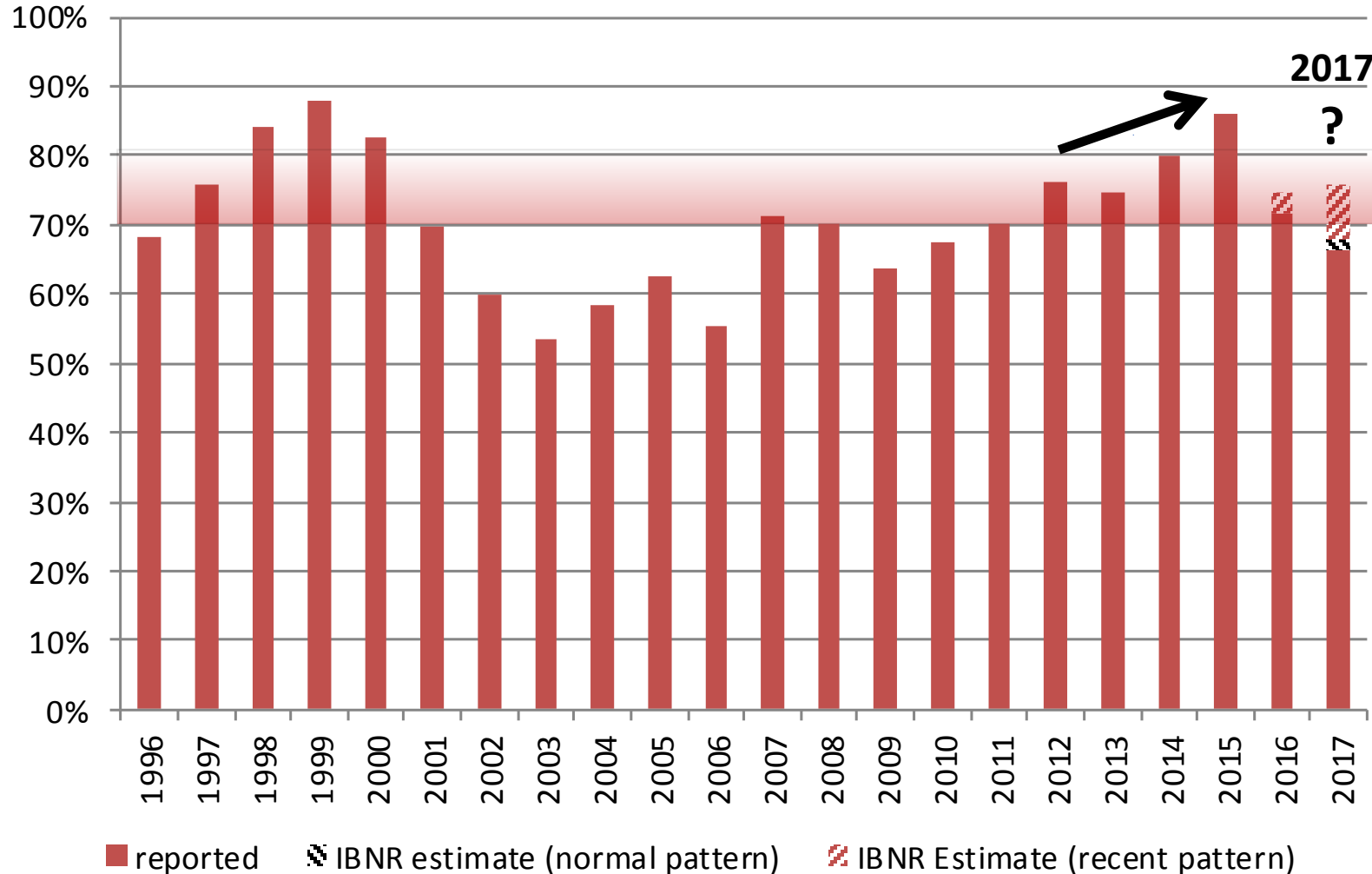
2017 starts at 2014 level. With a 'normal' pattern (grey lines), 2017 would end around 70%. With recent pattern, 2017 ends around 80%.

\*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, USA

# Ultimate Gross\* loss ratios Cargo Europe (& partly US)\*\*

Underwriting years 1996 to 2017, gross premiums, paid+outstanding claims



Recent years strong impact by outlier & Nat-cat event losses:

- 2015: Tianjin port explosions
- 2016: Hanjin, Amos-6 satellite
- 2017: Hurricanes / Nat Cat
- 2018: Mærsk Honam

Affect more than one uw year.

Increasing expenses a concern.

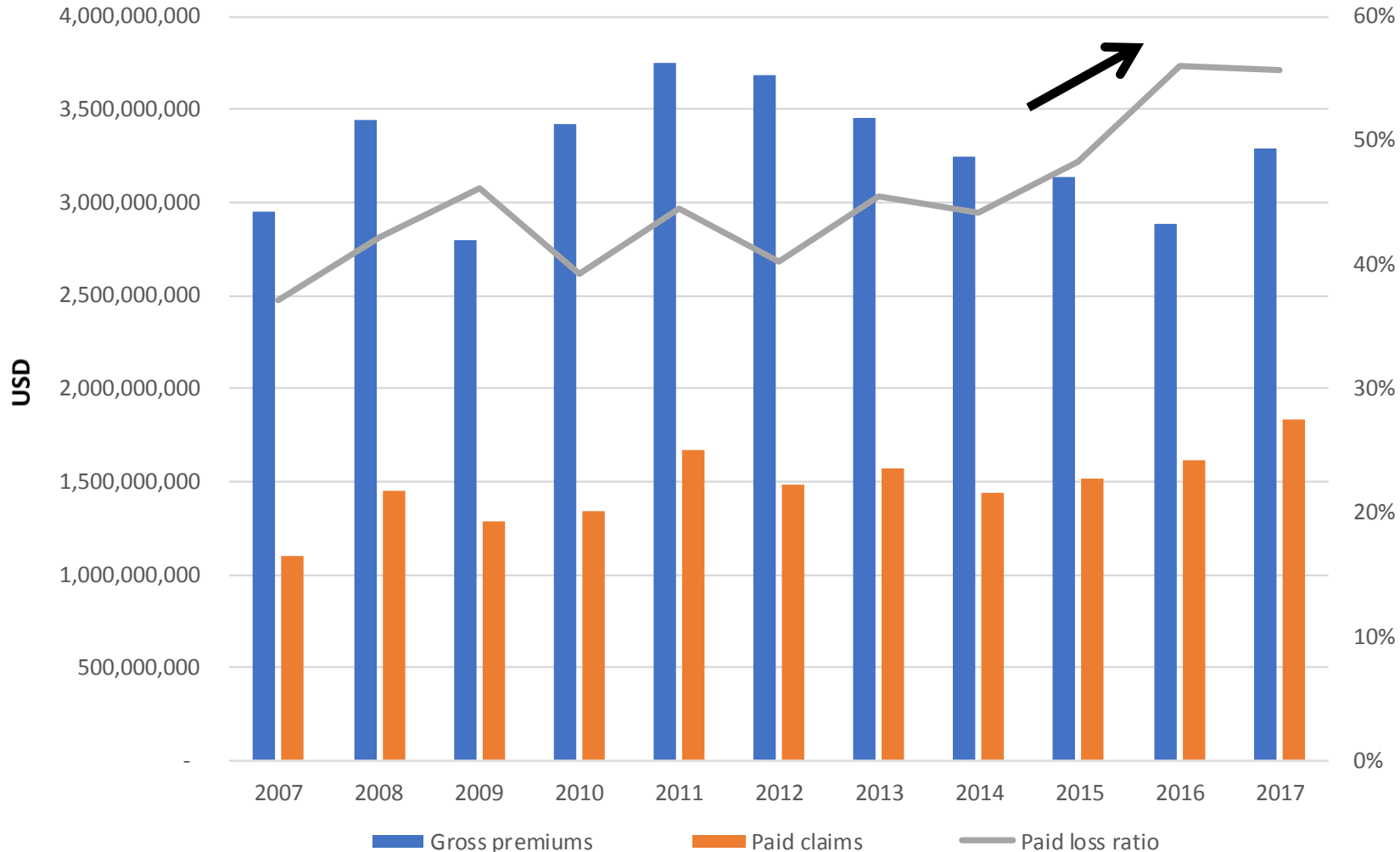
\* Technical break even: gross loss ratio does not exceed 100% minus the expense ratio (acquisition cost, capital cost, management expenses)

\*\*Data included from: Belgium, France, Germany, Netherlands, Italy, Spain (until 2007), UK, USA

# Gross loss ratios accounting year Cargo Asia\*



Gross premiums, paid claims only



Stable 40-45% until 2014.

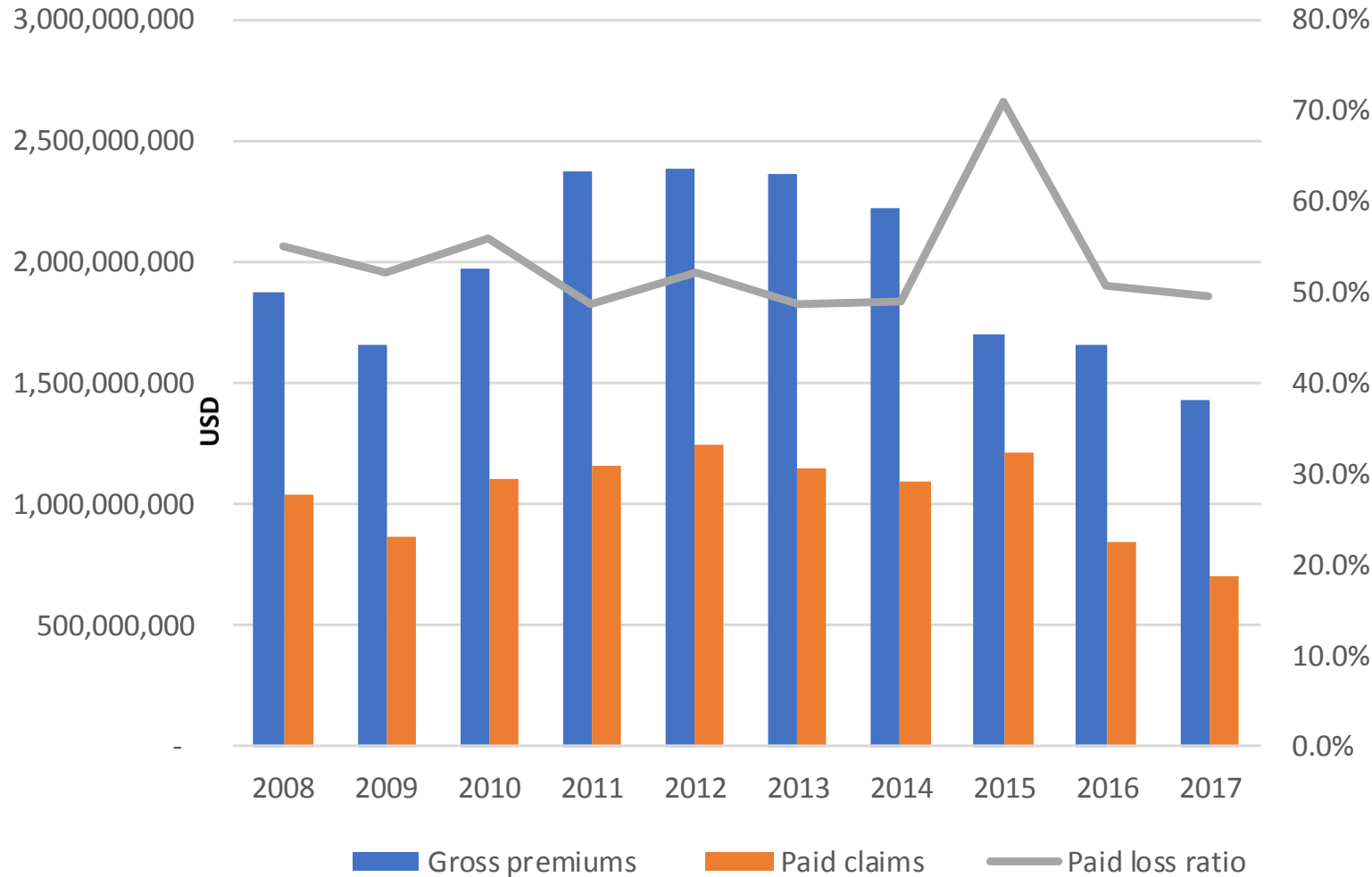
Increase from 2015.

