

Marine Insurance – Casualty trends

IUMI @ IMO 2019

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CONTENTS

- IUMI Facts & Figures Committee
- The Global Marine Insurance Market
- Vessel values & fleet trends with impact on casualty trends
- CASUALTY TRENDS

Main data sources

Premiums: IUMI (Global Marine Insurance Report, September 2018)
Fleet data: Lloyds List Intelligence, Clarksons Research,
Vessel values: Nordic Marine Insurance Statistics (NoMIS)
Casualties: Nordic Marine Insurance Statistics (NoMIS)
p. 21-24: Lloyds List Intelligence



CONTENTS – CASUALTY TRENDS

SHIPOWNERS' LIABILITY

- Pool claims International Group of P&I Clubs

HULL CASUALTY TRENDS

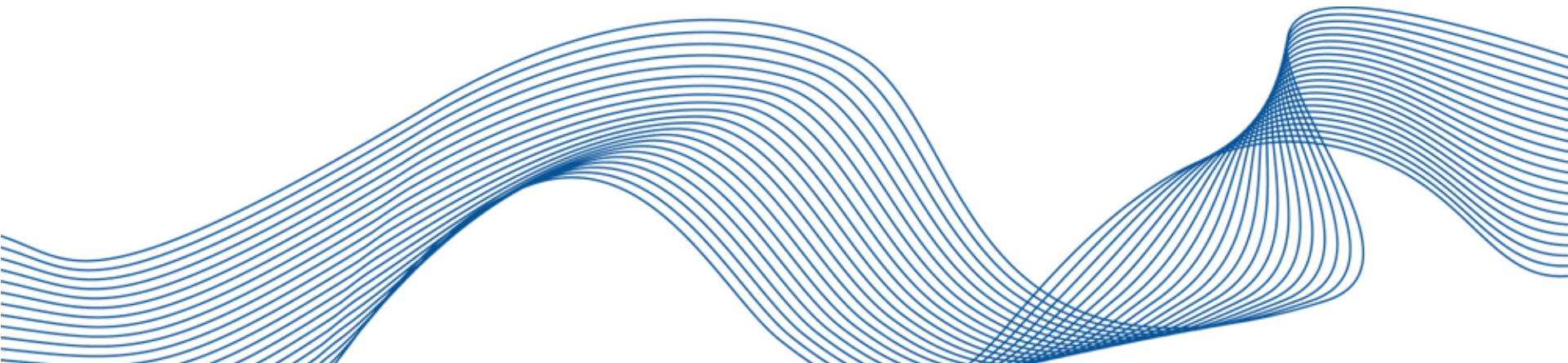
- Total and major losses
- Trends by type of casualty
- Trends by age group & vessel type
- Cost driving factors

SPECIAL

- Detentions – Indicator of future casualties
- Fires on container vessels



IUMI FACTS & FIGURES COMMITTEE



IUMI FACTS & FIGURES – STATS & PROJECTS

Spring – newest edition March 2019

- Spring statistics & analysis for Hull, Cargo, Offshore energy

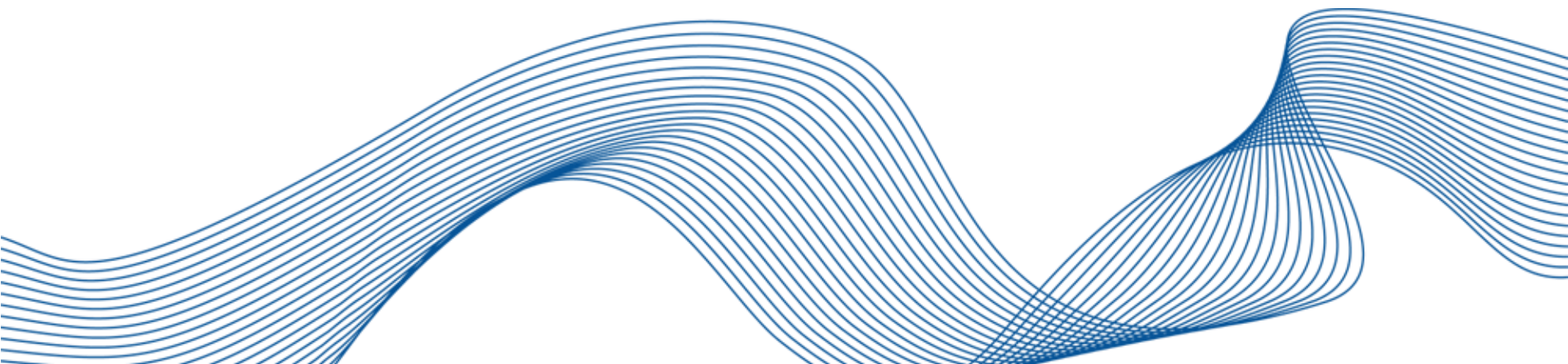
Autumn – next publication at IUMI conference 15-18 Sept. 2019 Toronto

- Report on World Merchant Fleet and World Trade (F&F chair)
- Global Marine Insurance Report & data downloads (Astrid Seltmann)
- Fact Sheets Hull, Energy, Cargo
- Cost inflation indices for Hull and Cargo business
- Update on major claims database project
(pilot run 2018, new data collection 2019 from 7 (cargo: 9) associations)
- **New 2018:** IUMI Stats Report – Market analysis based on conference publications

Other projects

- Analyse new demands (fishing vessels, yachts, carriers & marine liability, ...)
- Cooperation with other maritime forums such as IUMI @ IMO

THE GLOBAL MARINE INSURANCE MARKET

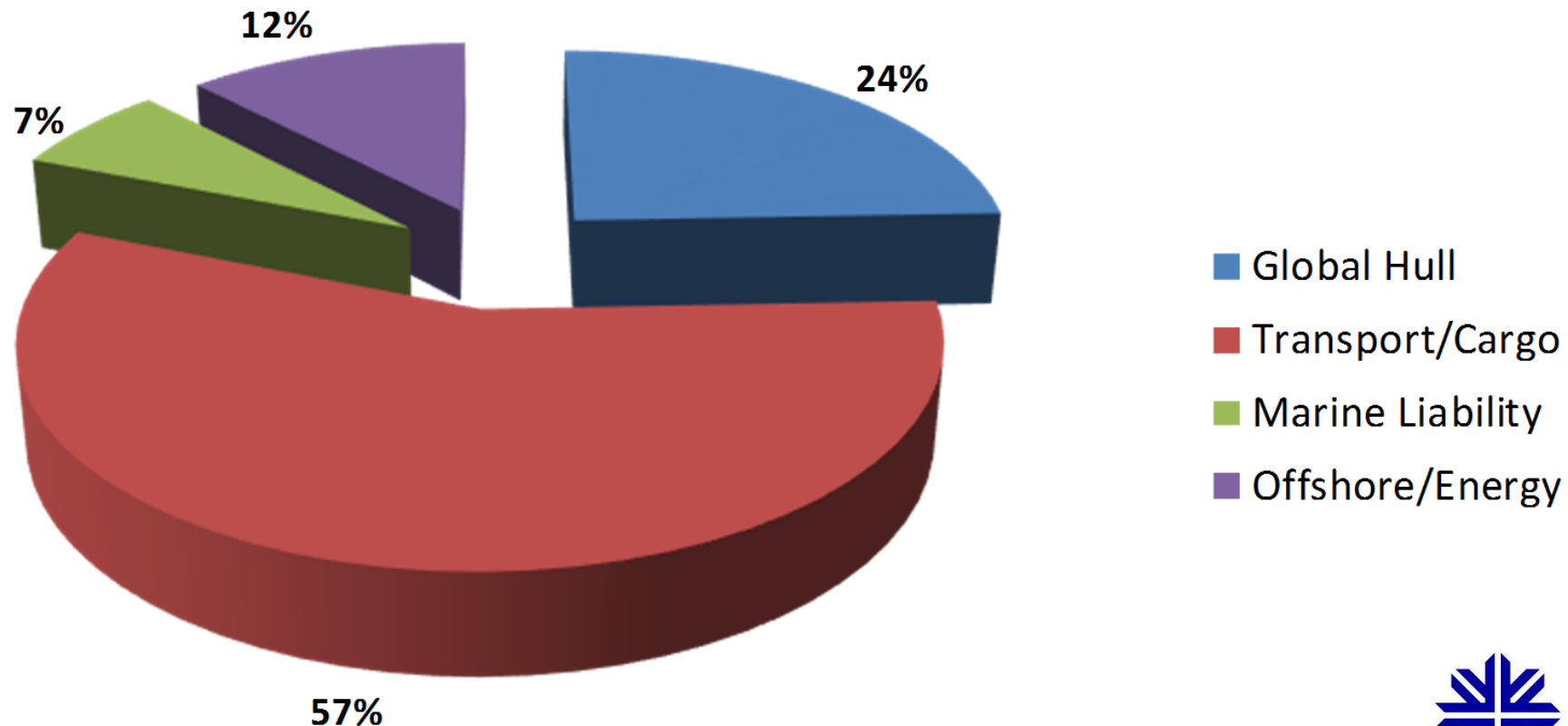


MARINE PREMIUM 2017

BY LINE OF BUSINESS

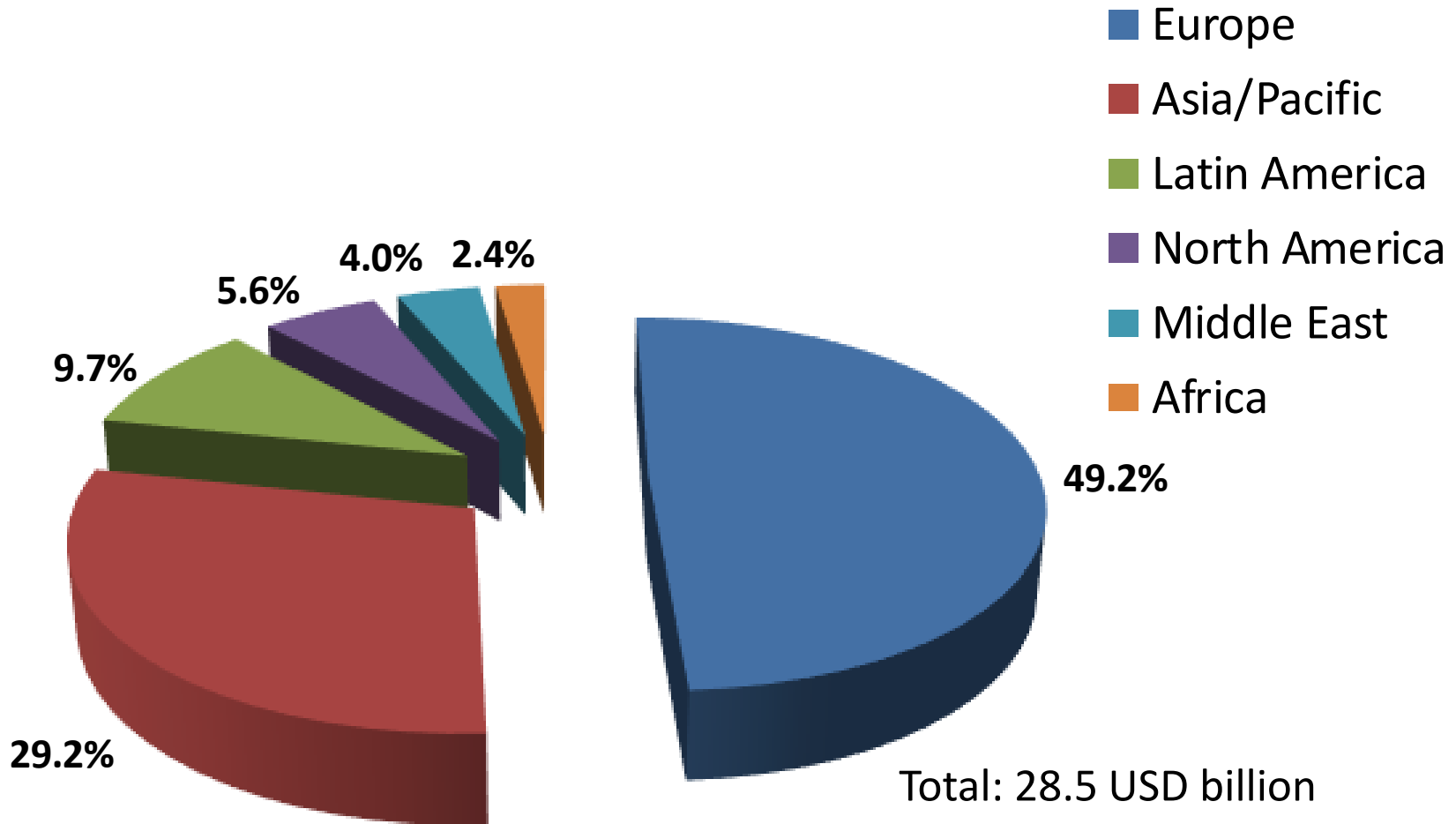
Total estimate 2017: 28.5 USD billion / Change 2016 to 2017: +2%

NB: Exchange rate effects!