Probable impact by Tianjin port explosions, Nat Cat & deterioration in premium volume.

\* China, Japan, Hong Kong

# Gross loss ratios accounting year Cargo Latin America\*

Gross premiums, paid claims only



Stable around average 50-55%.

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

\*Figures included from: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, Guatemala, Honduras, Mexico, Panama, Paraguay, Peru, Venezuela.



# Cargo Key points



- 2014-2016 results all severely deteriorated. Strong impact from large event losses (Nat Cat and outlier losses), but also attritional losses on the rise.
- 2017 underwriting year also expected to deteriorate more than average (Hurricanes, Mexico earthquake, Bangladesh flooding & other Nat Cat).
- **Risk of large event losses (Nat Cat and man-made) substantially increased. Increasing value accumulation on single sites/vessels .**
- Covered risks represent increasingly stock exposure rather than transit exposure.
- Trade growth accelerating, but change in economical and political frame conditions makes prognoses uncertain.
- USD premium influenced by combination of market conditions and exchange rates.
- Market trends and results can differ substantially by region/unit.

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**Offshore energy**

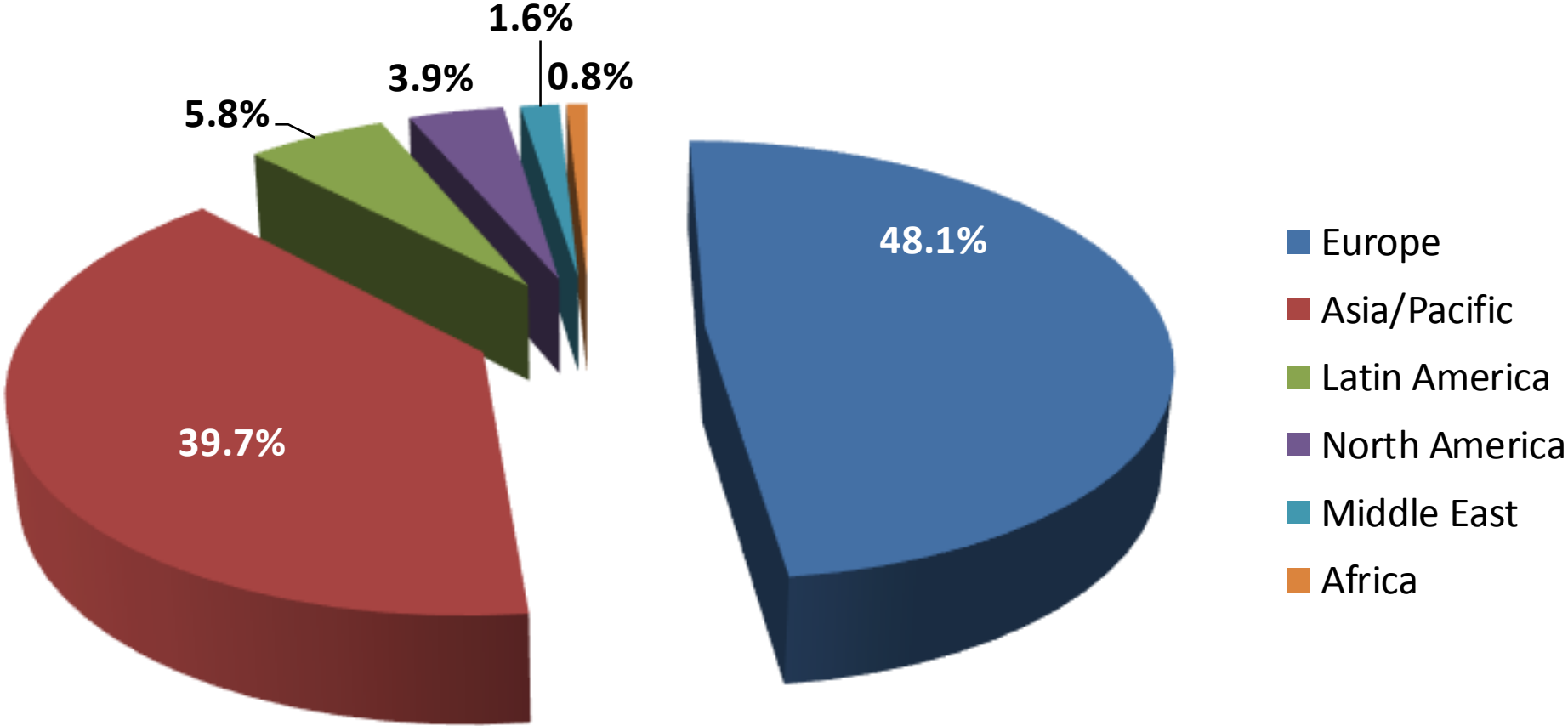
Income / Claims / Loss ratios



# Hull Premium 2017 – by region



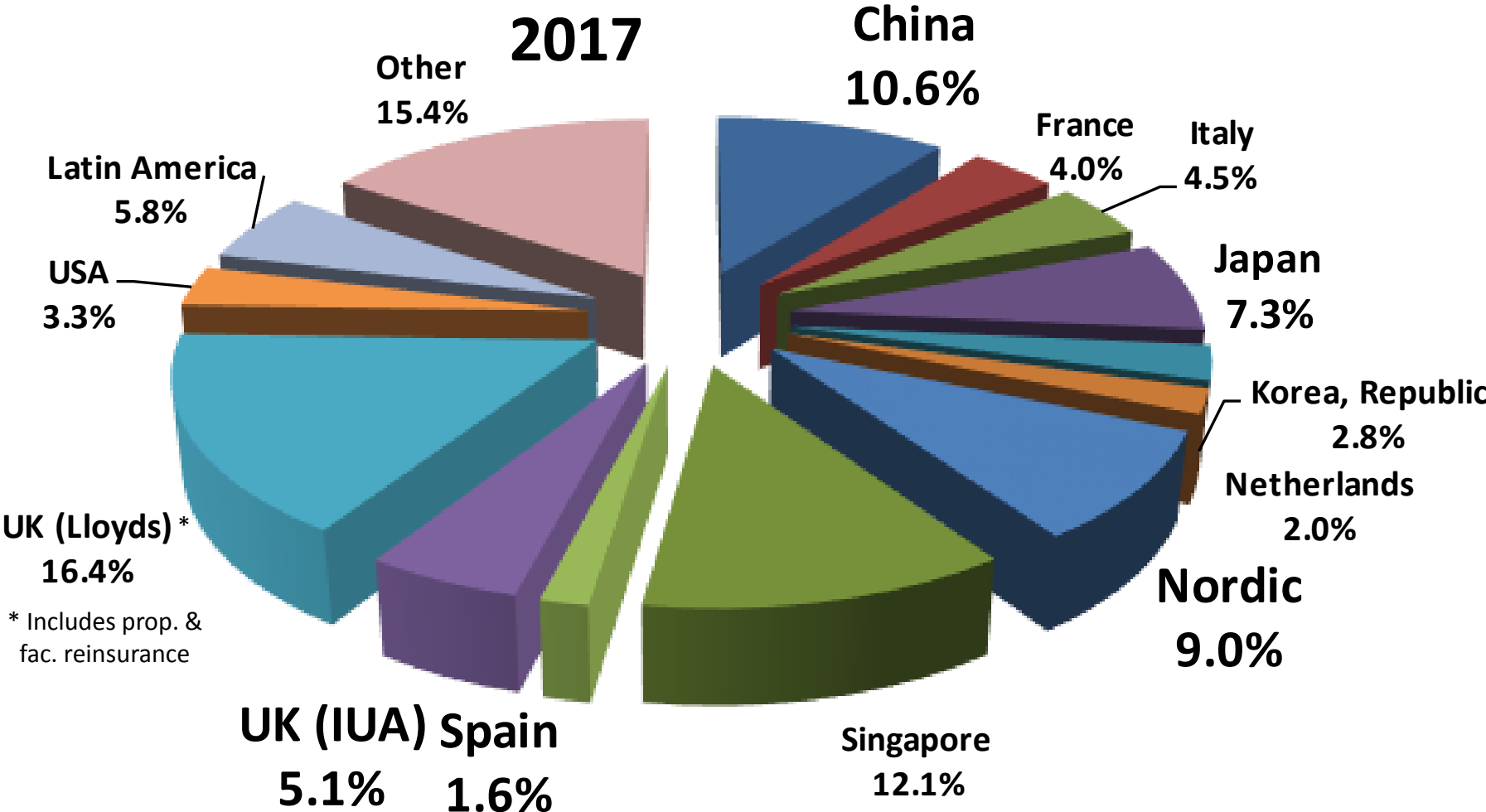
Total estimate: 6.9 USD billion / Change 2016 to 2017: -2.3%



# Hull Premium 2017 – by markets

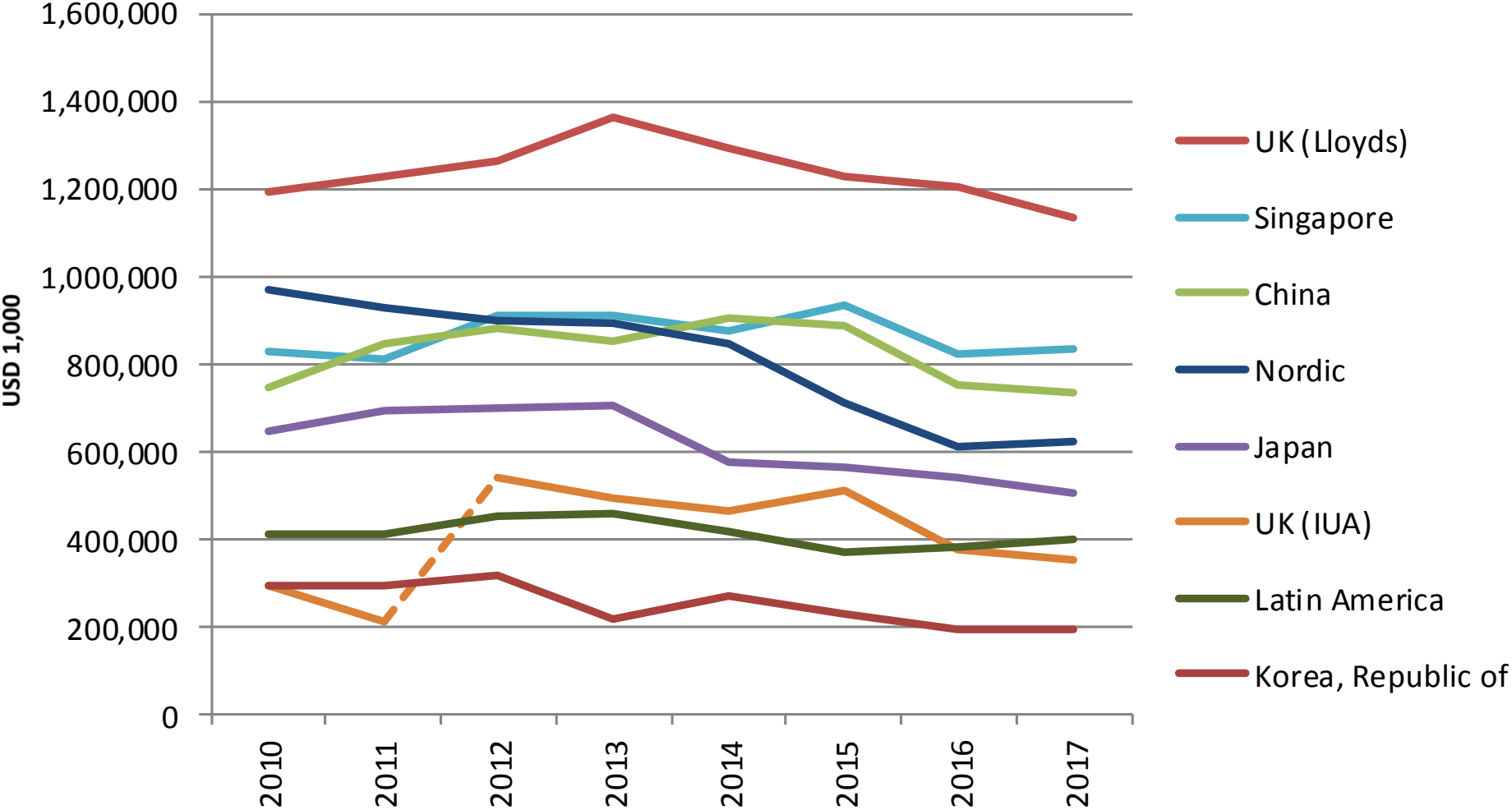


Total estimate 2017: USD 6.9 billion



# Hull Premium 2010-2017

Selected markets



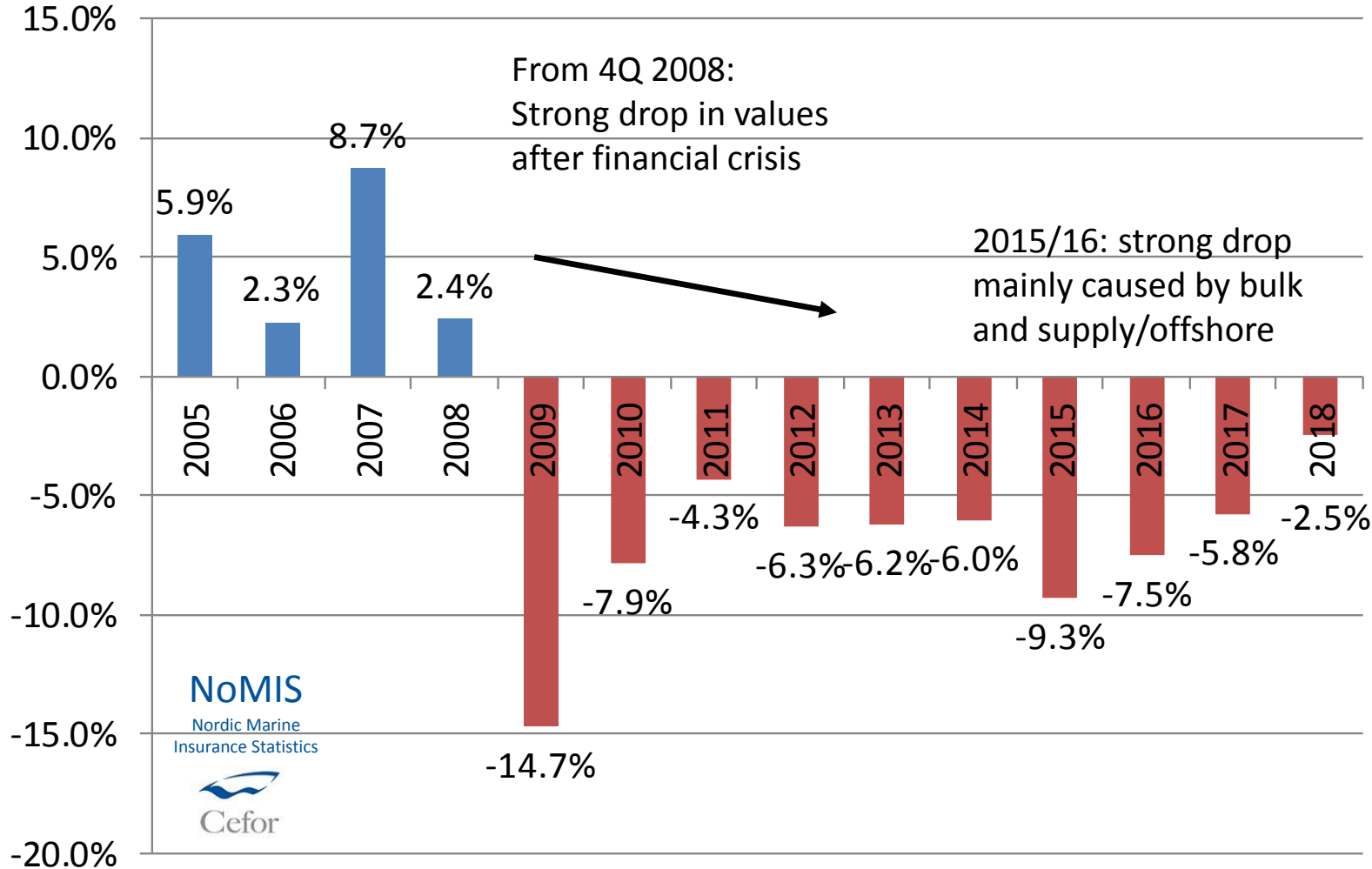
# Hull – Portfolio trends



Foto: Astrid Seltmann

# Change in values on renewal

= vessel value on renewal / vessel value previous uw year (same vessels in both years)



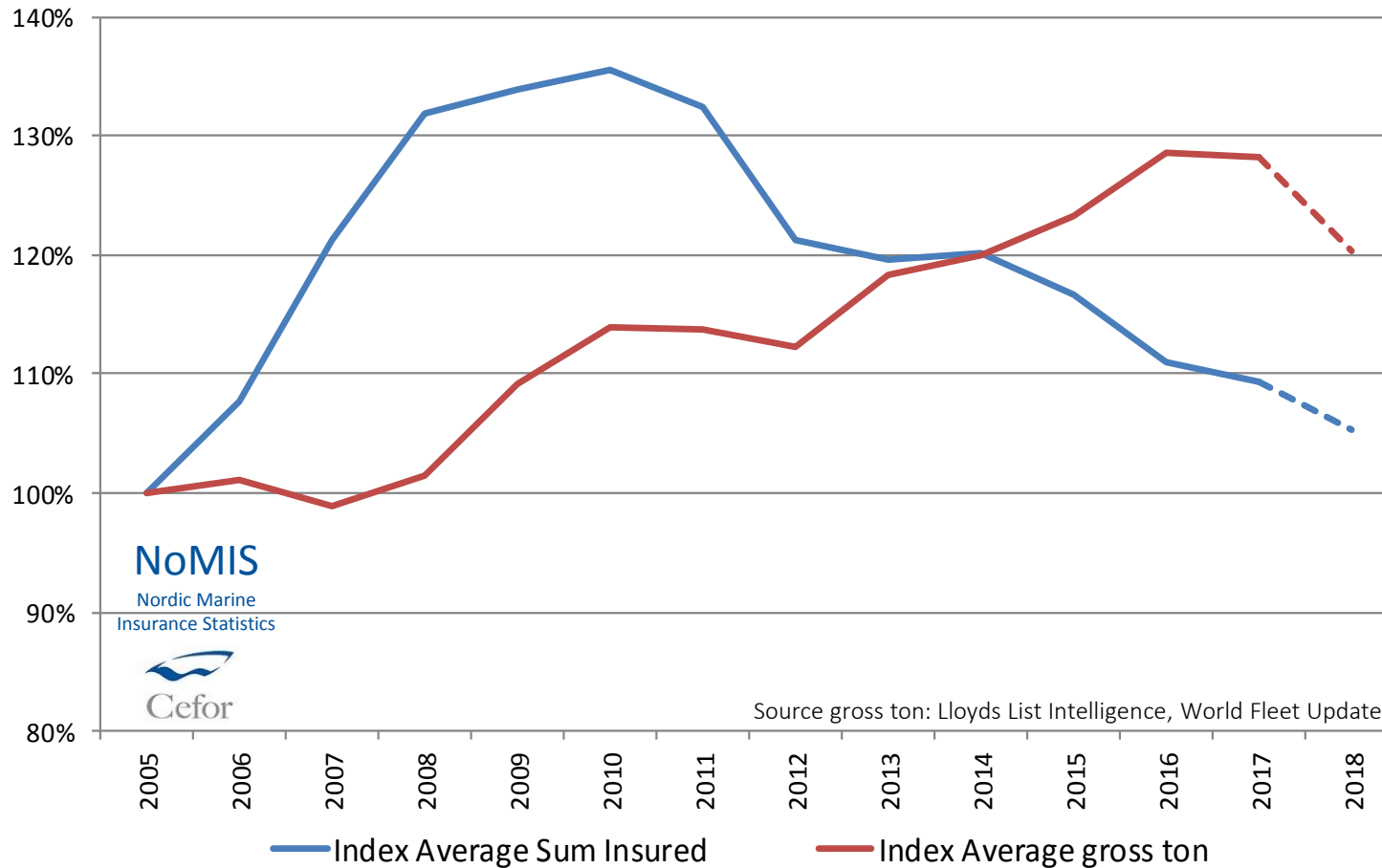
2017 bulk market recovering.

2018 some recovery in supply/offshore (increased activity with rising oil price).

Some value reduction expected due to aging of vessels (same vessels compared for two executive years).

# Average gross ton & av. vessel value

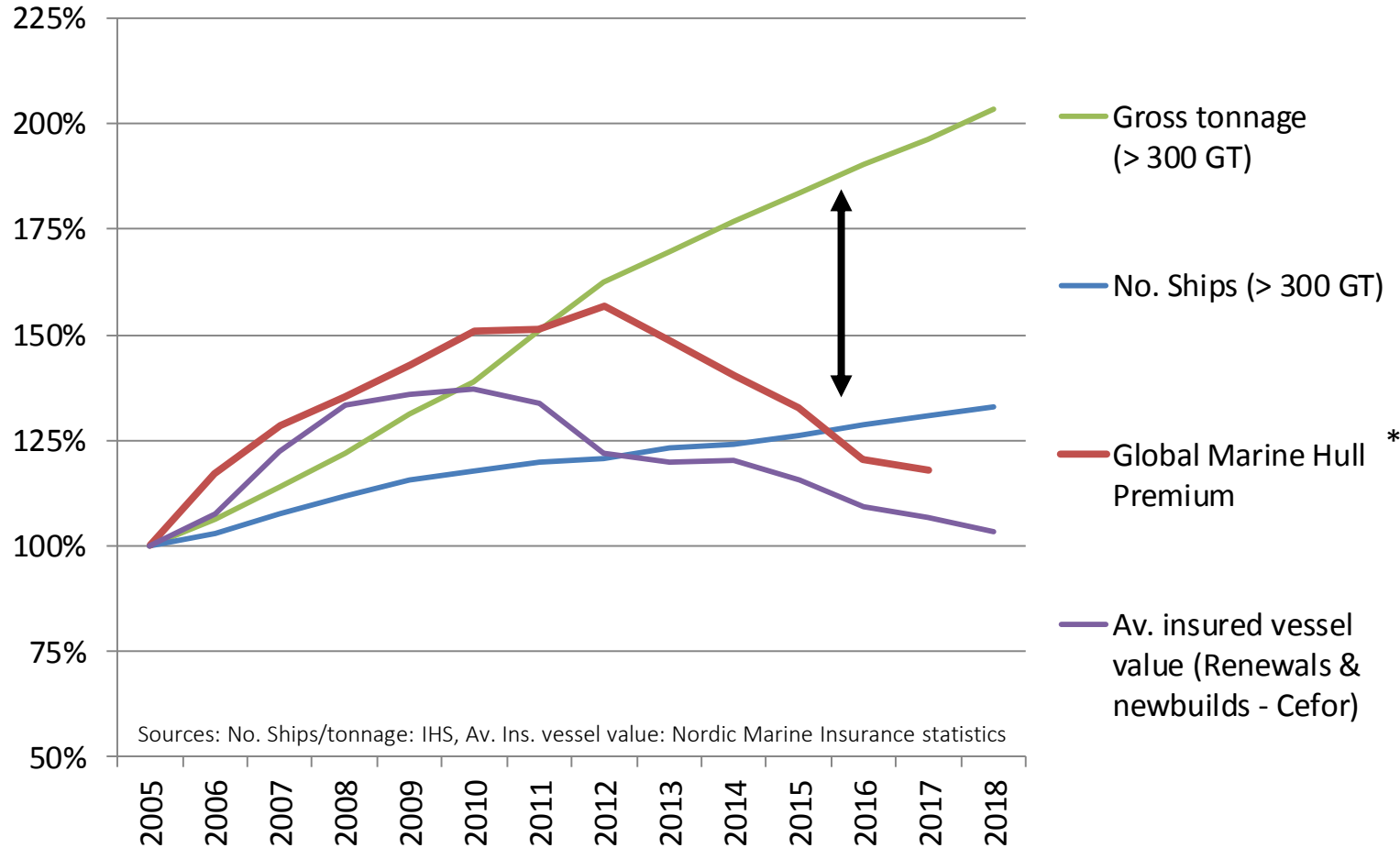
Index, 2005 = 100%



After the financial crisis, average vessel sizes and average insured values showed an adverse development.