MARINE PREMIUM 2017

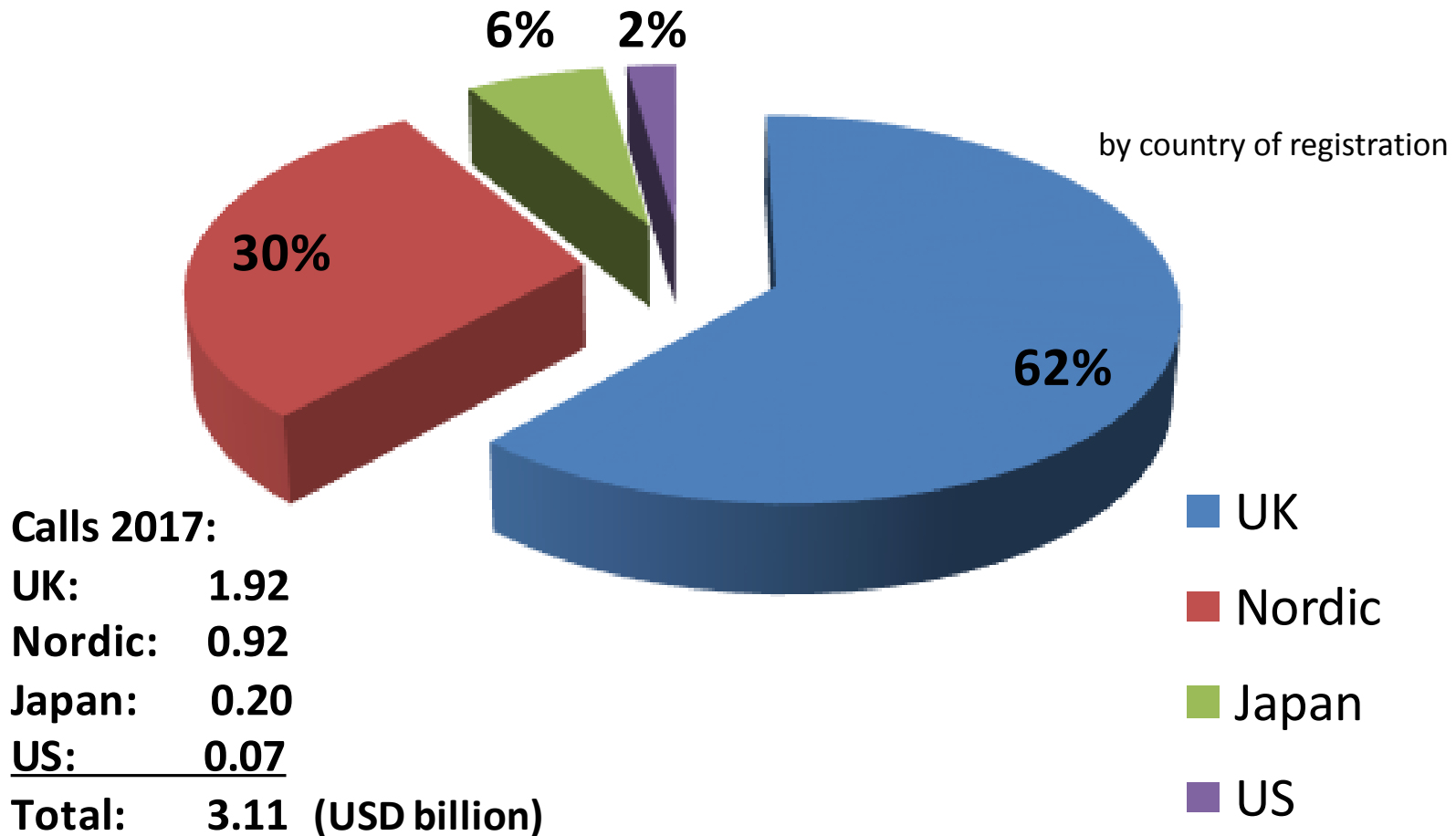
BY REGION



P&I CLUBS INTERNATIONAL GROUP

PROTECTION & INDEMNITY = SHIPOWNERS' LIABILITY

GROSS CALLS (PREMIUM) 2017 – OPERATIONAL LOCATION

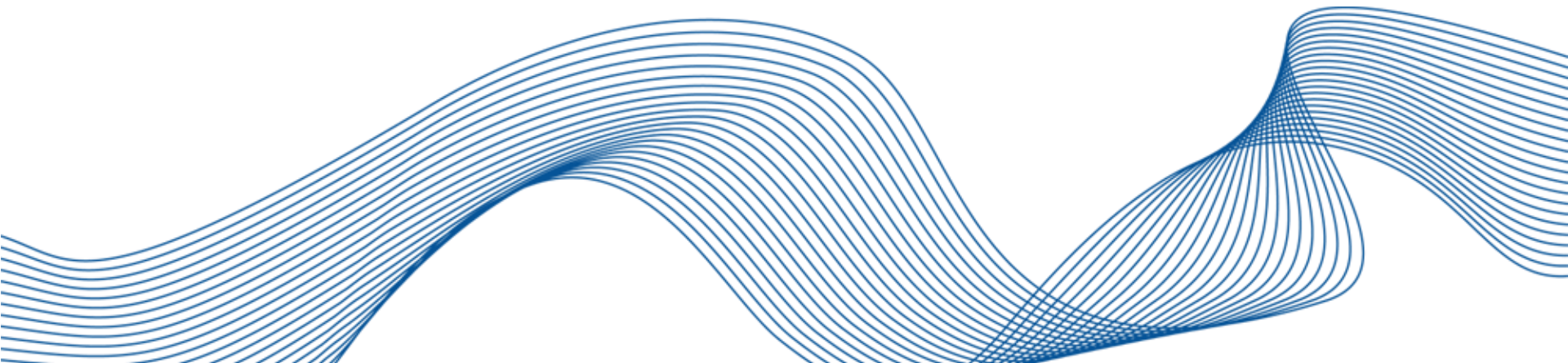


IUMI

VESSEL VALUES & WORLD FLEET



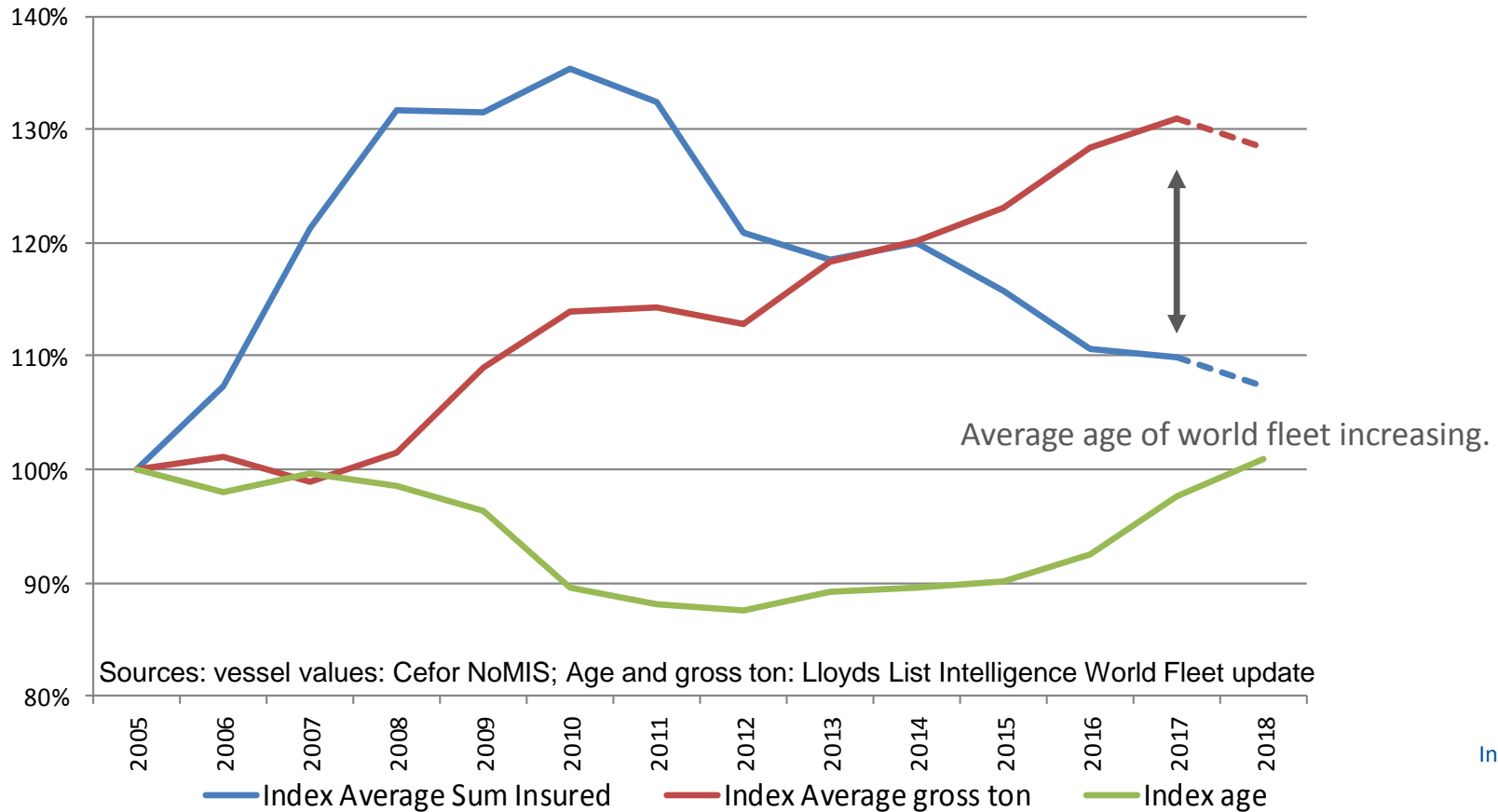
Foto: Astrid Seltmann



INDEX OF AV. VESSEL VALUES, GT & AGE

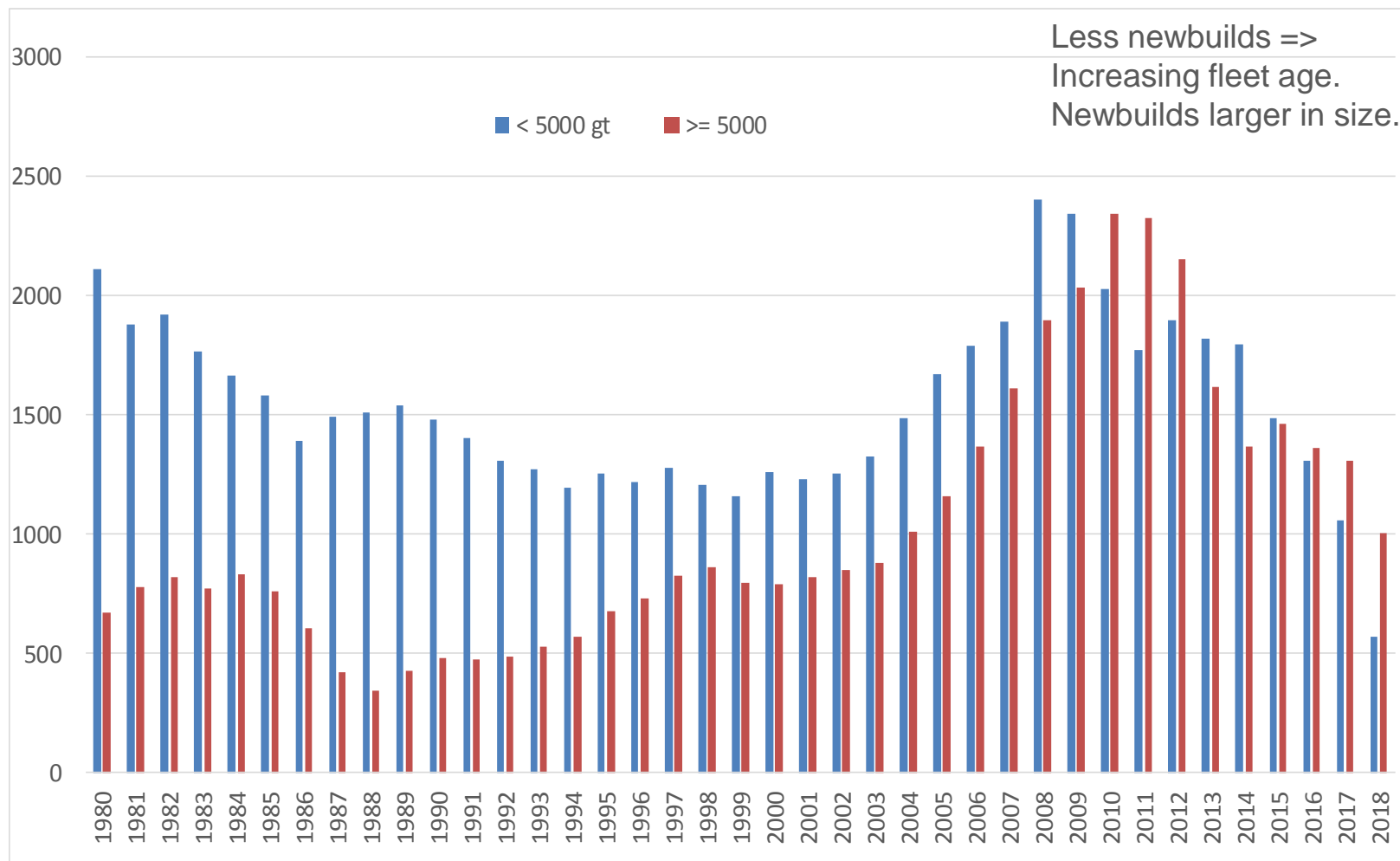
2005 = 100% (SAME VESSELS IN SELECTION)

INCREASING GAP BETWEEN VESSEL SIZE & VALUE



NEWBUILDS WORLD FLEET – LESS & LARGER VESSELS

VESSELS LESS THAN AND ABOVE 5,000 GROSS TON



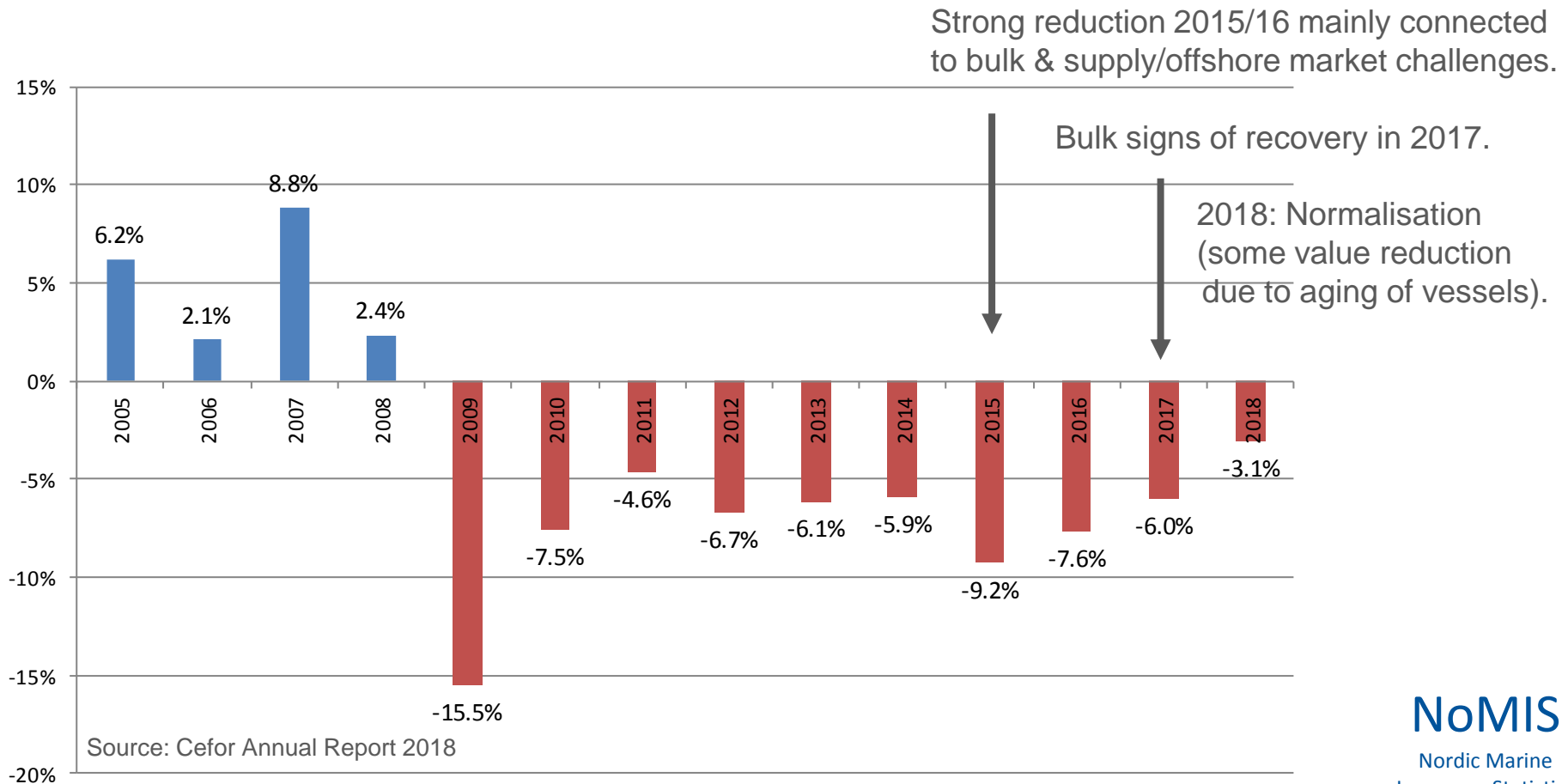
Source: Lloyds List Intelligence, World Fleet Update, as of January 2019; Graph: Cefor Annual Report 2018

NoMIS
Nordic Marine
Insurance Statistics

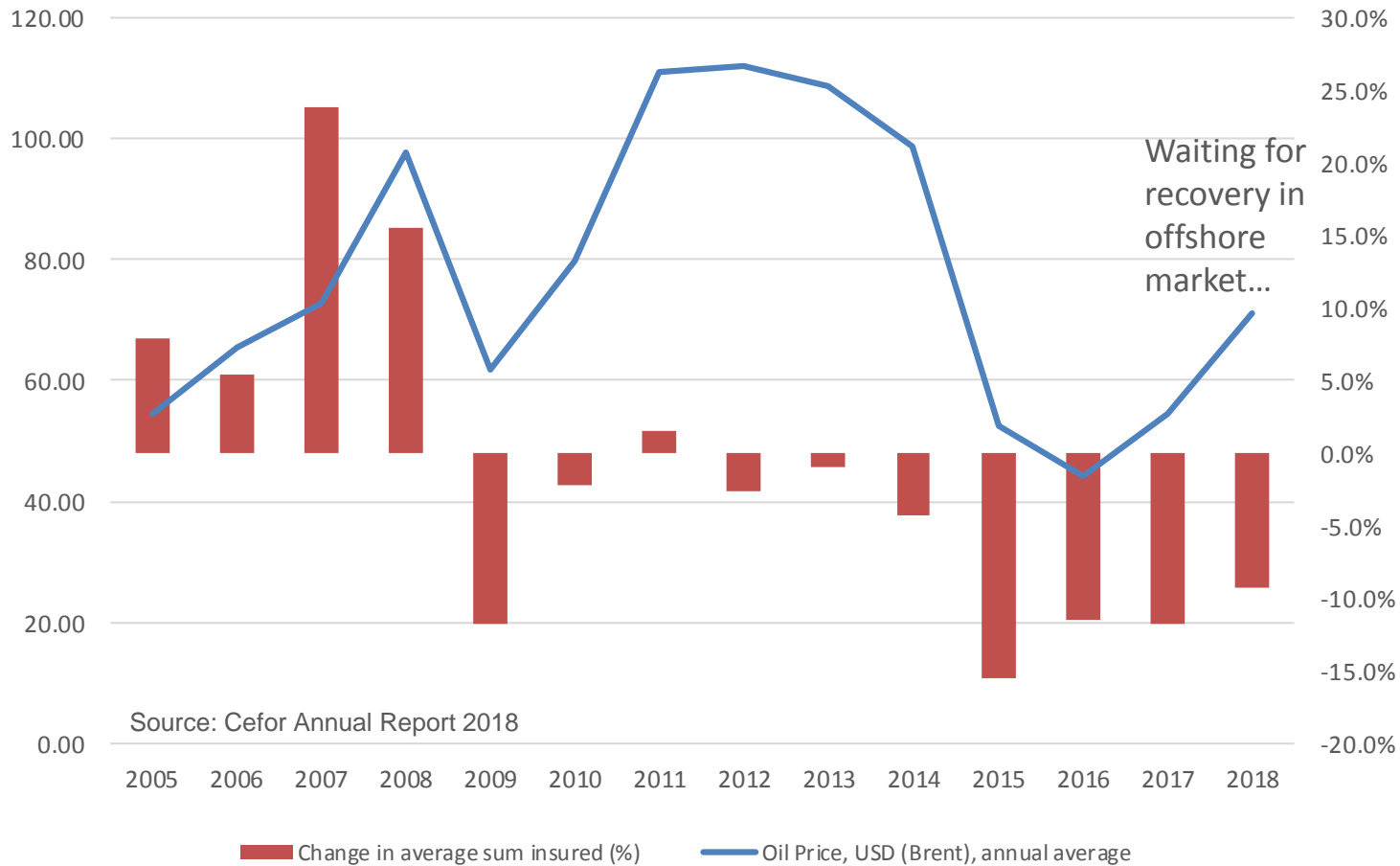


ANNUAL CHANGE IN VESSEL VALUES

COMPARING INS. VALUE OF SAME VESSELS IN TWO CONSECUTIVE YEARS



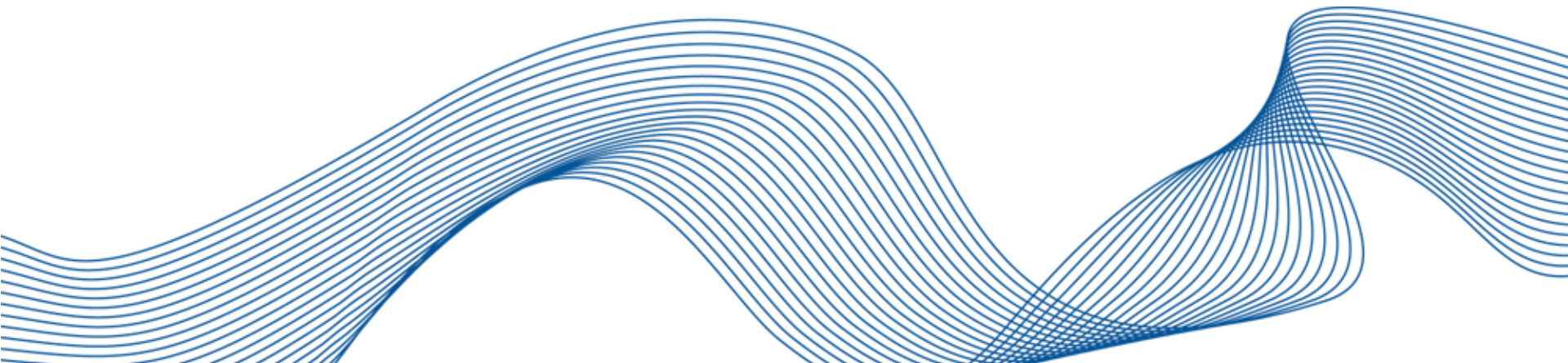
OFFSHORE VESSEL VALUES & OIL PRICE



CASUALTY TRENDS



Foto: Astrid Seltmann

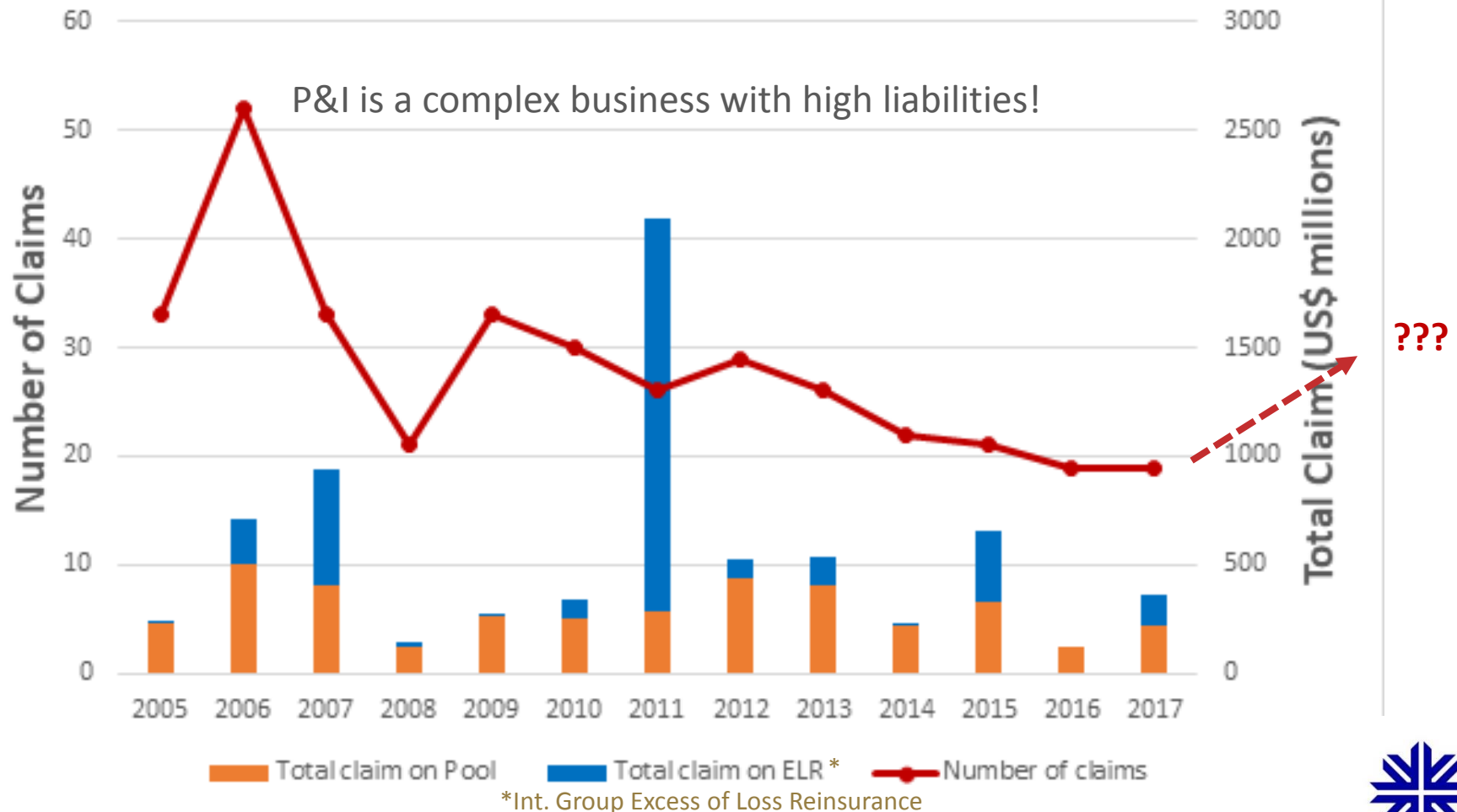


TYPES OF (INSURED) CASUALTIES

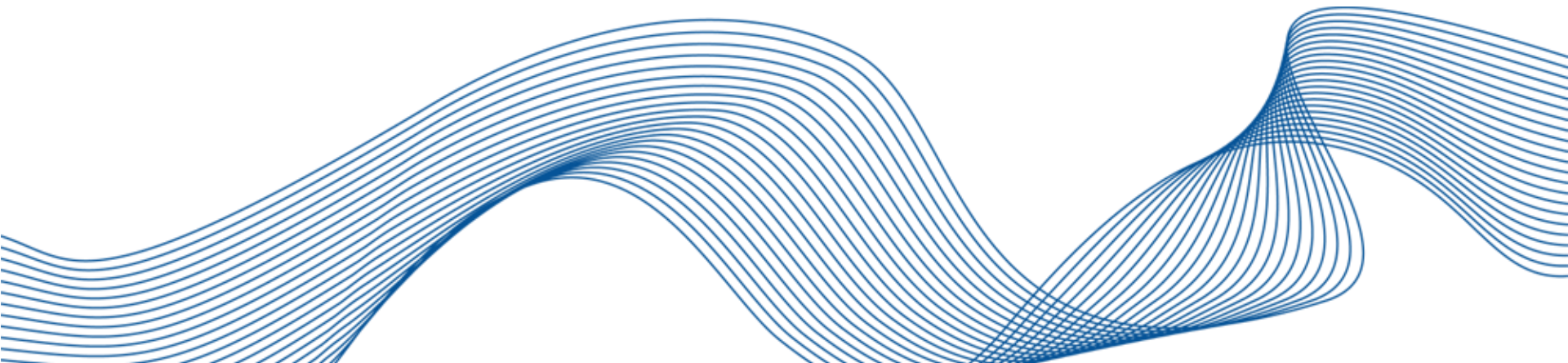
- Physical damage – vessels, offshore energy units, cargo
- Third party liability
 - To object e.g. collision
 - People (passengers, crew)
 - Environmental damage (e.g. oil spill)
- Loss of income
- Terror etc.

LIABILITY: P&I POOL CLAIMS BY POLICY YEAR

Modest claims impact in recent years, but:
End of 2018 / 1st quarter 2019 number of severe casualties affecting P&I!