# Hull Premium / World Fleet

Index of evolution, 2005 = 100%



Sources: No. Ships/tonnage: IHS, Av. Ins. vessel value: Nordic Marine Insurance statistics

World fleet continues to grow, especially in tonnage.

Hull premium deteriorates in line with ship values.

Increasing mismatch between fleet/vessel growth and income.

\* Premium adjusted backwards for missing historical data.



# Hull – Claims trends



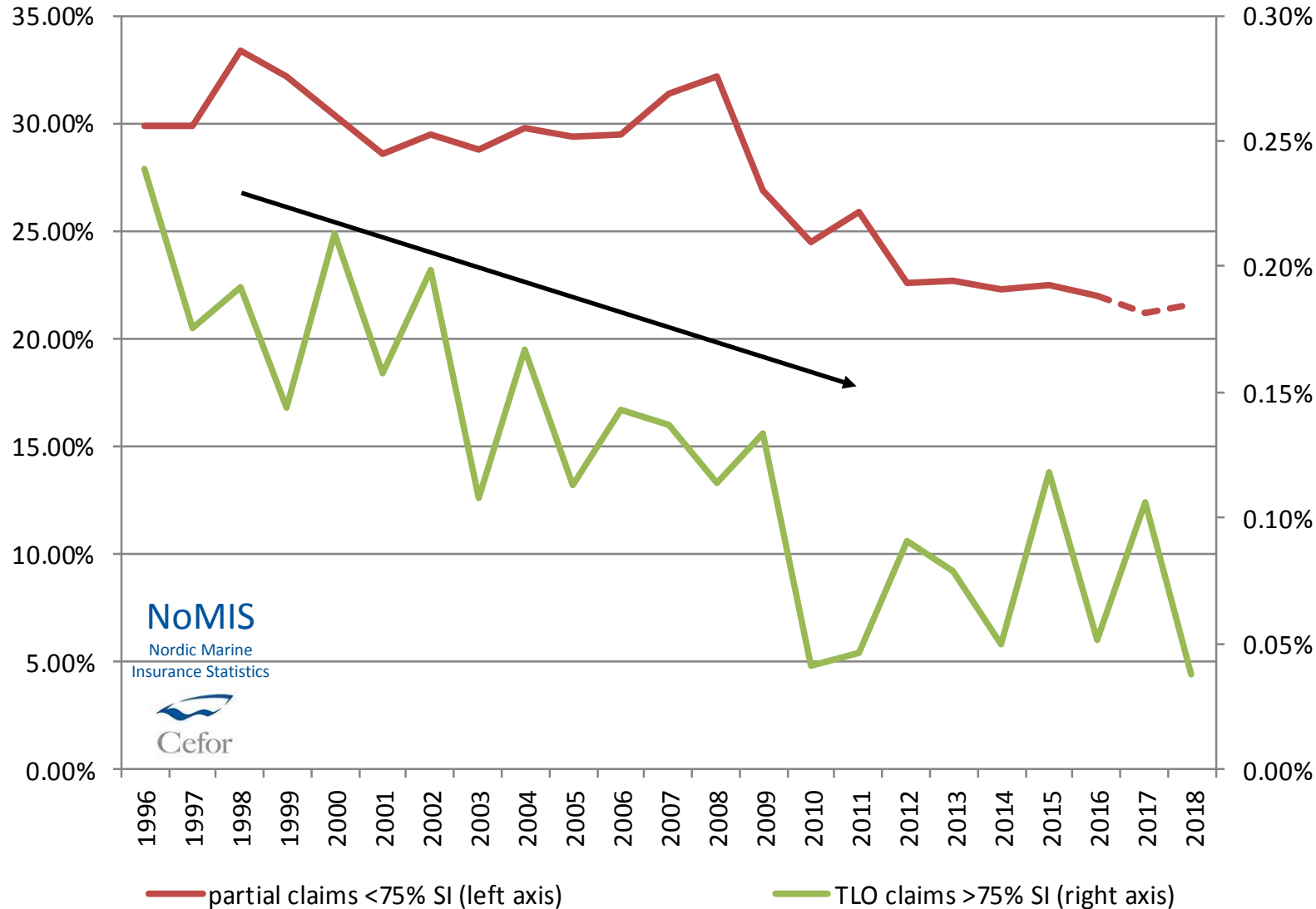
Data on slides 33 to 36:  
Cefor **Nordic Marine Insurance Statistics**

Figures reflect:

- Hull & Machinery insurance.
- 25% to 50% of world fleet.  
(highest for largest & youngest fleet).
- Vessels with IMO-numbers
- Ca. 3,500 claims per year  
(ca. 600 > 250,000 USD per year)
- 100% of each vessel/claim
- Do not include yachts.



# Claims frequency



## All claims frequency

Long-term downward trend, stable in recent years.

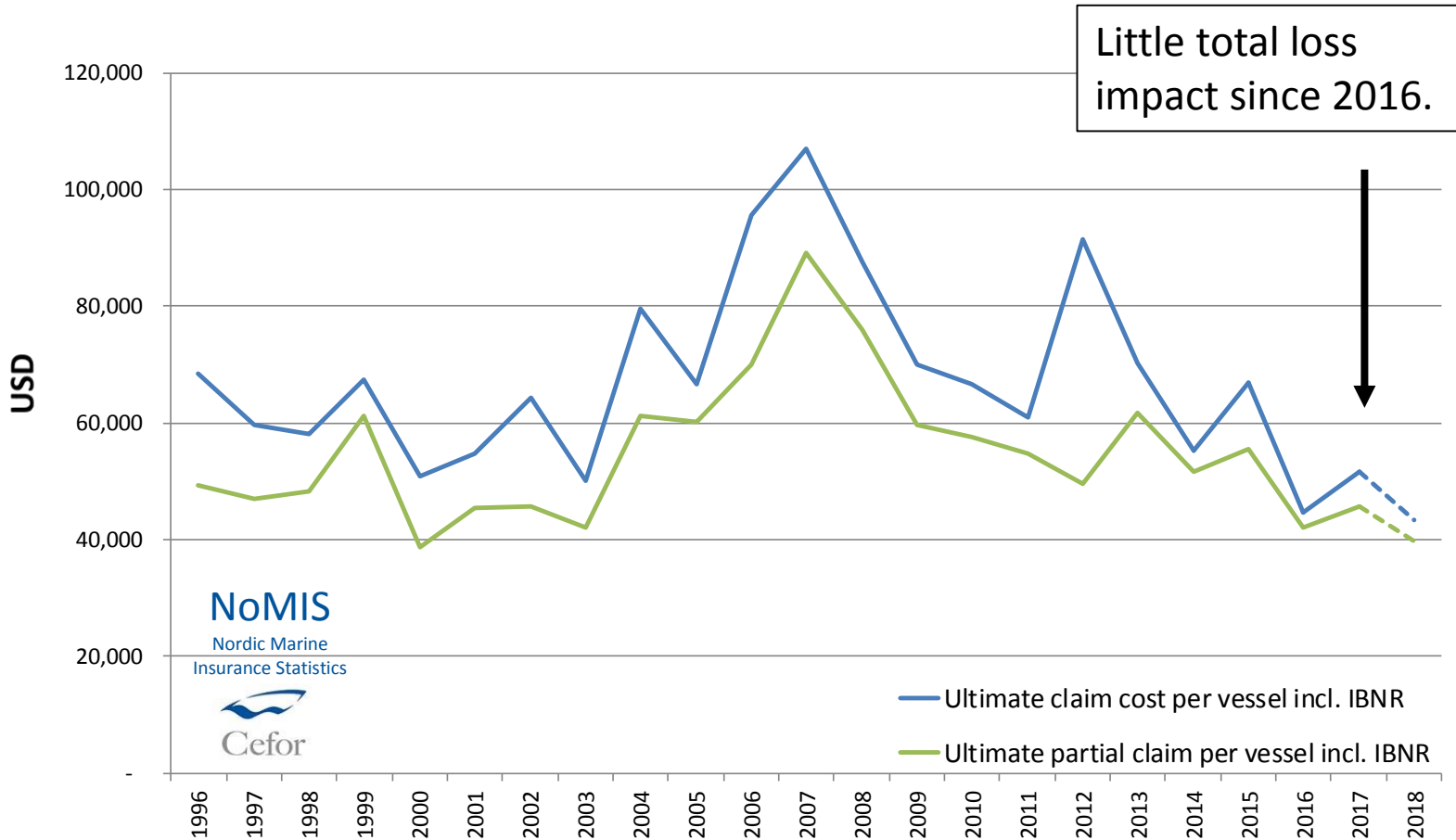
## Total losses

Long-term positive trend.  
Recent fluctuation 0.05% - 0.1%.

Reduced vessel values increase the probability of constructive total losses.

# Claim cost per vessel

Total and partial claims, by accident year, in USD

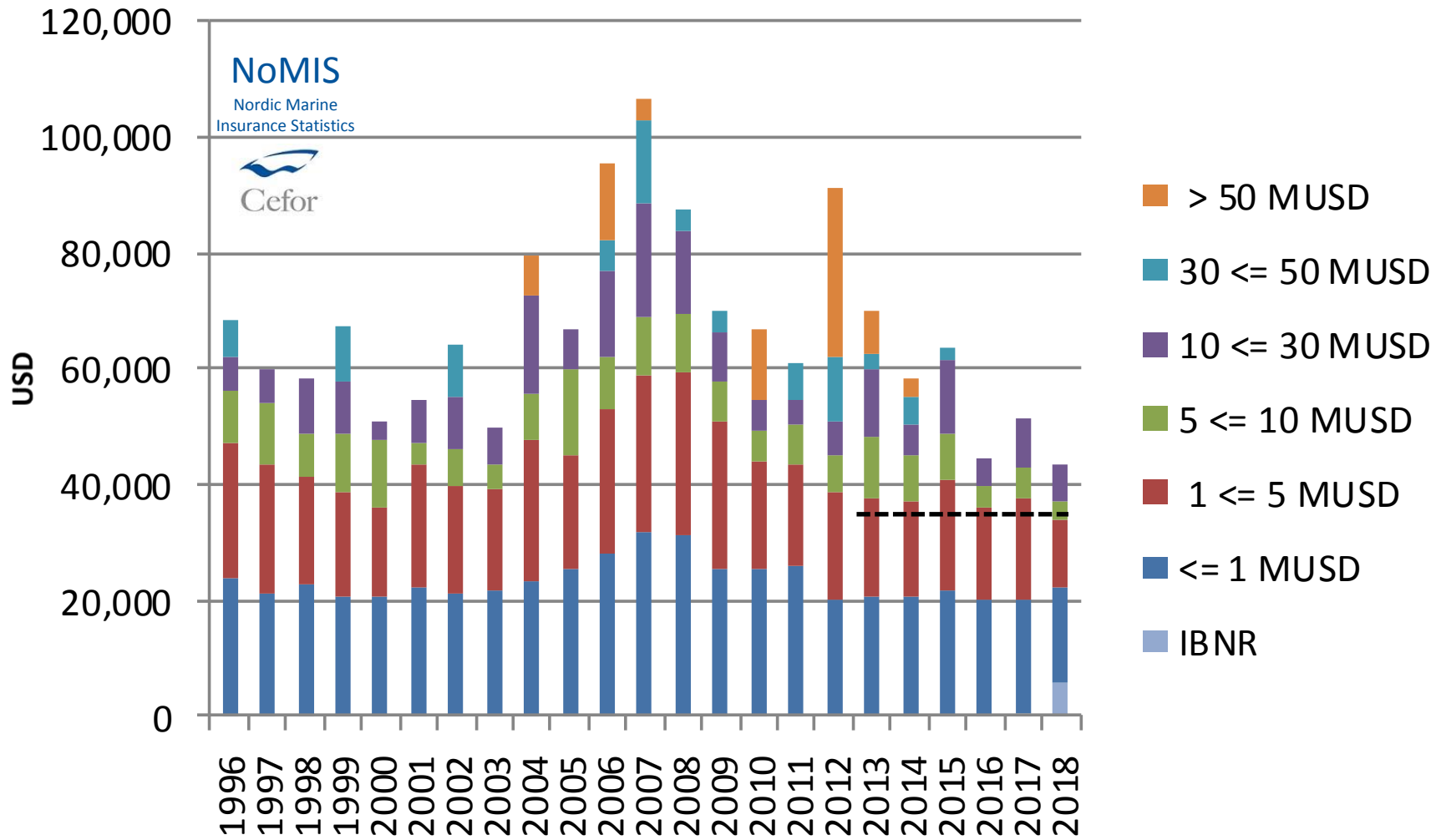


Reduced total loss impact in recent years.