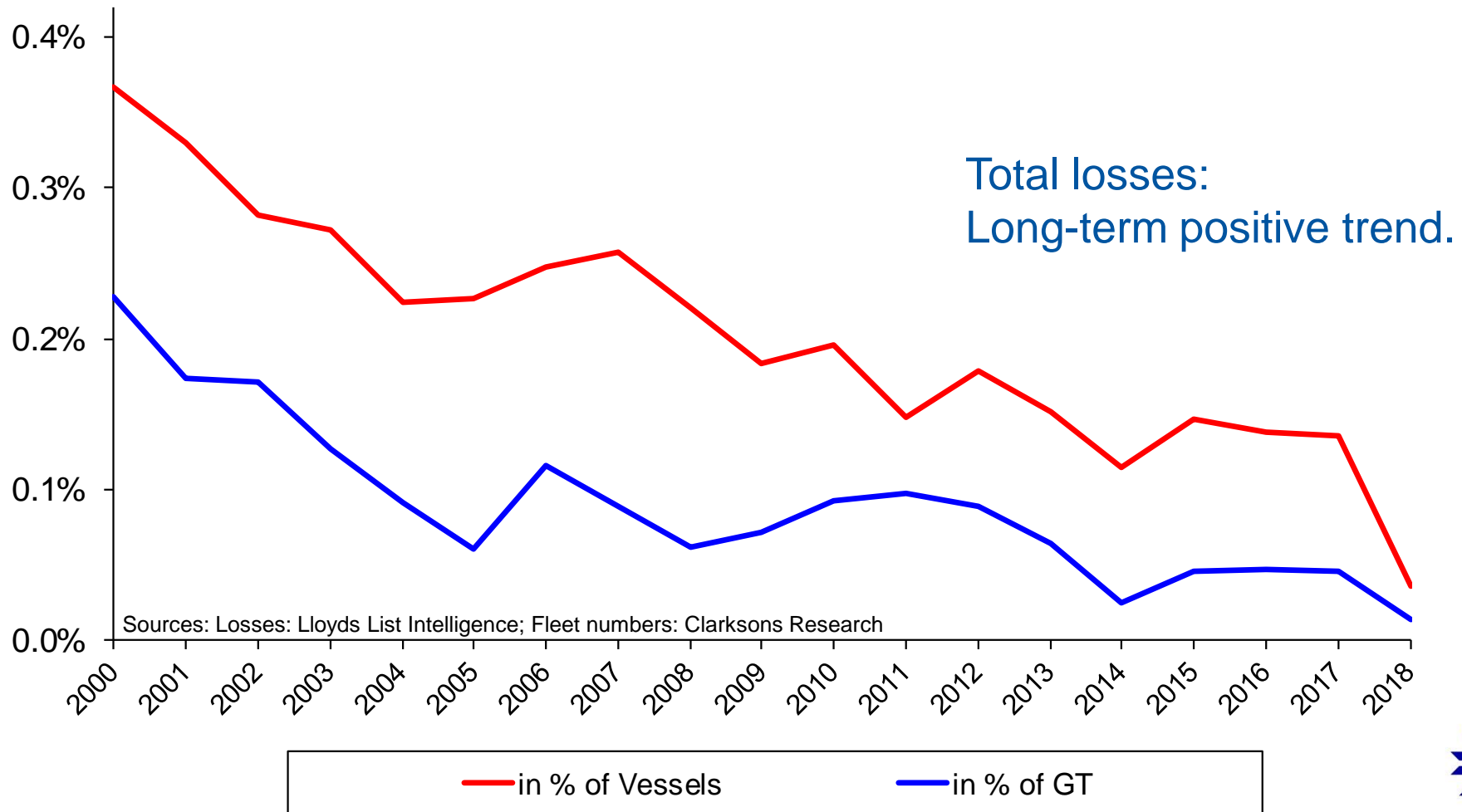


HULL CASUALTY TRENDS – FREQUENCY



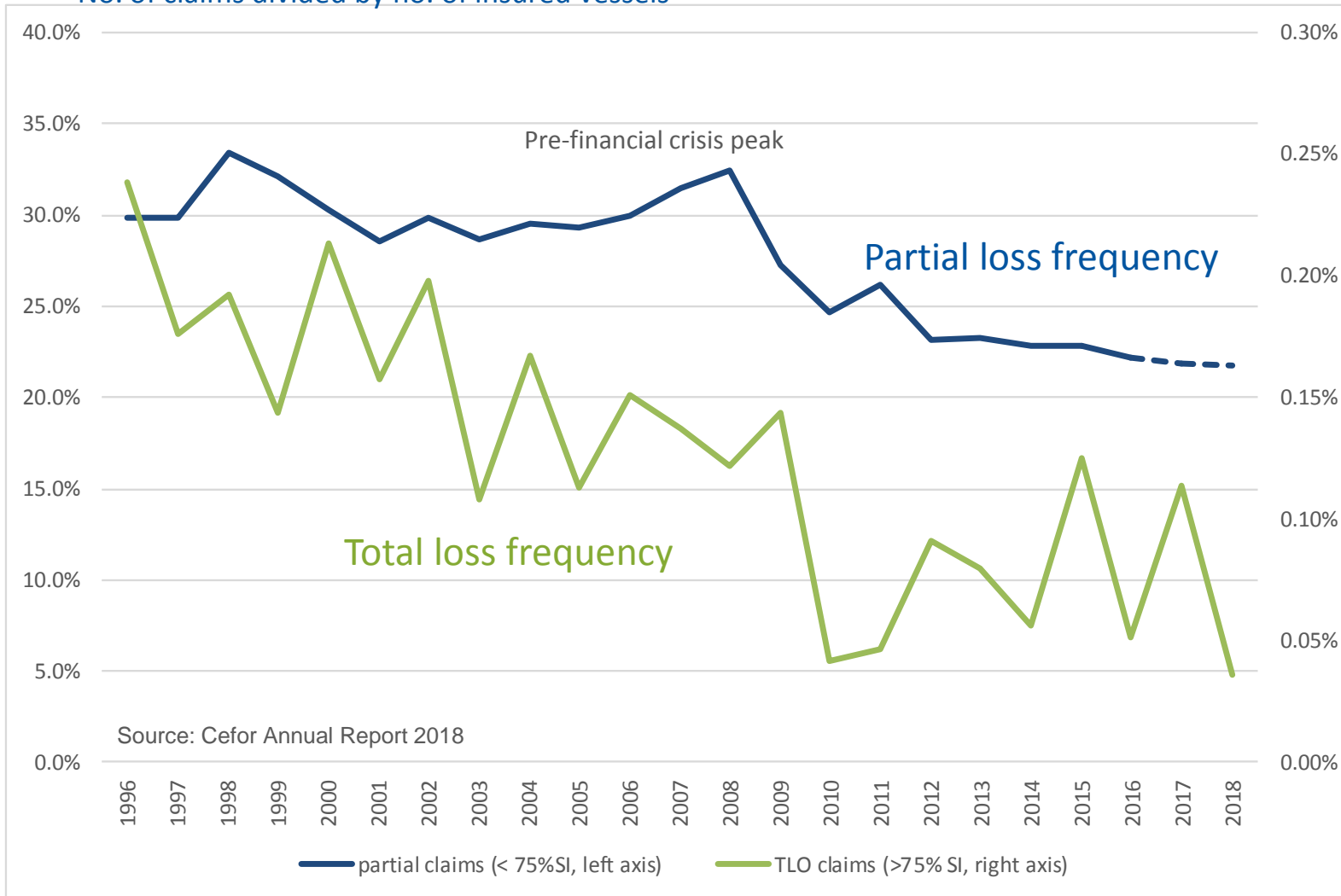
TOTAL LOSSES 2000-2018 (LLI)

AS % OF WORLD FLEET, VESSELS > 500 GT

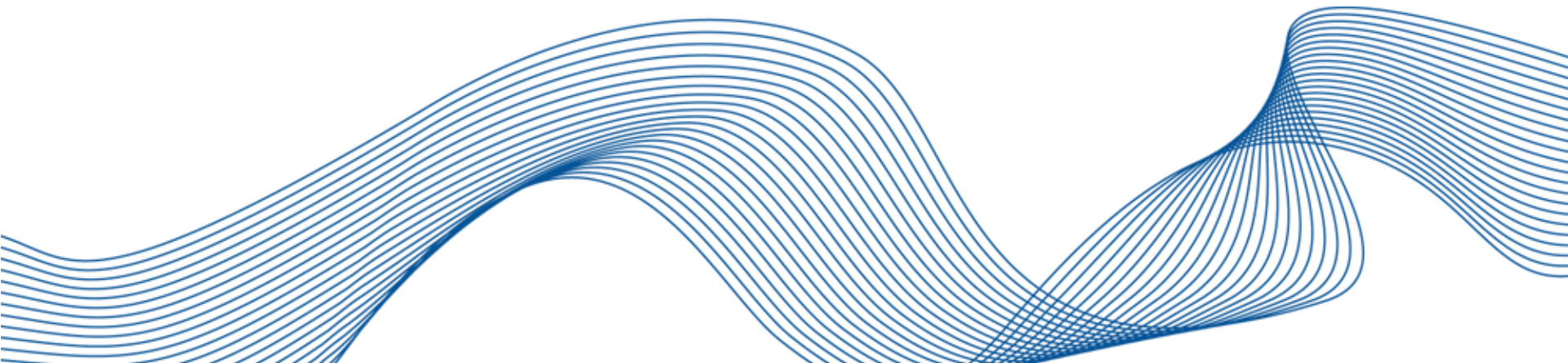


CLAIMS FREQUENCY* (NOMIS): LONG-TERM POSITIVE TREND

* = No. of claims divided by no. of insured vessels

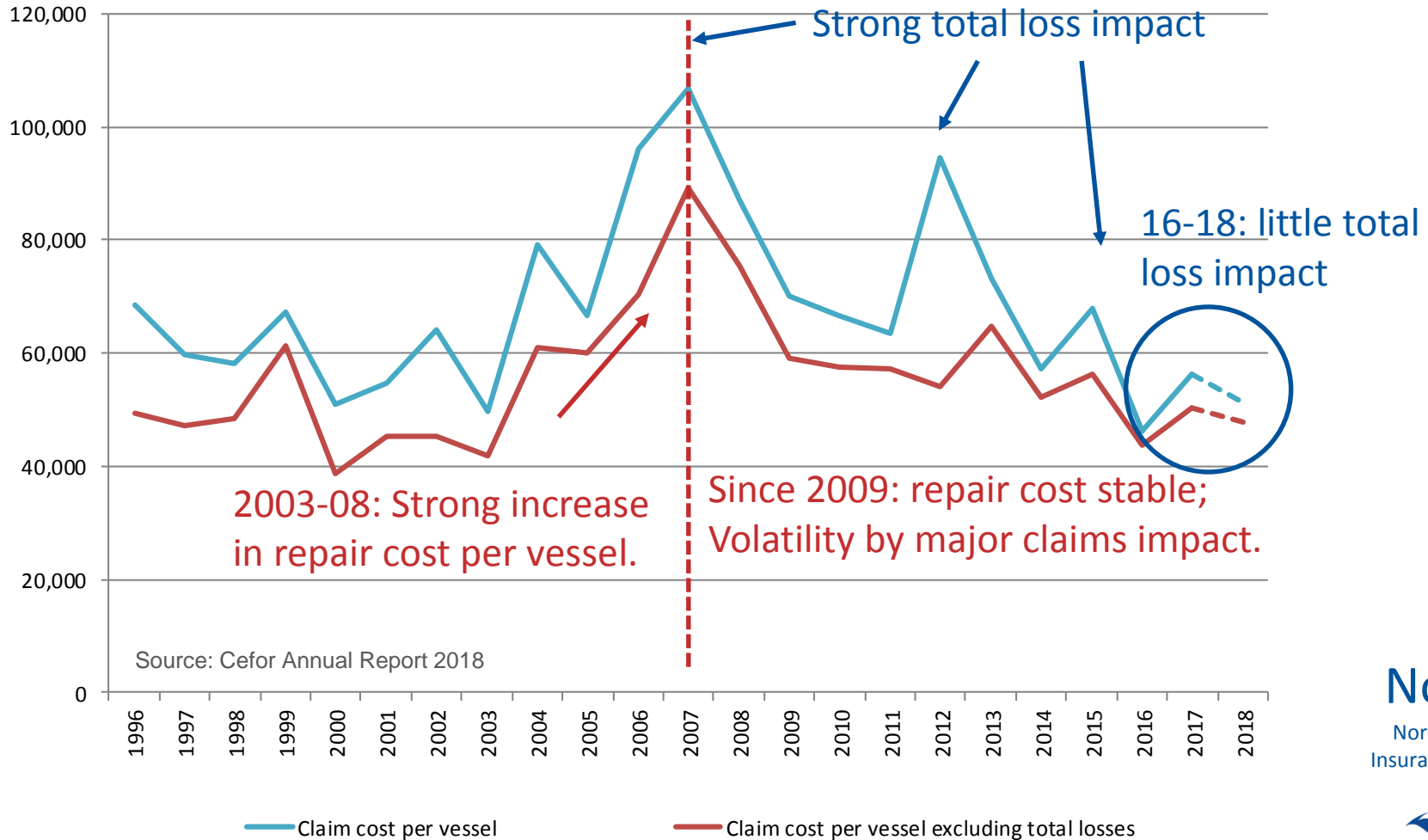


HULL CASUALTY TRENDS – COST



CLAIM COST PER VESSEL AS OF 31 DEC 18 STABILIZING AT LOW LEVEL

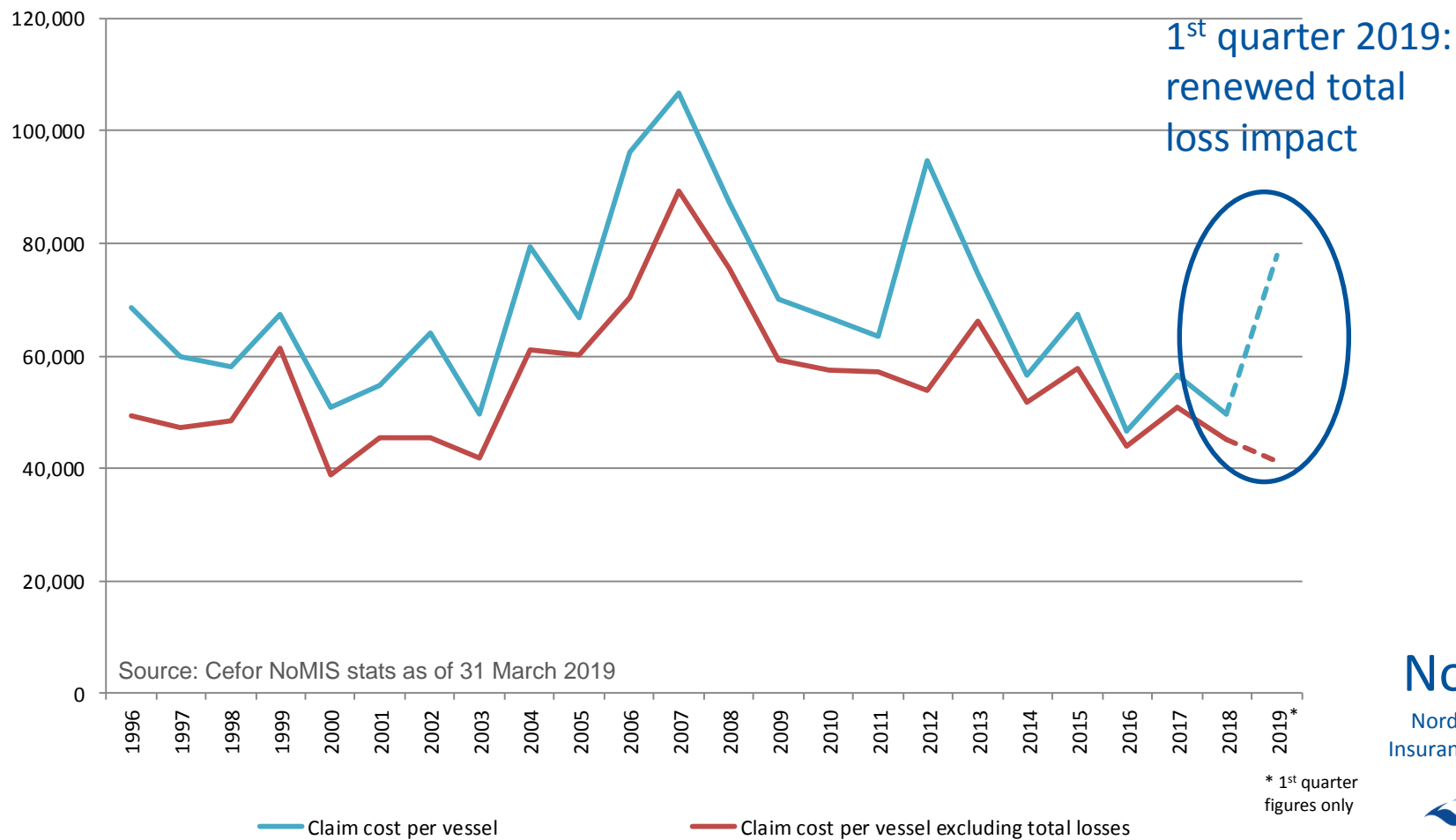
INCLUDING/EXCLUDING TOTAL LOSSES



CLAIM COST PER VESSEL AS OF 31 MAR 19

STRONG TOTAL LOSS IMPACT 1ST QUARTER 2019!

INCLUDING/EXCLUDING TOTAL LOSSES



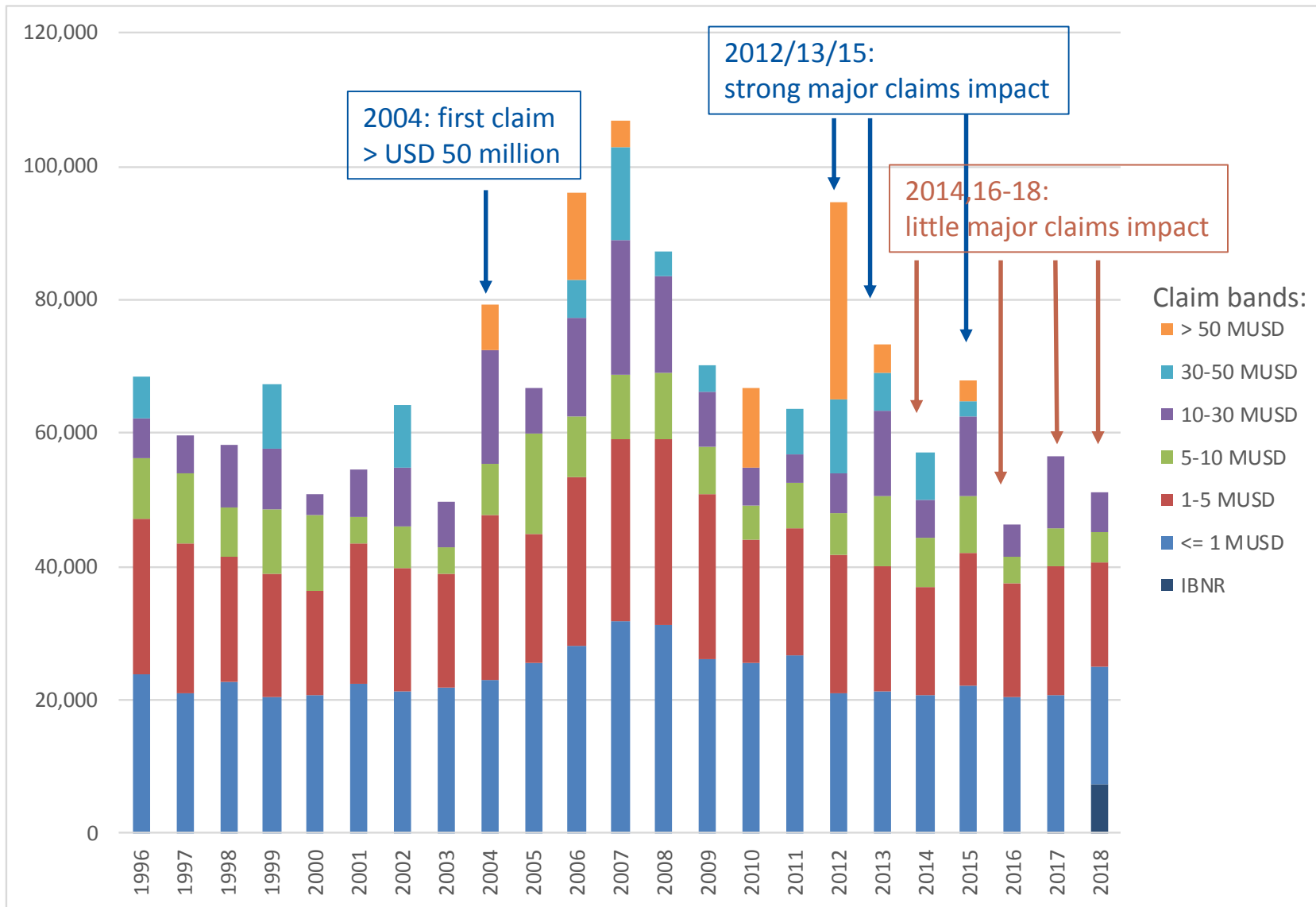
Source: Cefor NoMIS stats as of 31 March 2019