Partial claim cost per vessel stable at moderate level.

# Claim cost per vessel

in bands of claim cost, by accident year, in USD



## Major losses

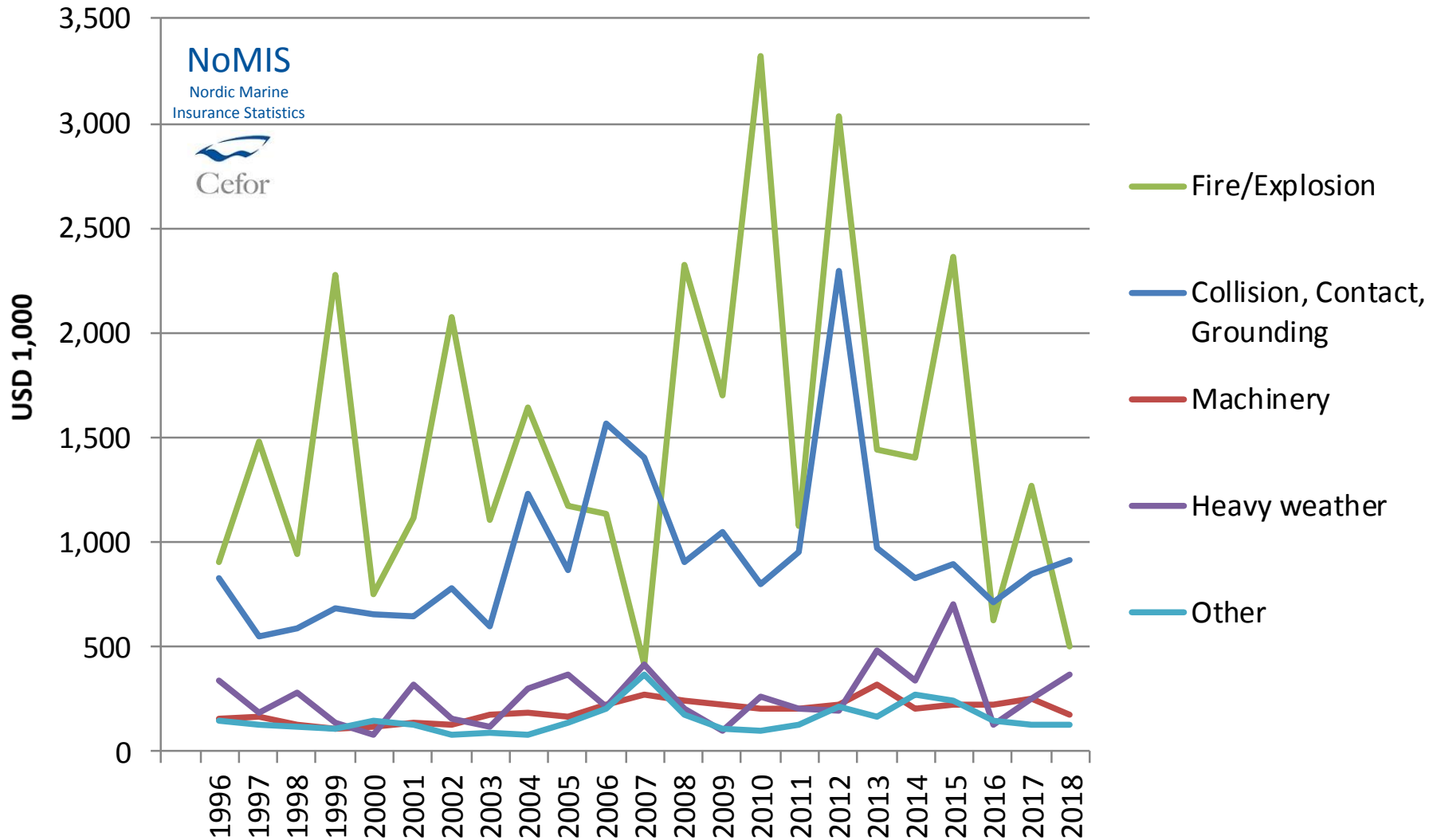
Low impact since 2016, but since 2004 increased volatility from (non-)occurrence of costly losses.

The most costly 1% of all claims account for minimum 30% of the total claims cost in any year!

The **risk** of major losses with unprecedented cost remains (increasing vessel sizes, risk accumulation, new risk types & trading areas).

# Average individual claim cost by type

= Total claim cost per year / Number of claims



Volatility in claims cost strongly driven by (non-)occurrence of costly fire/explosion & navigational-related claims.

# Hull – Loss ratios

?

?

How many fish (& chips) do I need to survive?

?

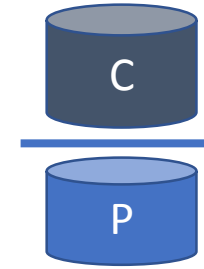
?

?



# A simple equation - Theory

**Loss ratio** = Claims cost (C) / Premium (P)

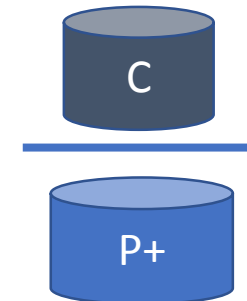


Risk premium = expected claims cost (for partial and major losses).

Premium (P+) = Risk premium (expected claims cost)  
+ Loading for expenses

(acquisition costs, capital cost, management expenses)

+ Profit margin (ideally not negative).



# A simple equation – Reality check

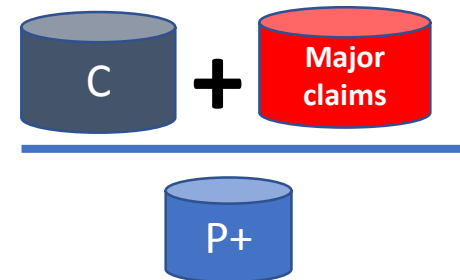
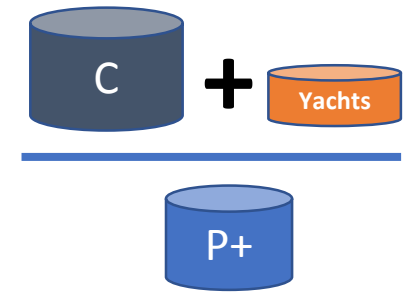


Current situation:

- Less premium (for same or increased risk).
- Moderate claims impact (other than yachts).
- Little major claims impact.
- 2017 hurricane yacht claims.

What happens when major claims return? (they will!)

What do you expect?

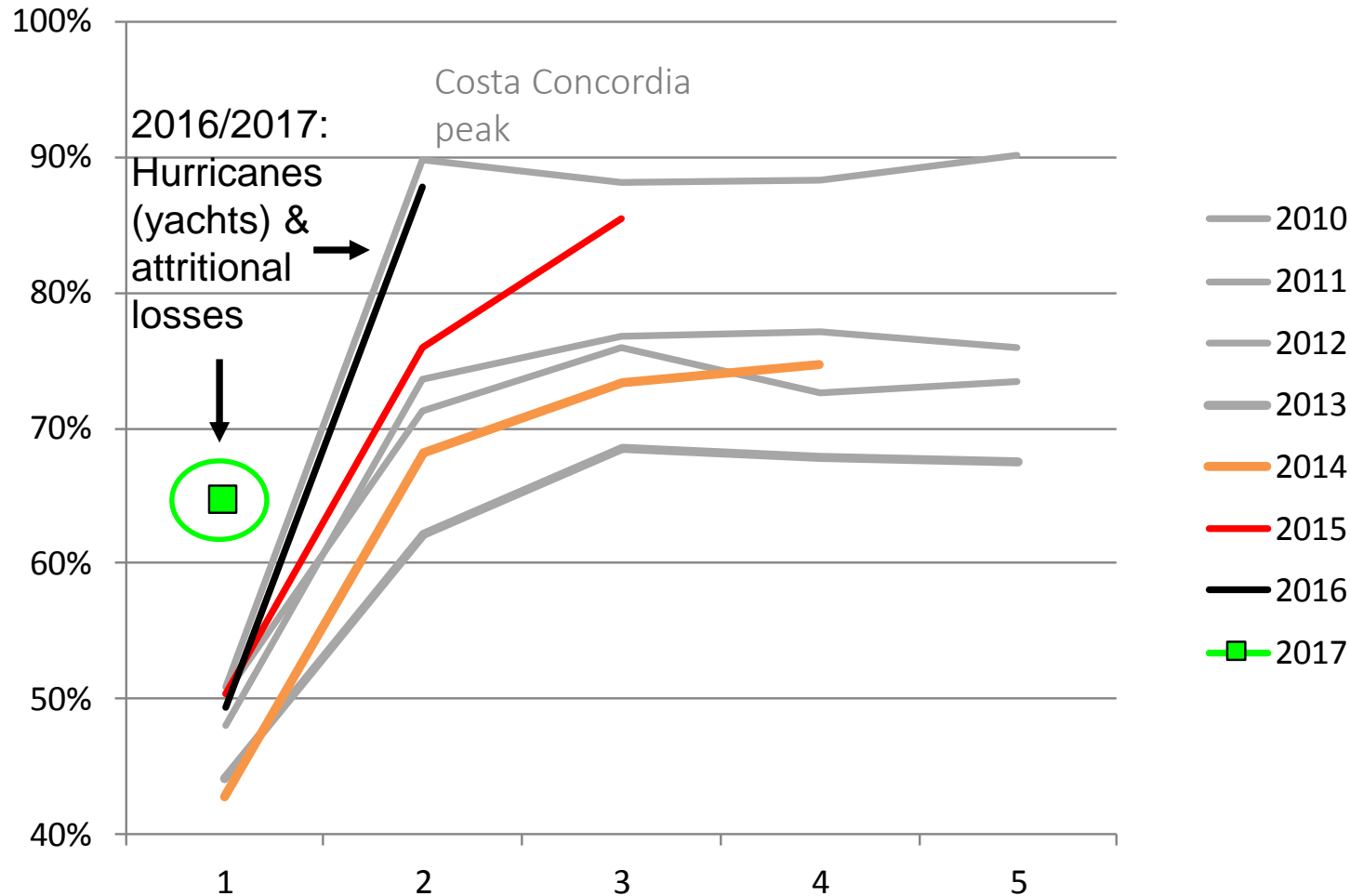




# Gross\* loss ratios Hull Europe\*\* (& partly US)



Underwriting years 2010 to 2017, as reported at 1, 2, 3, 4, 5 years, gross premiums, paid+outstanding claims



Trend towards more severe loss ratio development. (Steeper increase/change in pattern).