* 1st quarter figures only

NoMIS
Nordic Marine
Insurance Statistics



CLAIM COST PER VESSEL AS OF DEC 2018: 3 YEARS WITHOUT CLAIMS > USD 30 MILLION



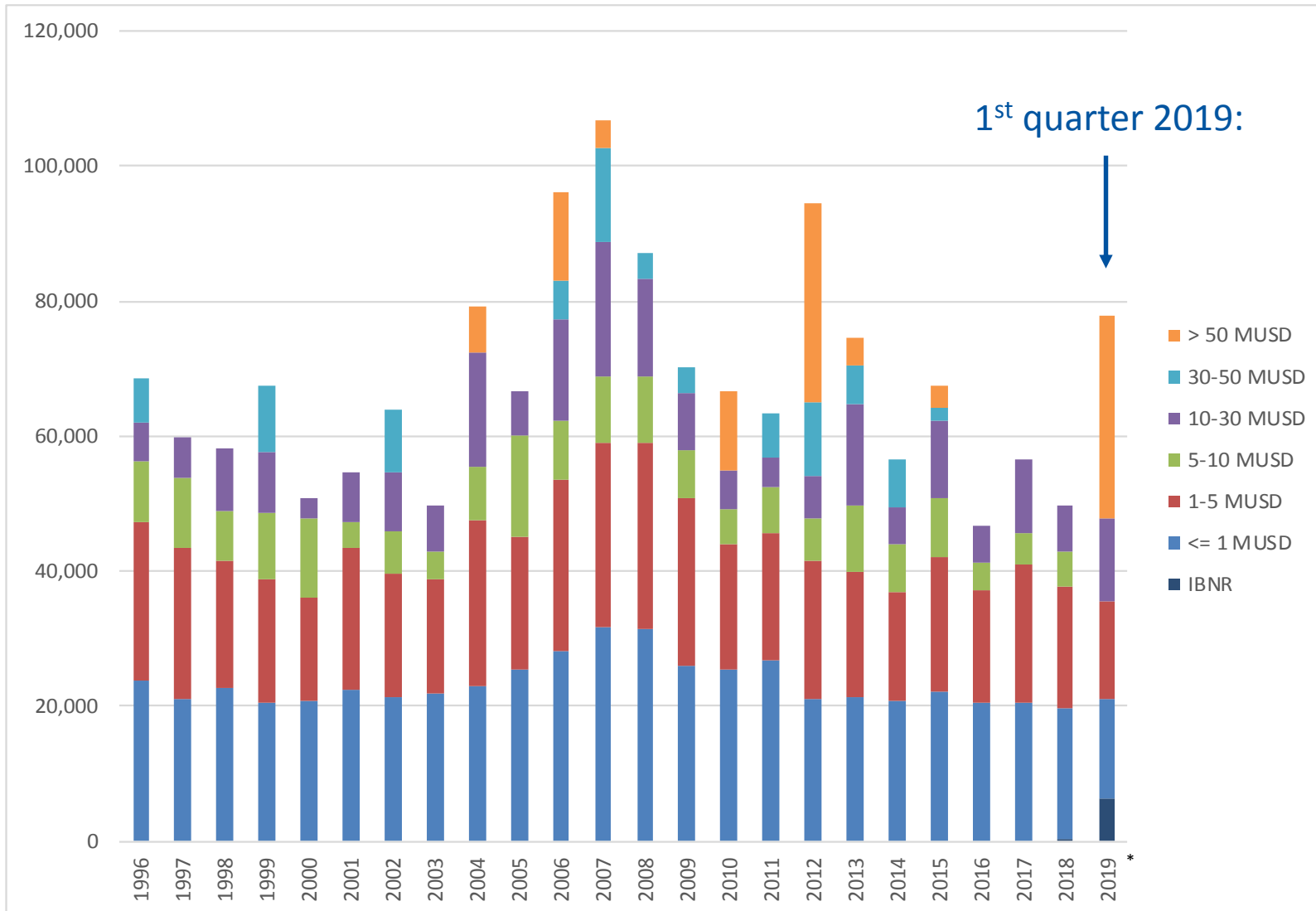
Source: Cefor Annual Report 2018

NoMIS
Nordic Marine
Insurance Statistics



CLAIM COST PER VESSEL AS OF 31 MARCH 19

MAJOR CLAIMS REVIVAL



Source: Cefor NoMIS stats as of 31 March 2019

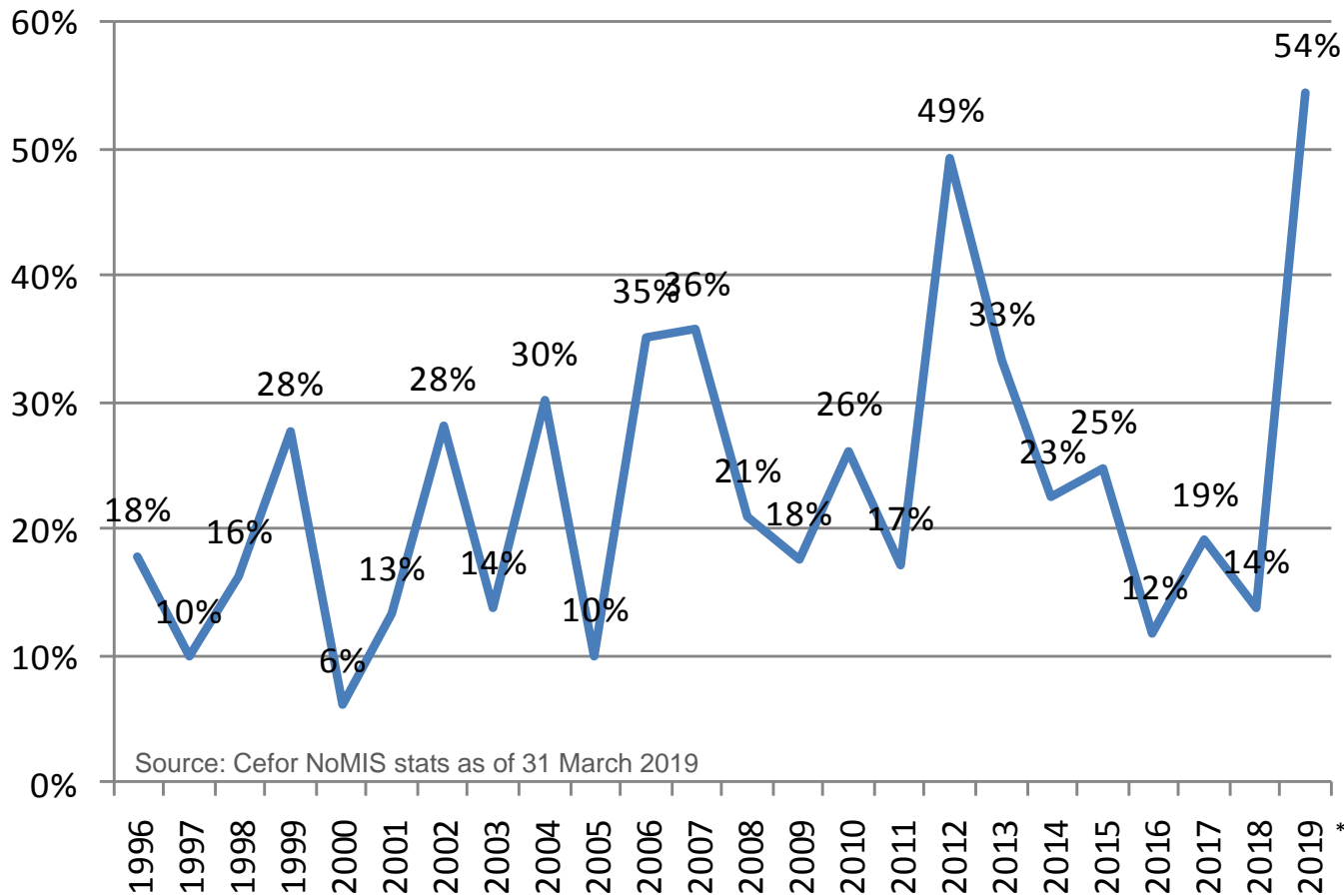
* 1st quarter figures only

NoMIS
Nordic Marine
Insurance Statistics



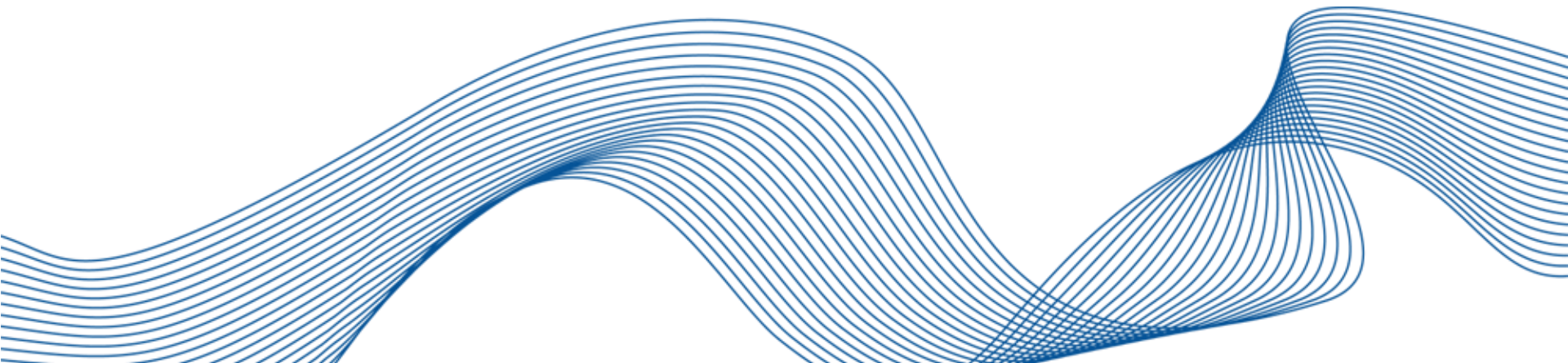
CLAIMS IN EXCESS OF USD 10 MILLION IN % OF TOTAL CLAIMS COST*

* 2019: 1ST QUARTER DATA ONLY



* 1st quarter
figures only

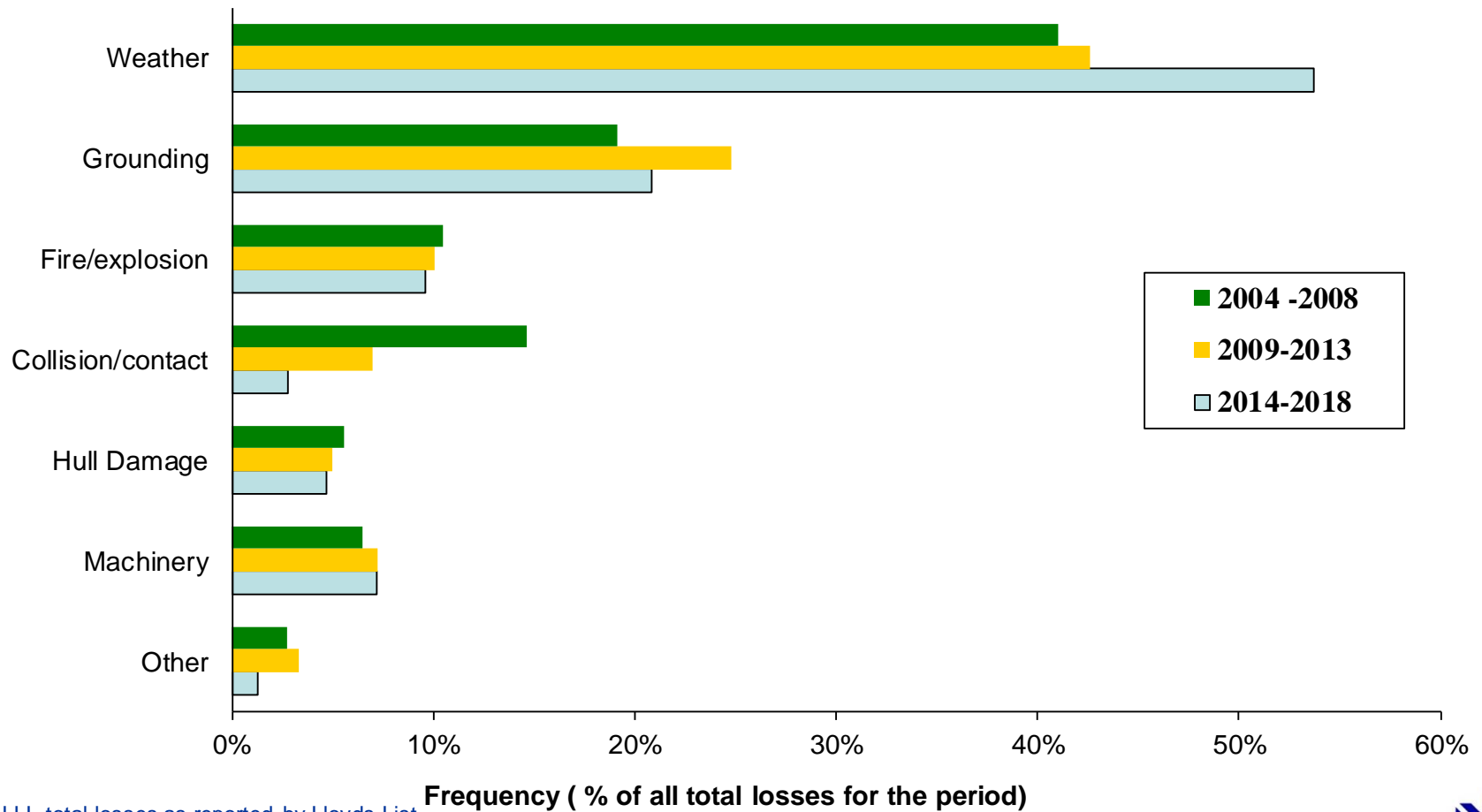
HULL CASUALTIES – BY TYPE OF CASUALTY



TOTAL LOSSES 2004 – 2018

by cause, all vessel types, vessels > 500 GT

(Lloyds List Intelligence categories)

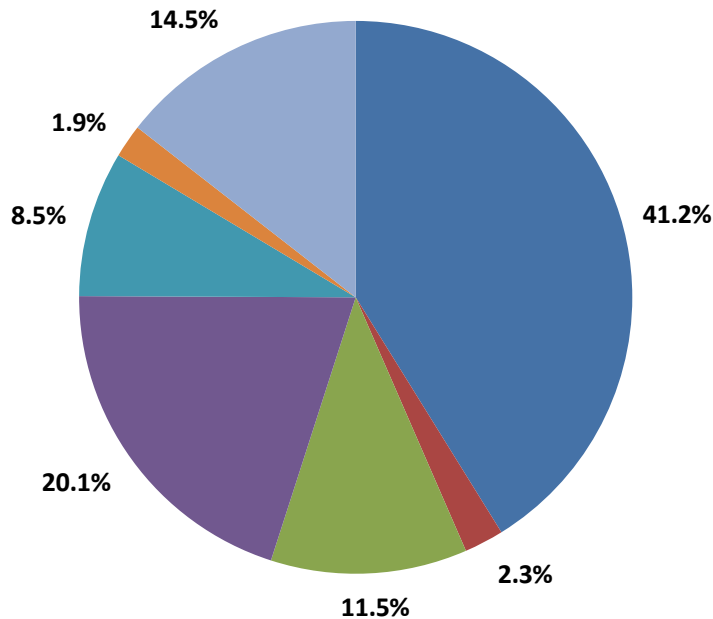


Source: LLI, total losses as reported by Lloyds List

NUMBER OF CLAIMS – BY TYPE OF CASUALTY

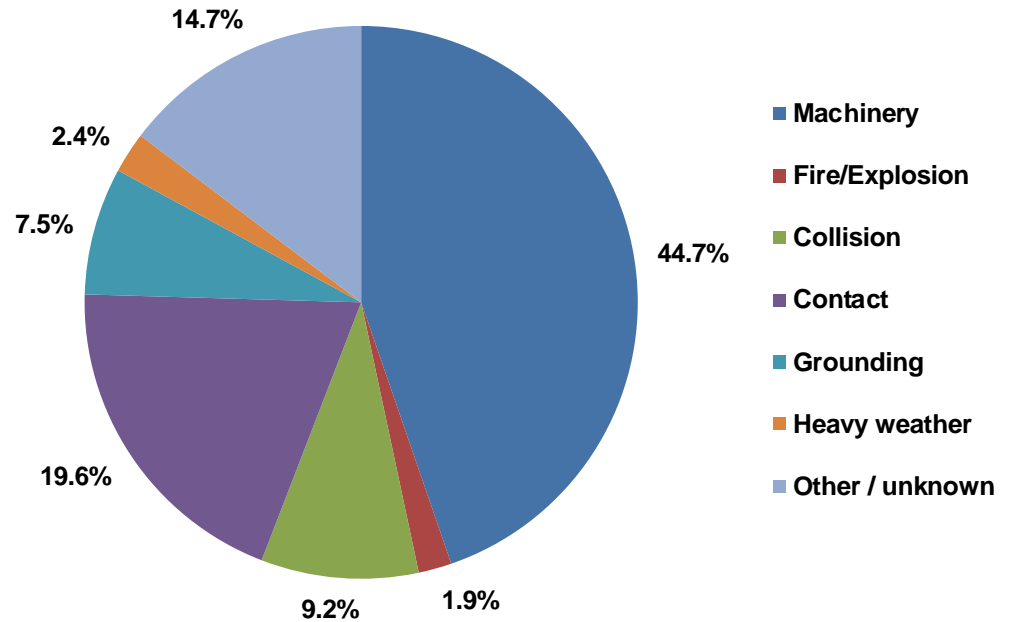
(CEFORS NOMIS CATEGORIES)

2013-2017



2013-2017: 17,208

2018

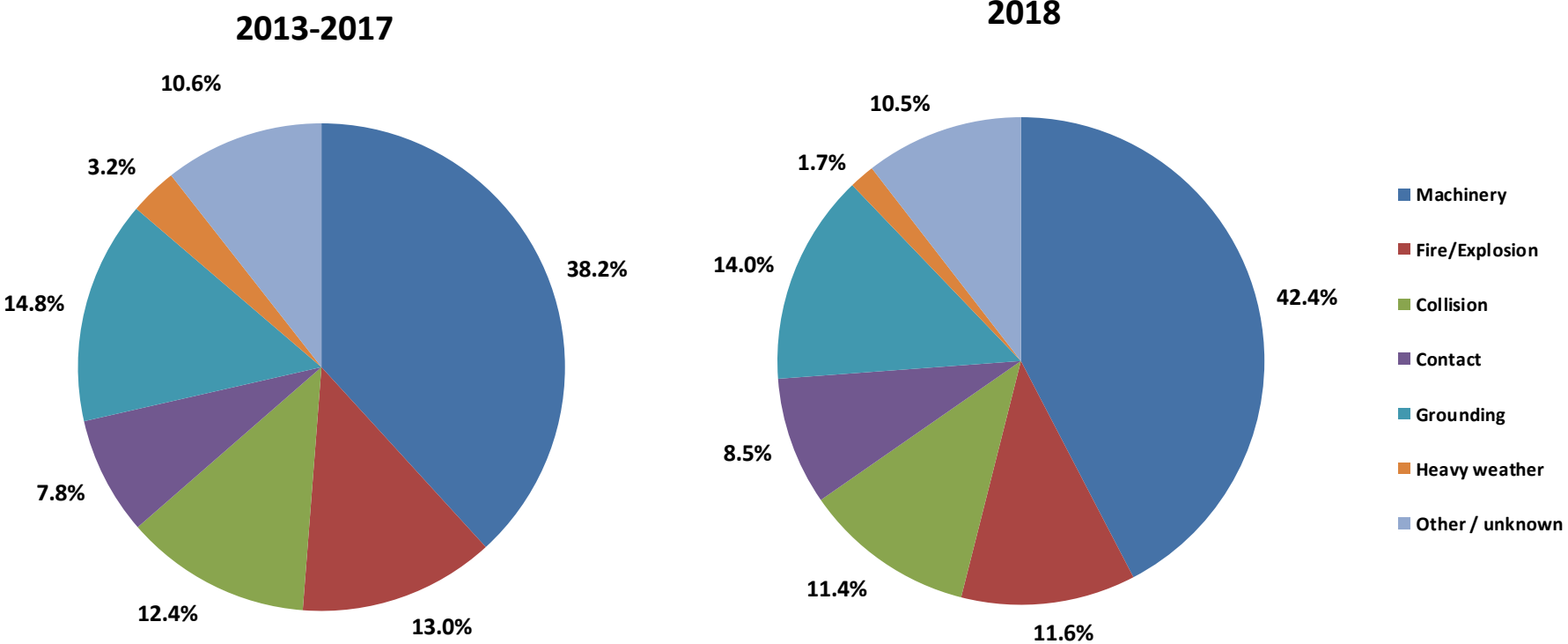


2018: 3,096

Total number of claims:

- Machinery
- Fire/Explosion
- Collision
- Contact
- Grounding
- Heavy weather
- Other / unknown

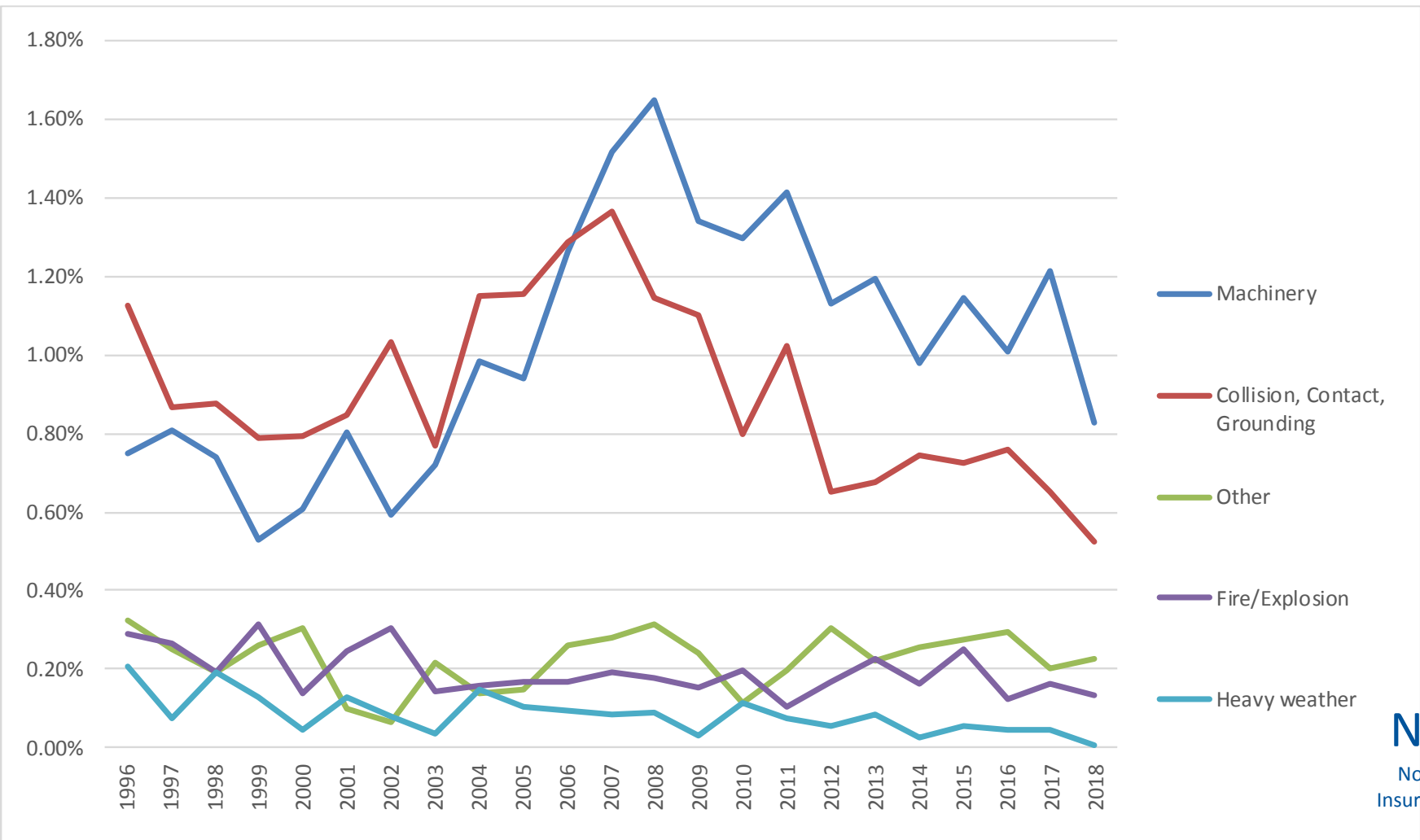
COST OF CLAIMS – BY TYPE OF CASUALTY



Total cost of claims in USD million:
 2013-2017: 4,710.9 2018: 734.5

FREQUENCY OF CLAIMS > USD 500,000

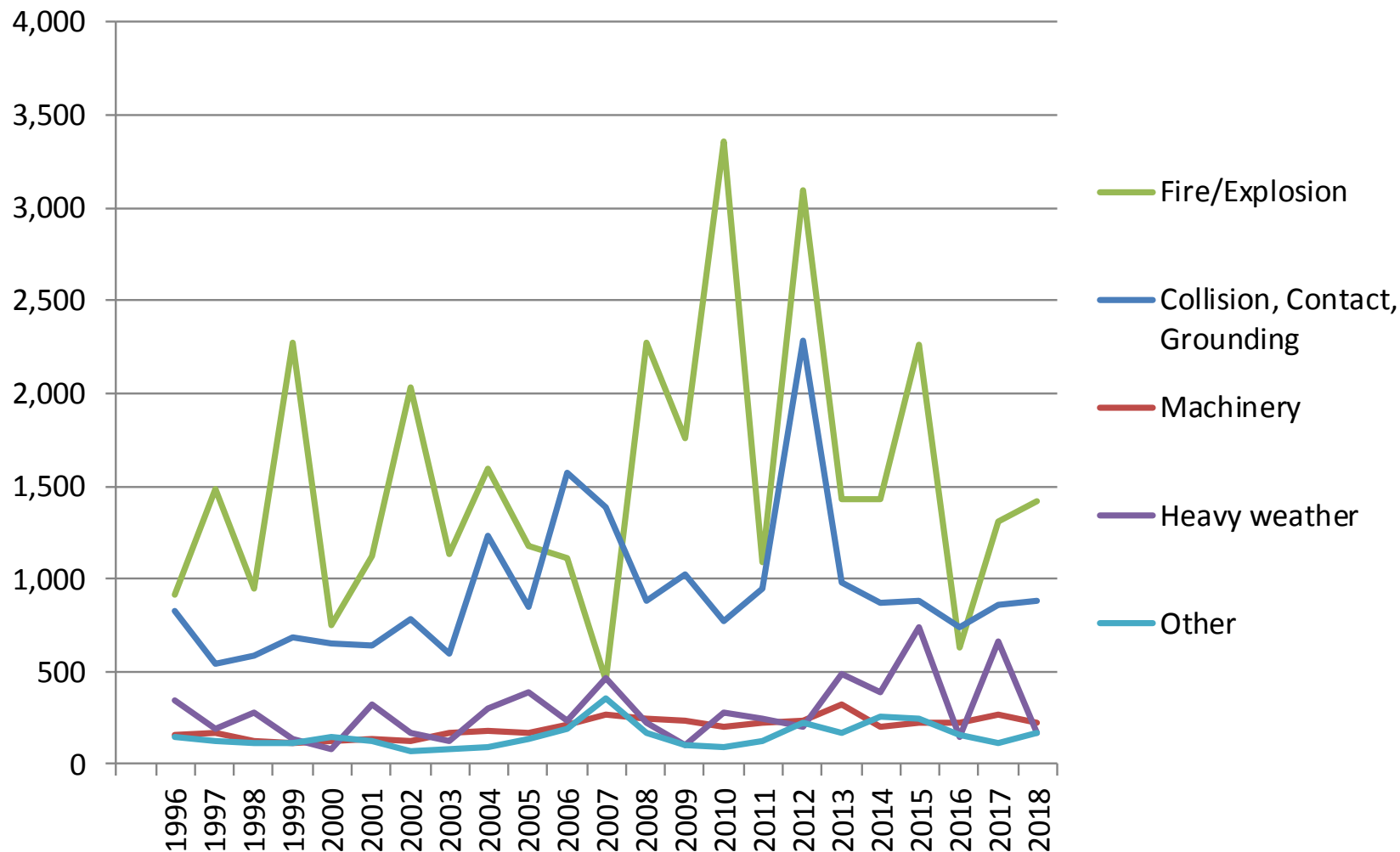
BACK TO PRE-BOOM LEVEL



AVERAGE CLAIM COST AS OF DEC 2018

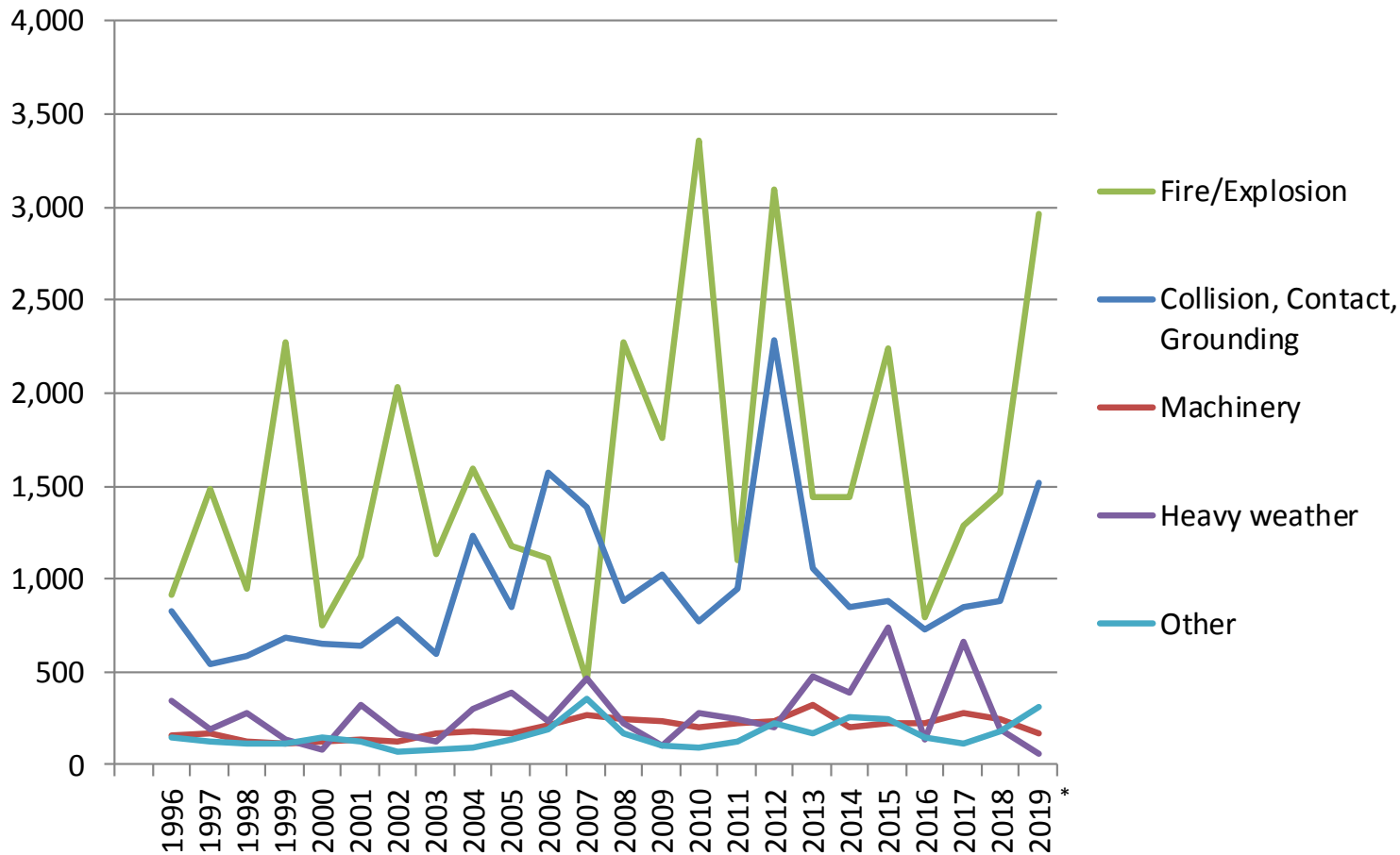
STRONG VOLATILITY OF FIRE/EXPLOSION COST

USD 1,000



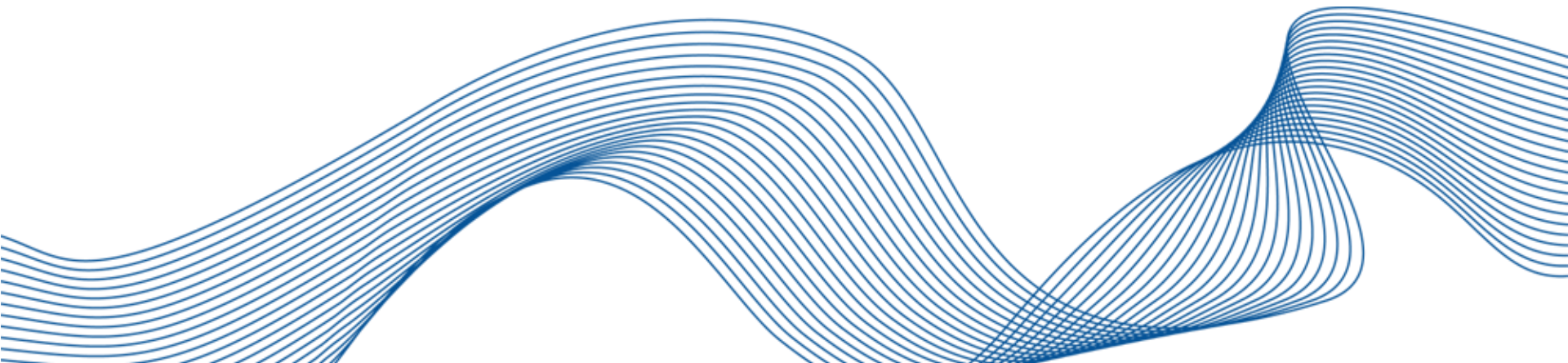
AVERAGE CLAIM COST AS OF MARCH 2019

1ST QUARTER 2019: NEW STRONG IMPACT ON COST BY SEVERE FIRE/EXPLOSION AND NAVIGATIONAL-RELATED CASUALTIES

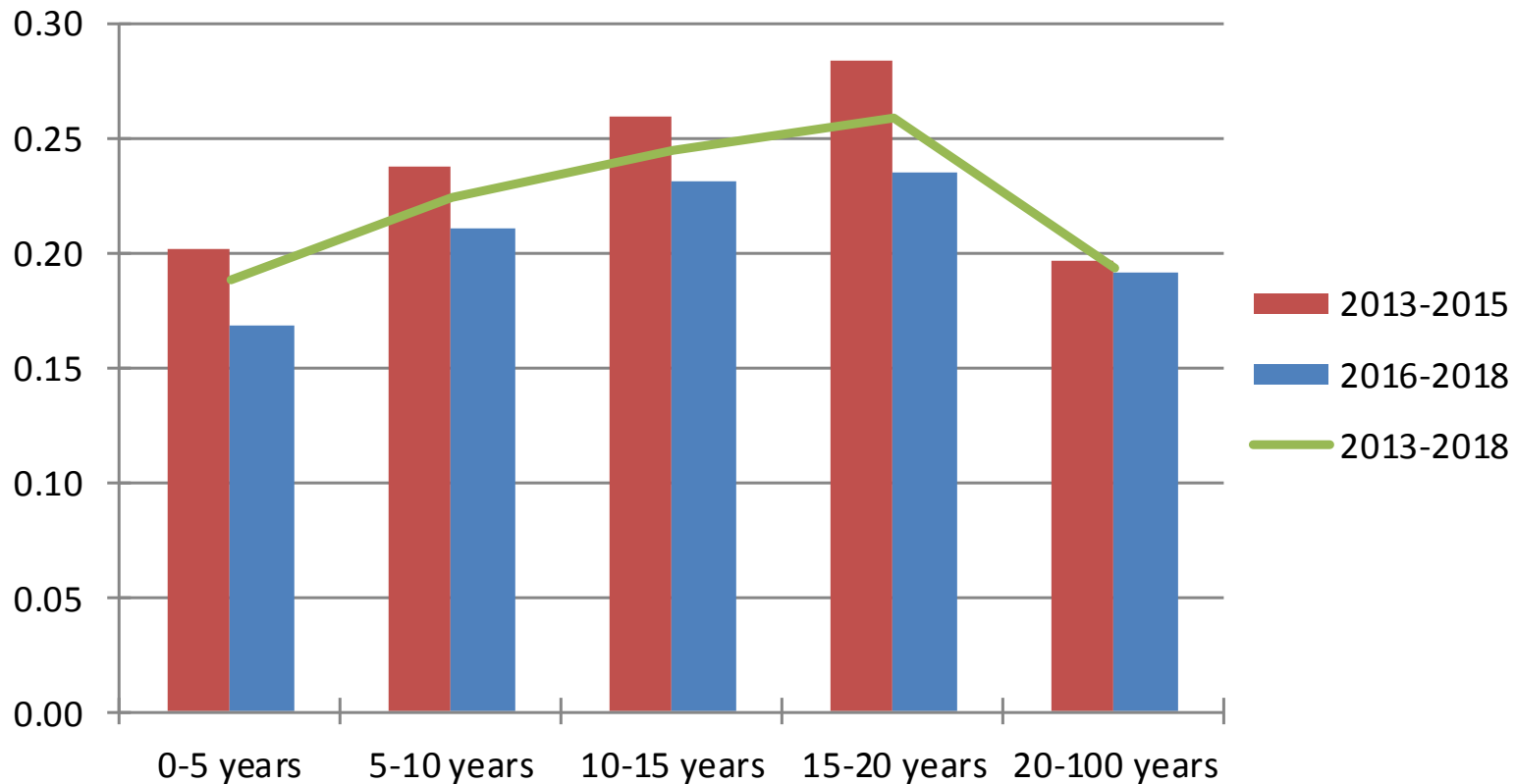


* 1st quarter figures only

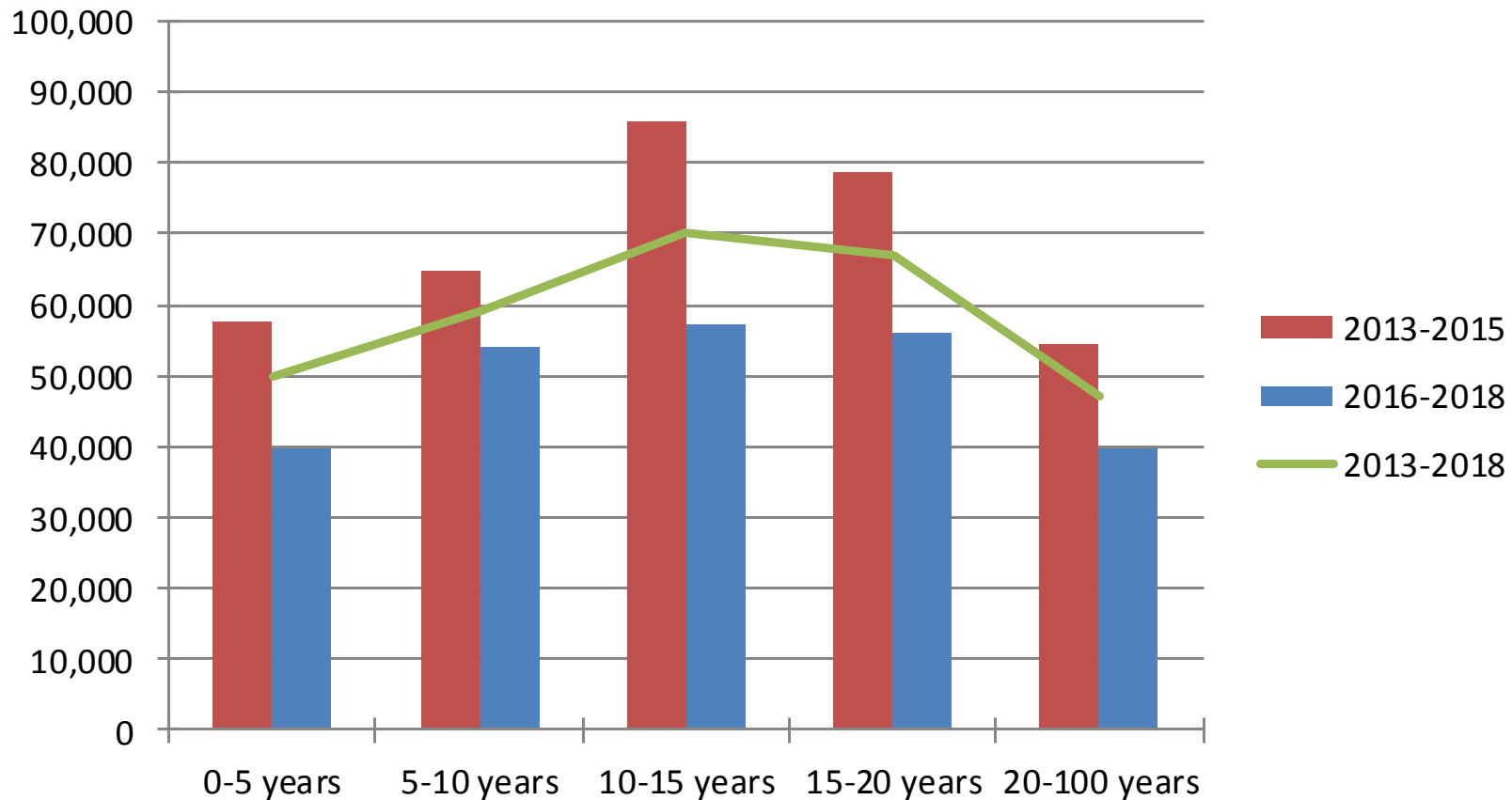
CLAIMS TRENDS BY AGE GROUP AND VESSEL TYPE