2017: Extreme 1<sup>st</sup> year loss ratio compared to previous years.

2017 Hurricane impact (yachts). Ocean hull: Little major loss impact, loss ratios driven up by 'normal' repairs (attritional losses).

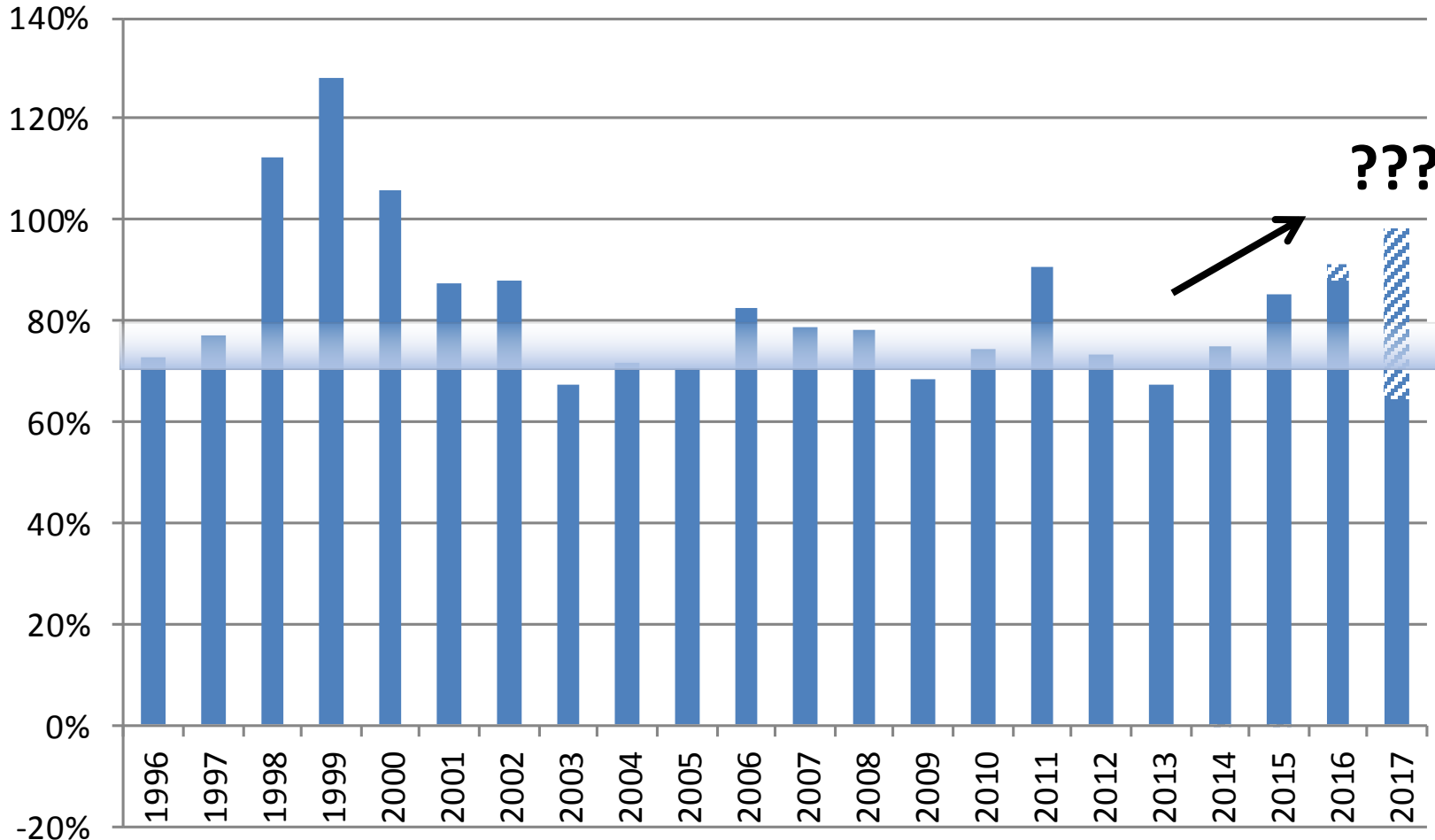
\* Technical break even: gross loss ratio does not exceed 100% minus the expense ratio (acquisition cost, capital cost, management expenses)

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



# Ultimate Gross\* loss ratios Hull Europe\*\* (& some US)

Underwriting years 1996 to 2017, gross premiums, paid+outstanding claims



■ as reported per December 2017 (paid+outstanding)    ▨ IBNR estimate (normal pattern)

Substantial deterioration of loss ratios since 2013.

Overcapacity, dropping vessel values and reduced activity influenced income negatively.

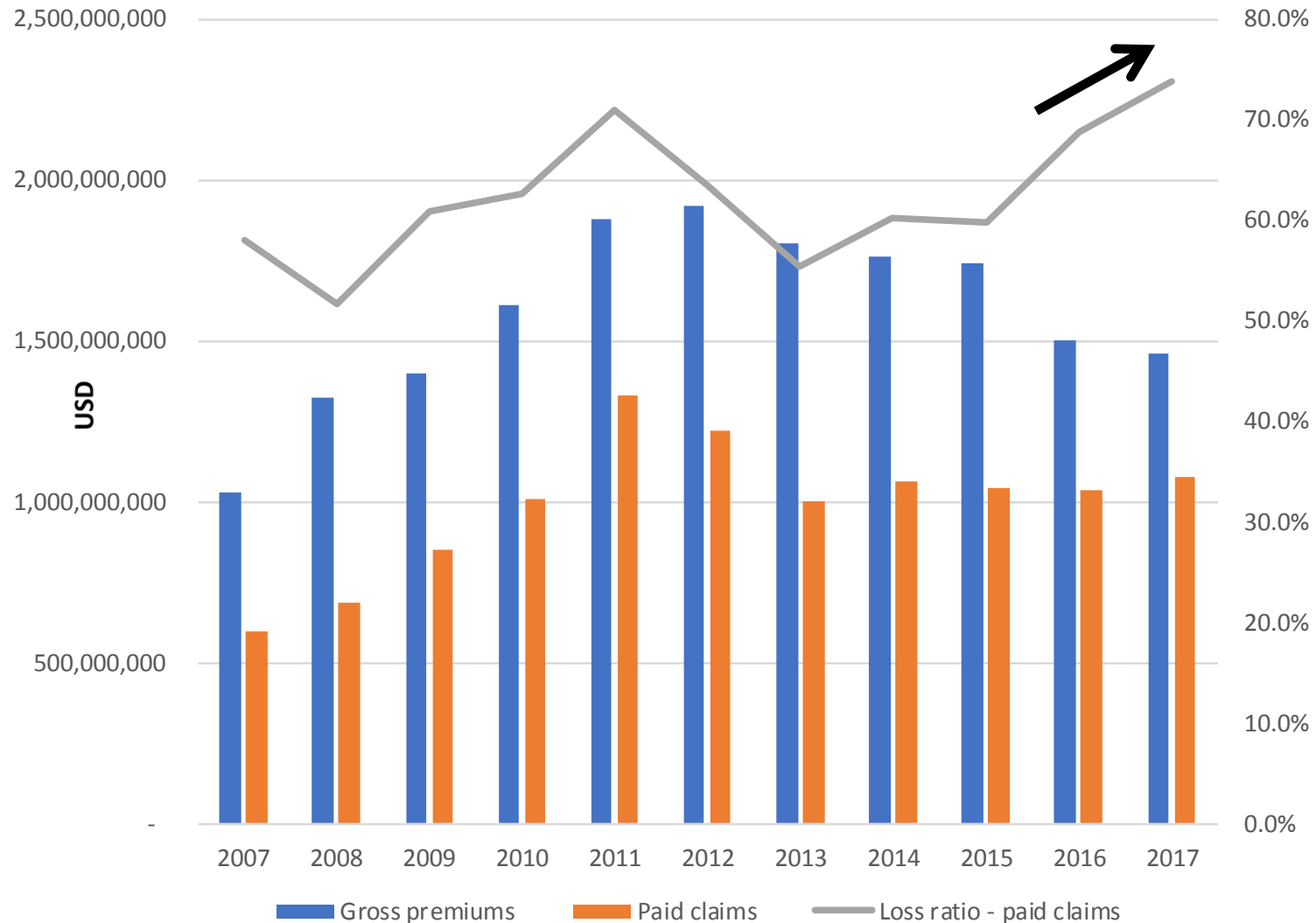
Yachts impact 2017 results, but:  
**The income does not seem to cater for expected 'normal' repair cost any more.**

\*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), Spain (until 2007), UK, USA

# Gross loss ratios accounting year Hull Asia\*

Gross premiums, paid claims only



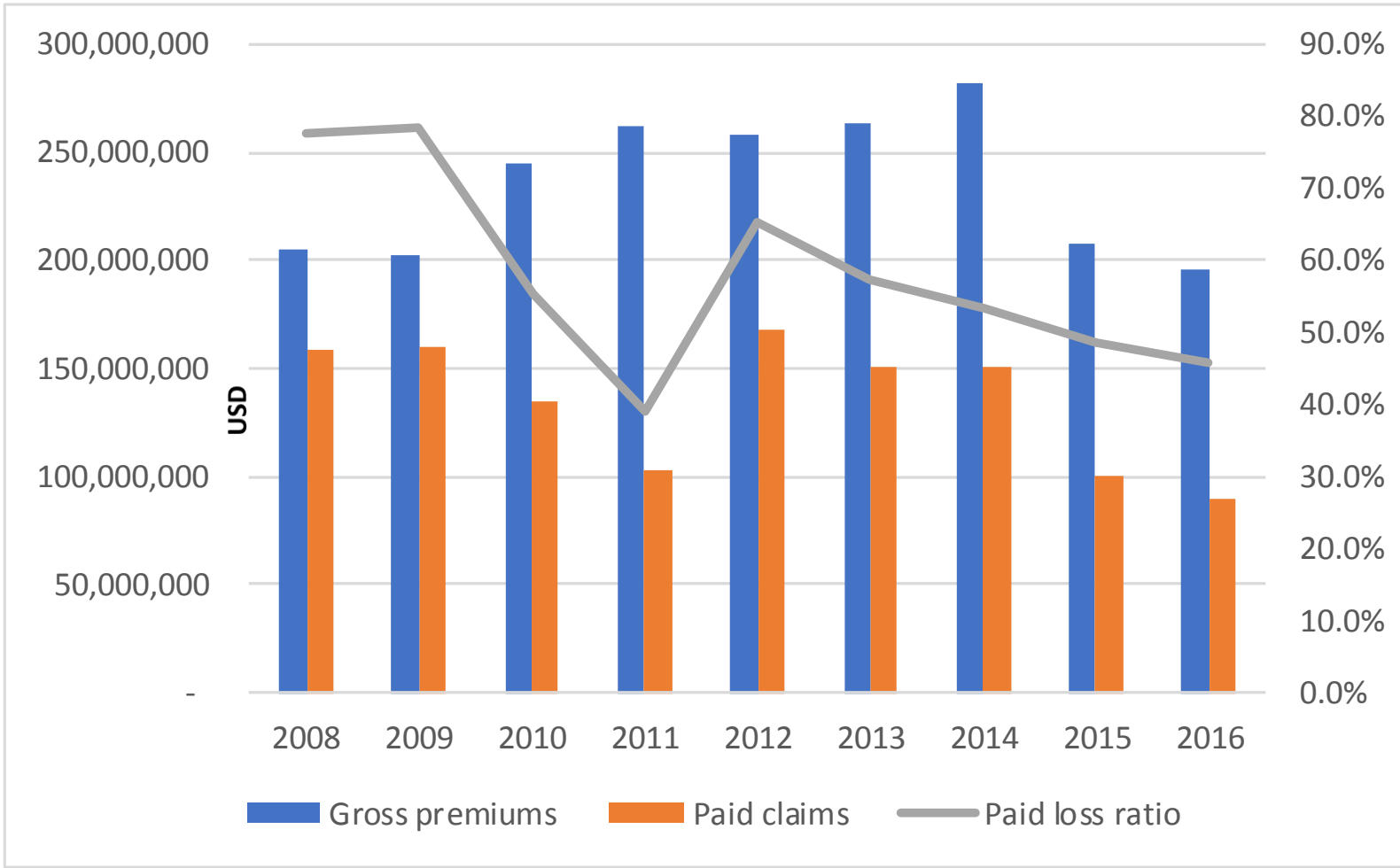
Recent increase in loss ratios.  
**Stable annual claims cost  
 opposed to income reduction.**

Some relation to previous portfolio growth possible (accounting year: claims attaching to uw year paid over several acc.).

\* China, Japan, Hong Kong.

# Gross loss ratios accounting year Hull Latin America\*

Gross premiums, paid claims only



\*Figures included from: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, Guatemala, Honduras, Panama, Paraguay, Peru, Venezuela.

# Hull Key points



## Exposure

- Values and income down, contrary to increasing fleet & vessel size.
- Higher single-risk exposure (with inherent risk of unprecedented major claims).

## Claims (other than yachts)

- Claims frequency and cost per vessel: Stable at moderate level.
- Total losses: long-term downward trend. Came to a halt with fluctuation below 0.1%.
- Major losses: modest impact after 2015, but increased volatility steered by (non-)occurrence.
- 2017 Nat Cat event loss with severe impact (yachts).

## Results

- With reduced major claims impact, partial losses account for an increasing share of the total claims cost.
- Loss ratios rise. **Current income level does not even cater for expected 'normal' repair cost any more!**
- **No buffer for the return of major losses.**
- For sustainability a balance between the risks covered and the cost must be re-established.  
All risk aspects must be taken into account.

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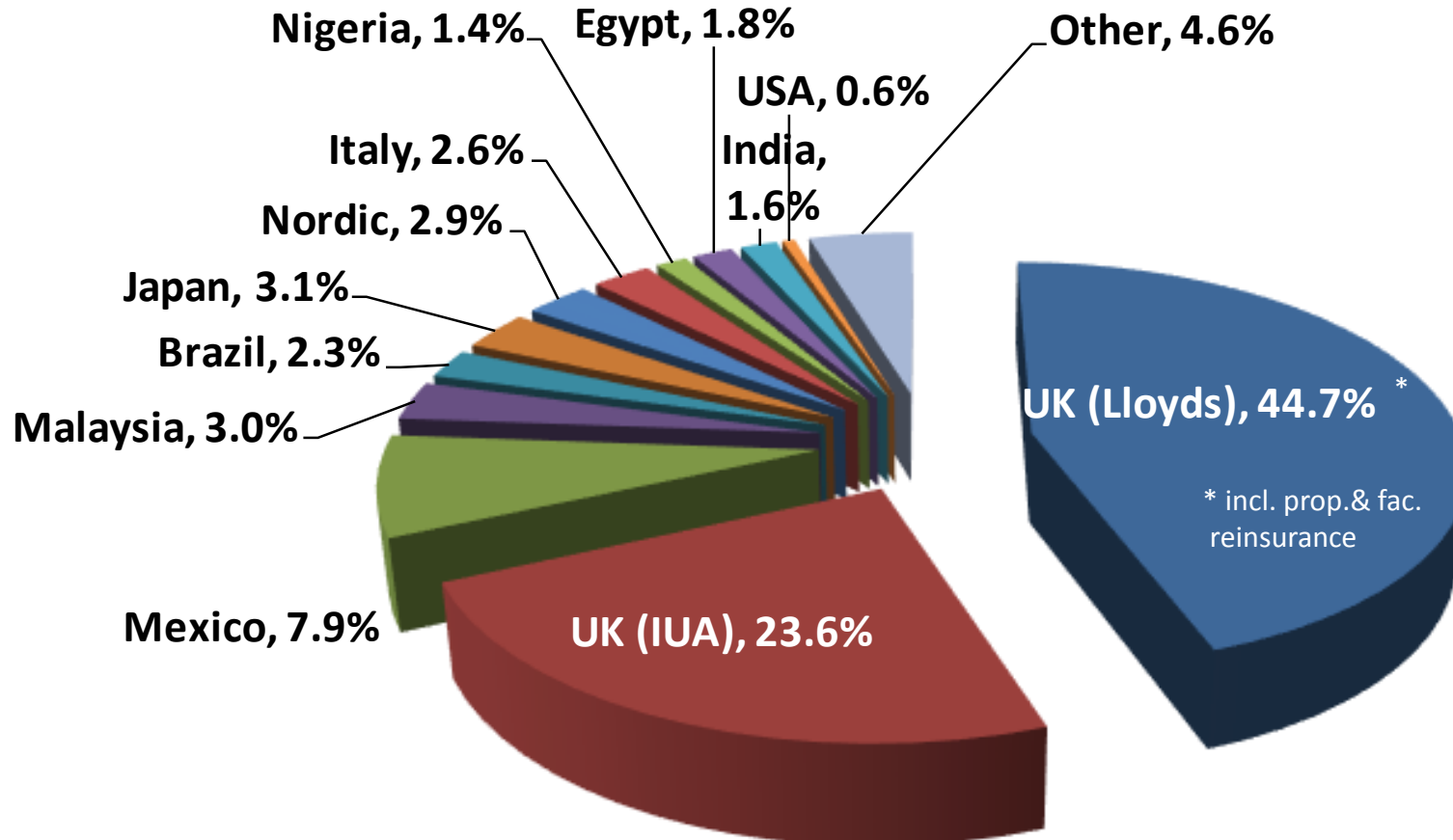
Income / Vessel values / Claims / Loss ratios

**Offshore energy**

Income / Claims / Loss ratios

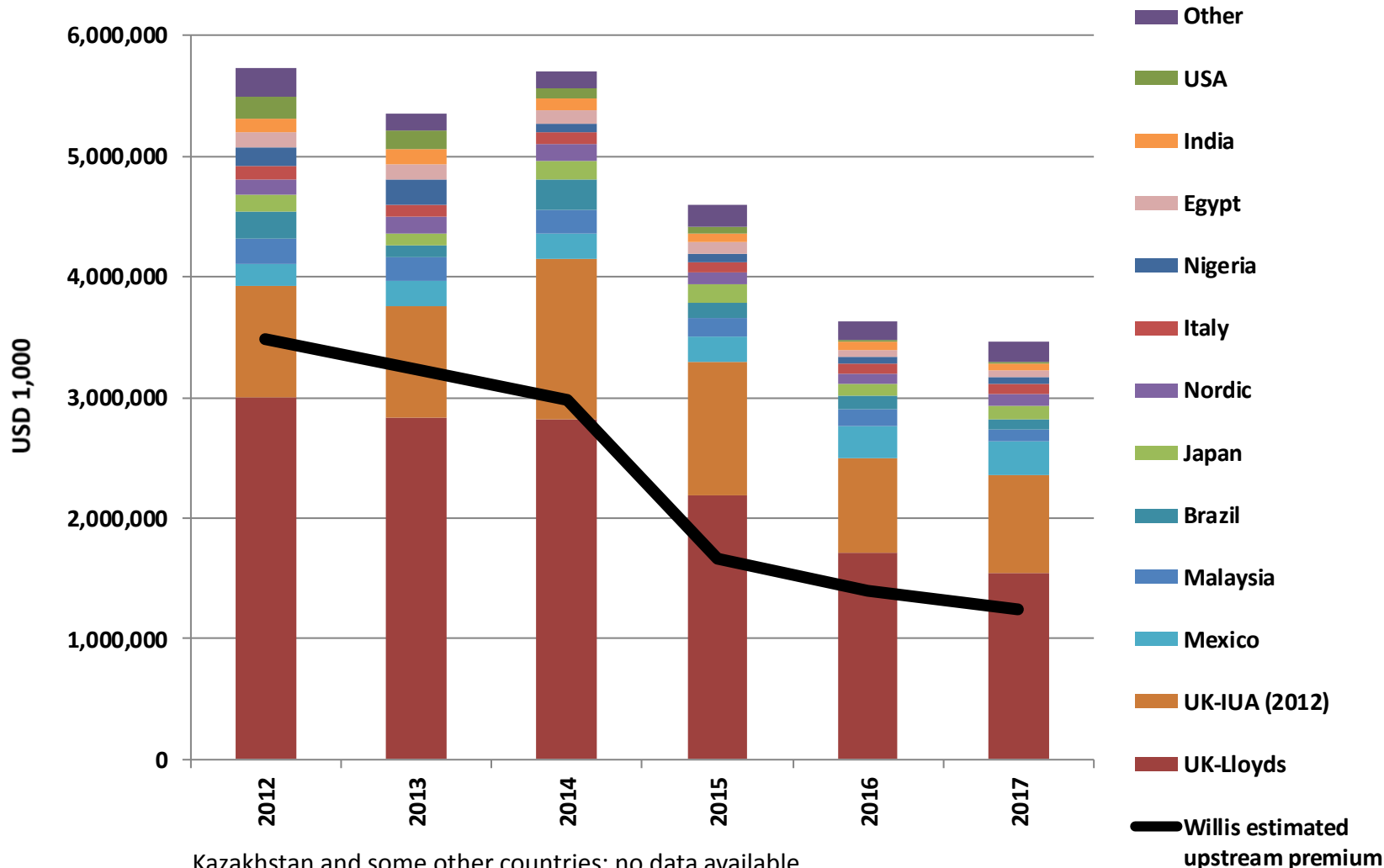
# Offshore Energy Premium 2017

Total estimated: 3.5 USD billion /  
Change 2016 to 2017: -5% (2015 to 2016: -21%!)



Kazakhstan and some other countries: no data available.

# Offshore Energy Premium 2012–2017



Kazakhstan and some other countries: no data available.

IUMI:

Premiums reported by associations.  
Some double-reporting due to global nature of business.

=> Overestimation of global premium.

Willis approach:

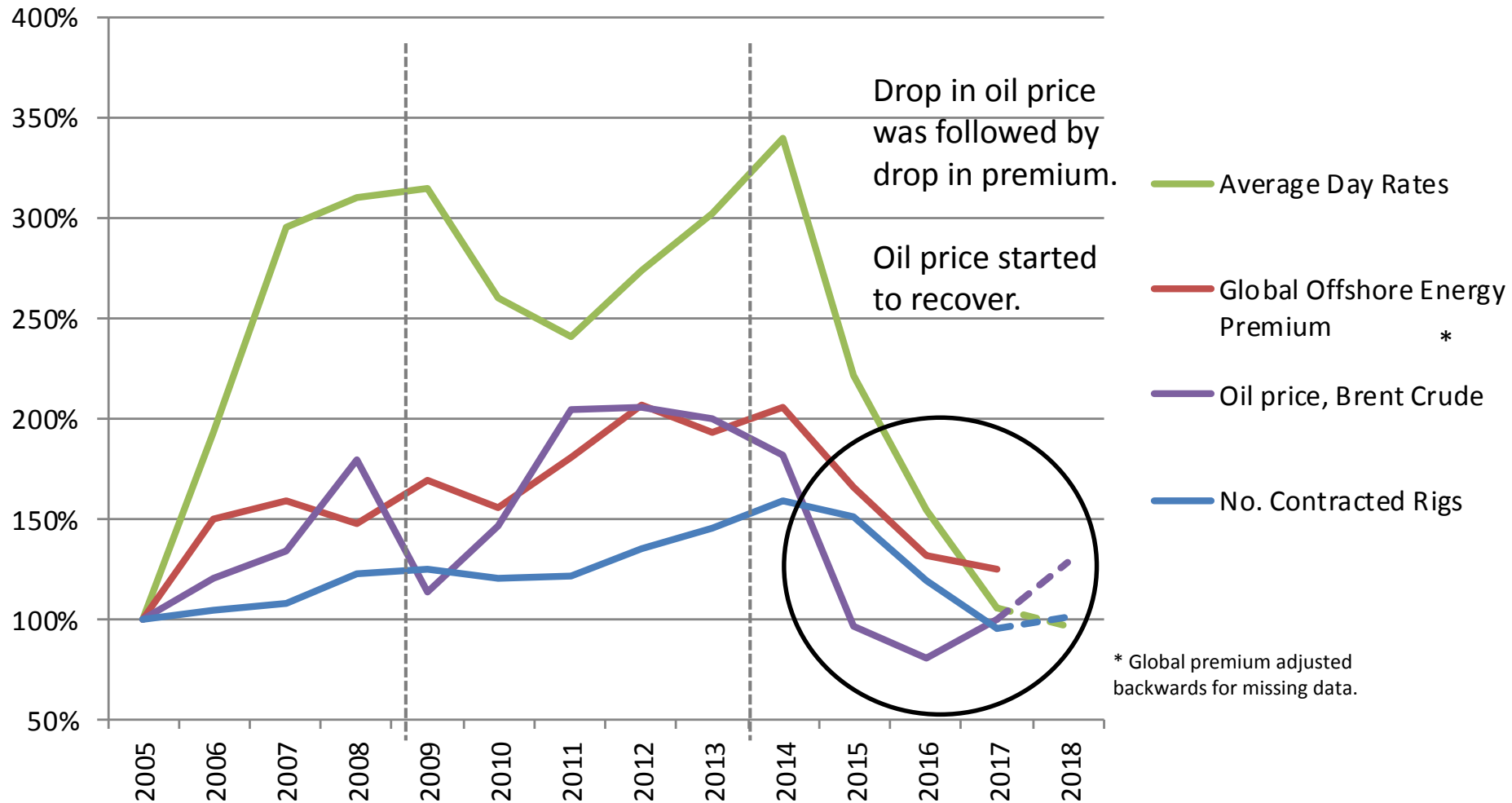
From Lloyds premium triangulation.  
(risk codes EC, EN, EM, EY, EZ).  
Grossed up to 100% by assuming Lloyd's represents 70%.

=> Underestimation of global premium

**The trend is the same:  
Strong decrease from 2014,  
now flattening out.**

# Offshore energy premium

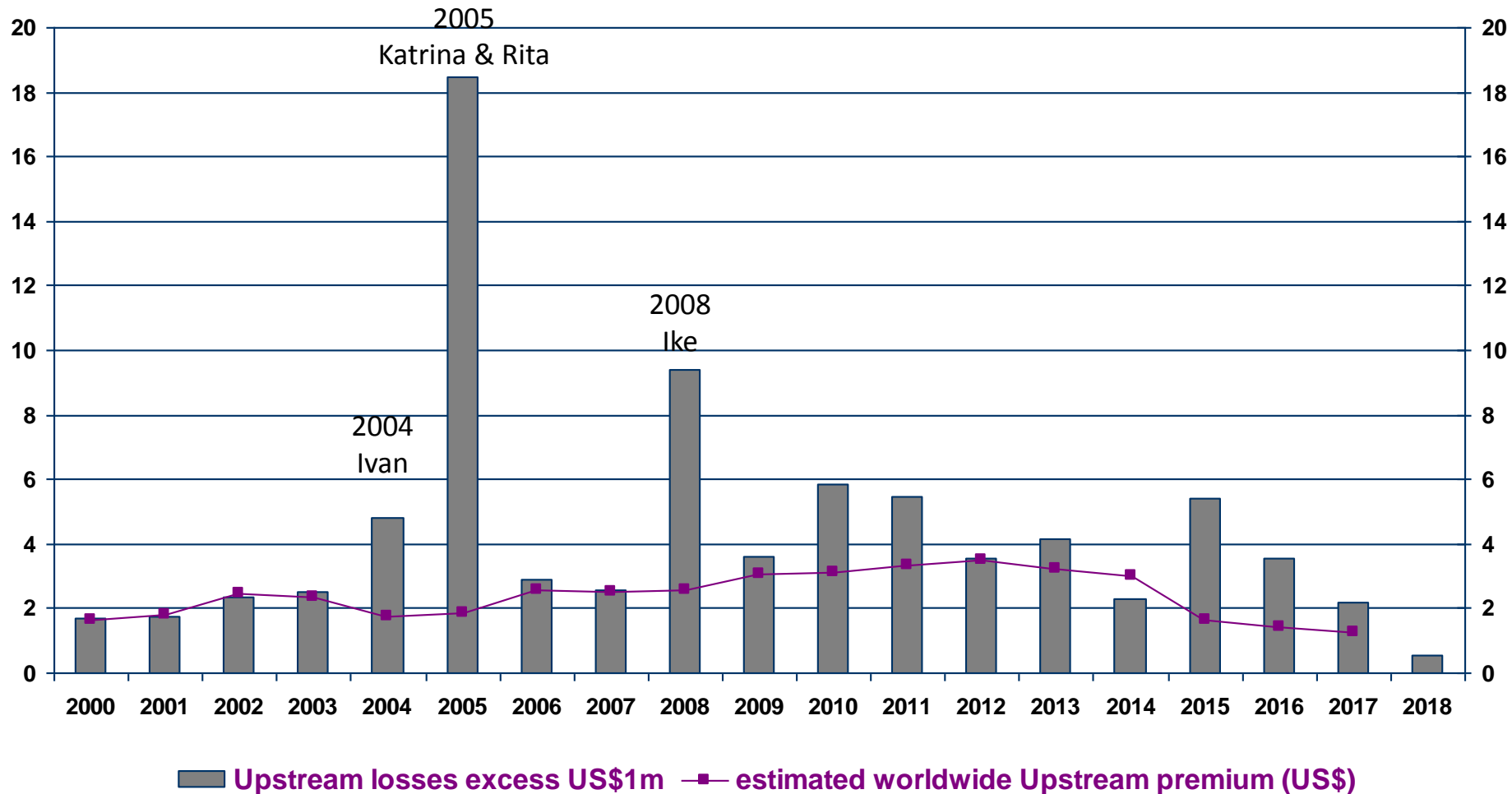
Energy mobiles, day rates, oil price





# WELD Upstream Energy losses versus estimated upstream premium

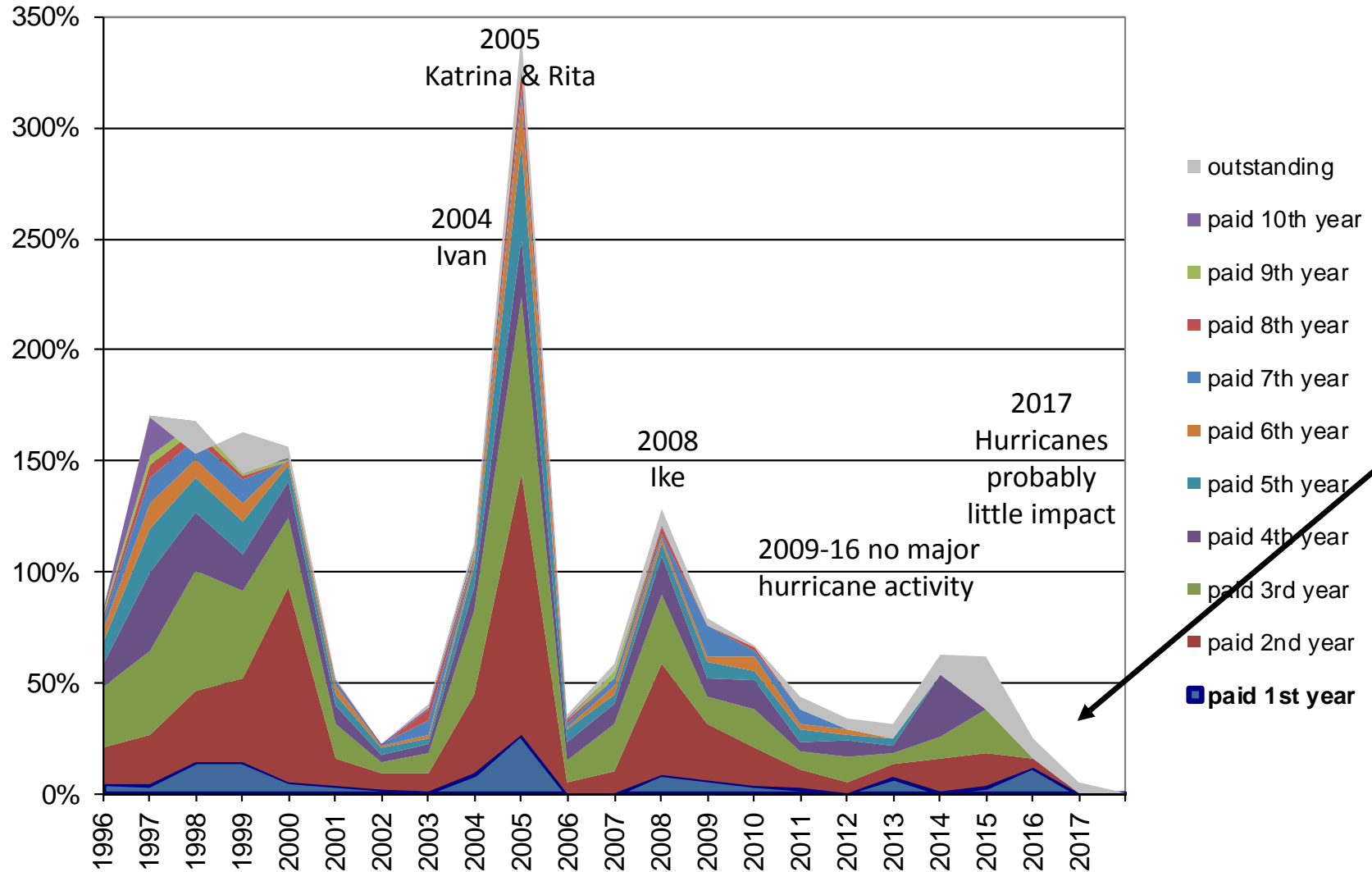
Losses > USD 1 million, 2000-2018



Hurricane impact reduced in recent years. 2017 hurricanes had modest impact on offshore energy.

# Offshore Energy – Gross Loss Ratios

Underwriting years 1996 to 2017 / incl. liability / data from UK, Nordic, US/ reported as of Dec. 2017



Youngest underwriting years still develop, will deteriorate over time.

# Offshore Energy Key points



- Strong drop in premiums followed oil price reduction, but flattening out.
- High-profile losses of recent years little impact on market.
- Weather impact reduced since 2009.  
Hurricanes back in 2017 (Harvey, Irma & others), but little impact.
- Oil price recovering since 2016.
- Downturn in activity starting to reverse. Historically 18 months time lag between improved oil price and authorisation for expenditure.
- More risk retained -> Mismatch between capacity and insurable objects.
- 2018: Risks and claims potential arising from unit reactivation an issue.

# Take-away points



## **Cargo**

- Results strongly impacted by recent years' unprecedented event losses (man-made & Nat-cat).
- Value ACCUMULATION an issue (on land and at sea)

## **Hull**

- Results deteriorate further despite last years' benign claims trends (except yachts).
- Current income unsustainable, does not cater for expected normal repair cost any more.

## **Offshore energy**

- Income substantially reduced following reduced activity, but oil price started to recover.
- Benign claims impact in recent years, but high risk exposure.
- Risks following reactivation of units currently a major issue.

## **Market environment**

- Trade growth accelerating, but political and economic uncertainty prevails.
- Climate change / Nat-Cat losses /accumulation / new risks.

# Issues to monitor



High-value risks

Oil price, fuel quality

Changes in regulation (liabilities)

Human factor/  
Qualification

Climate change

Fire on RoRo & Container vessels



Value accumulation

Arctic risks

Cyber risk

New technology

Internet of things/complex technologies

Navigation



# THANK YOU



ASTRID SELTMANN

Analyst/Actuary  
The Nordic Association of Marine Insurers (Cefor)  
[astrid.seltmann@cefor.no](mailto:astrid.seltmann@cefor.no)





# 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 calendar 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 occurring 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.