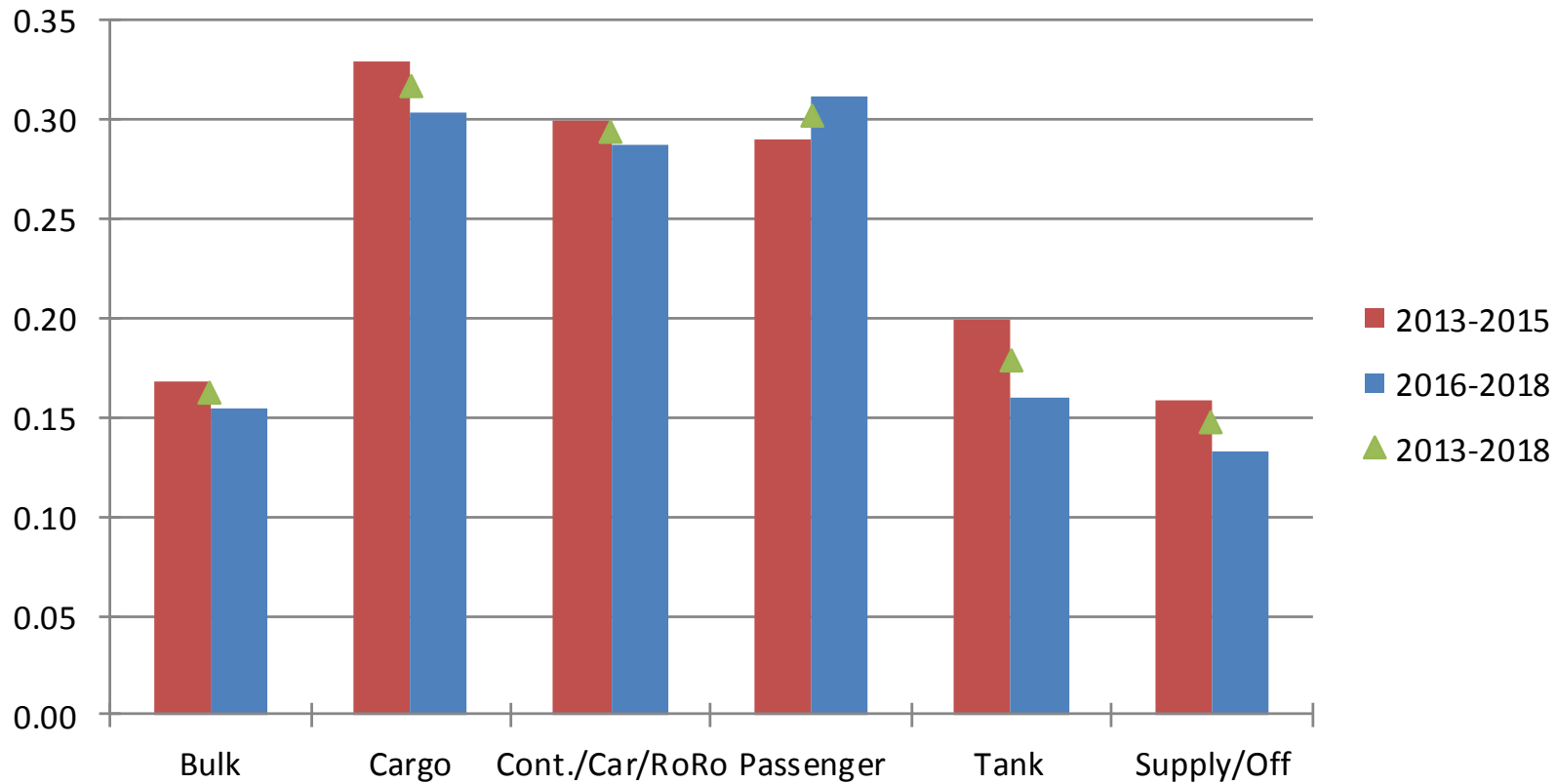
CLAIMS FREQUENCY – REDUCED ACROSS ALL AGE GROUPS



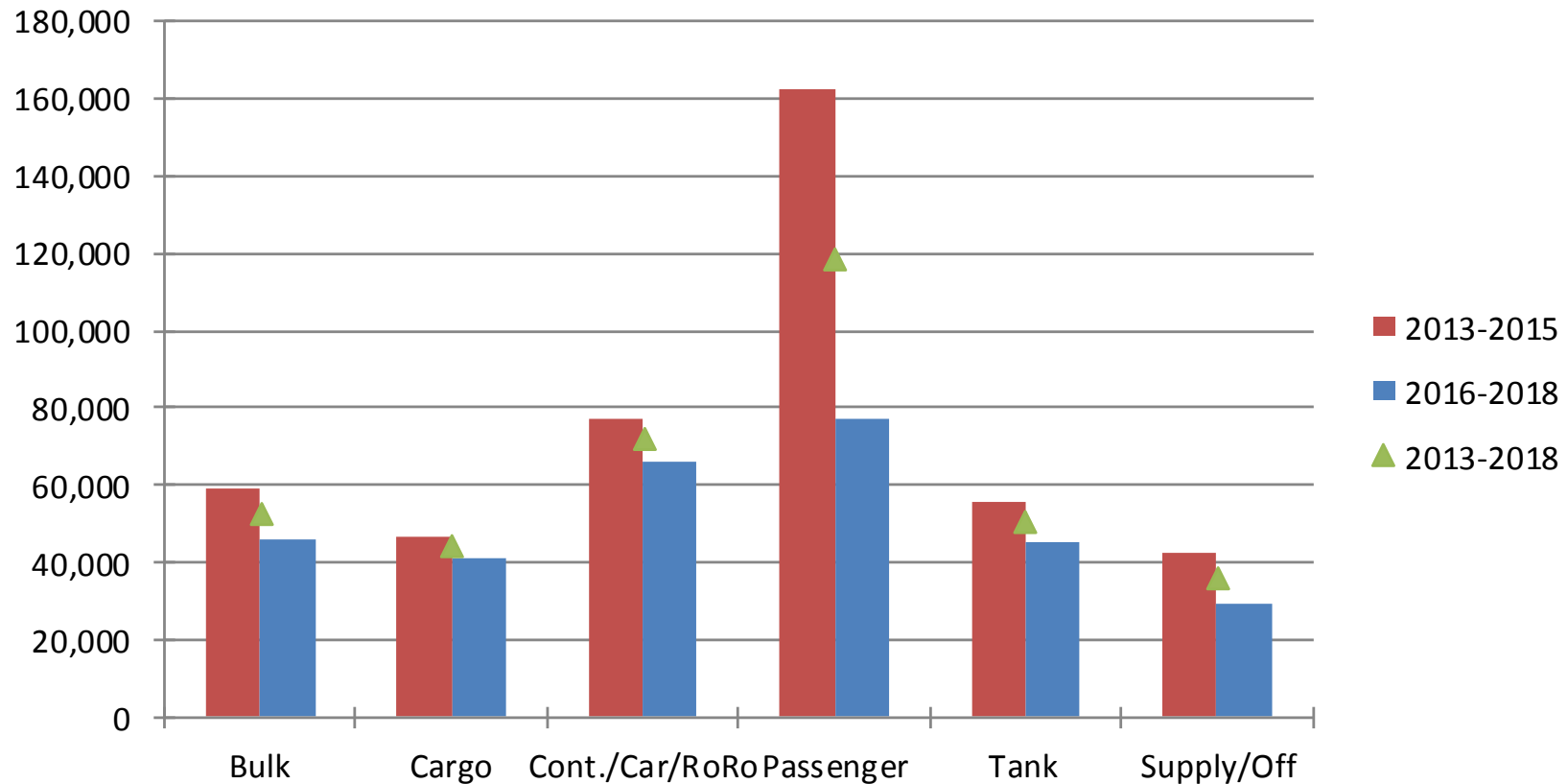
CLAIM COST PER VESSEL – REDUCED ACROSS ALL AGE GROUPS



CLAIMS FREQUENCY, BY VESSEL TYPE

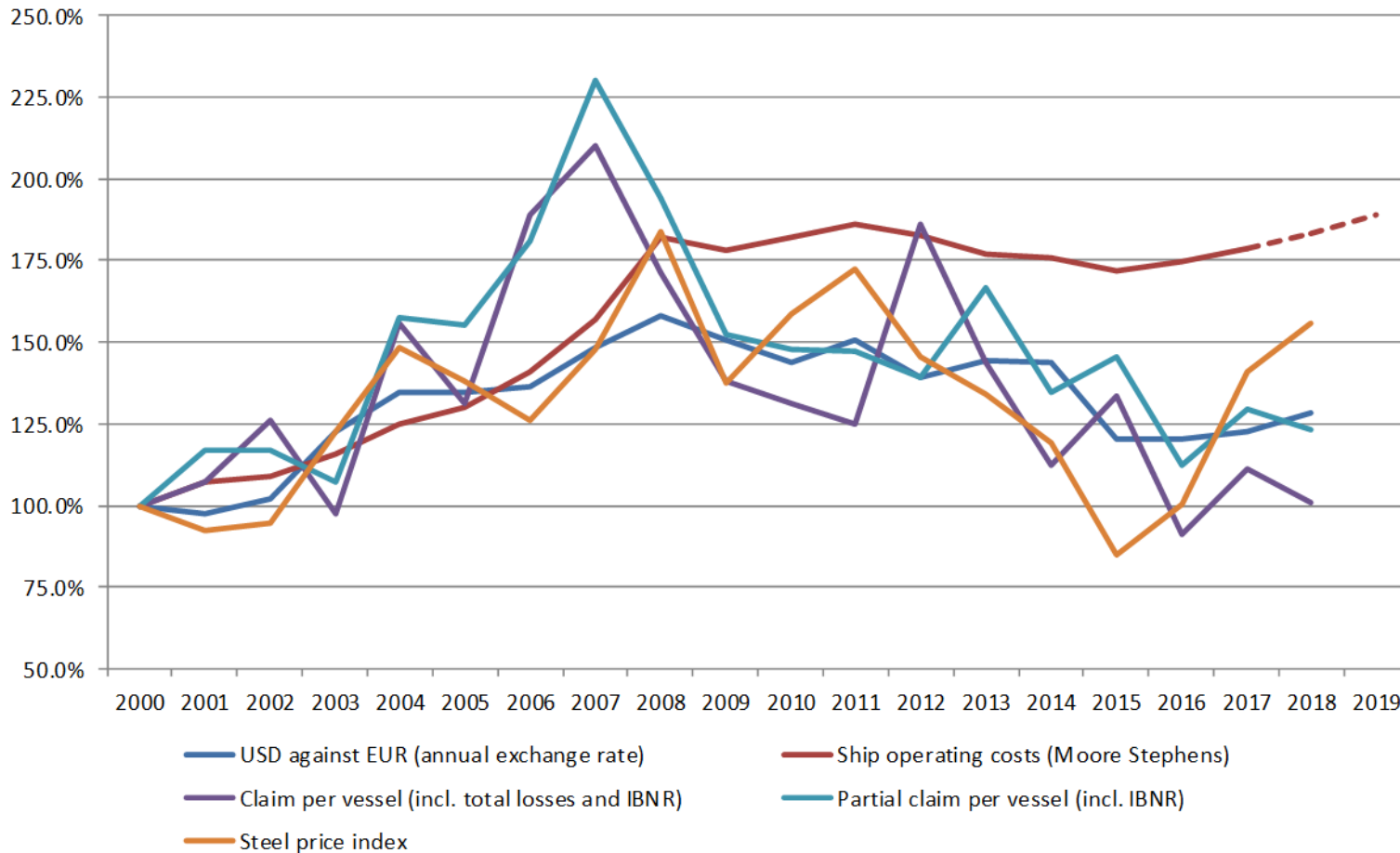


CLAIM COST PER VESSEL BY VESSEL TYPE



COST DRIVING FACTORS

Cost driving factors inflation index, 2000 = 100%



CASUALTY TRENDS – FREQUENCY

- **Total loss frequency**

- Long-term positive trend
- Stabilizing around the probably minimum achievable level.
- Result of increased focus on safety measures?

- **Overall claims frequency**

- Long-term positive trend
- Low volatility since 2012, stabilizing around 23%.

- **Many influencing factors**

- Vessel utilization (type of trade, overcapacity, maintenance, lay-ups)
- Younger & bigger vessels
- Change in insurer deductibles (higher deductibles = less claims reported)
- Exchange rates
(strong dollar may 'reduce' claims cost -> less claims exceed insurer deductibles)
- ...

CASUALTY TRENDS – REPAIR COST

- Down after financial crisis peak
- Stabilization at modest level in recent years.
- Reduced last 3 years over all age groups and nearly all vessel types.
- Various drivers (correlation with certain parameters)
 - Steel price
 - USD exchange rate
(Strong USD may have kept cost down, as repairs often paid in other currencies).
 - Labour cost
 - Maintenance routines
 - ...

MAJOR (= COSTLY) LOSSES

- **More expensive single claims** – increasing vessel sizes, more complex objects
- **Increasing Volatility** - strong impact in some years, little in others
- **Strong influence on the cost also in years with few major losses** – The 1% most expensive claims account for minimum 30% of the claims cost in any year.
- **Random occurrence** – Difficult to estimate major claims impact for a specific year
- **Fires on container vessels** are a concern.
- **1st quarter 2019 casualties demonstrate all of the above**

Terminology: ‘Serious’ casualties versus ‘major’ losses

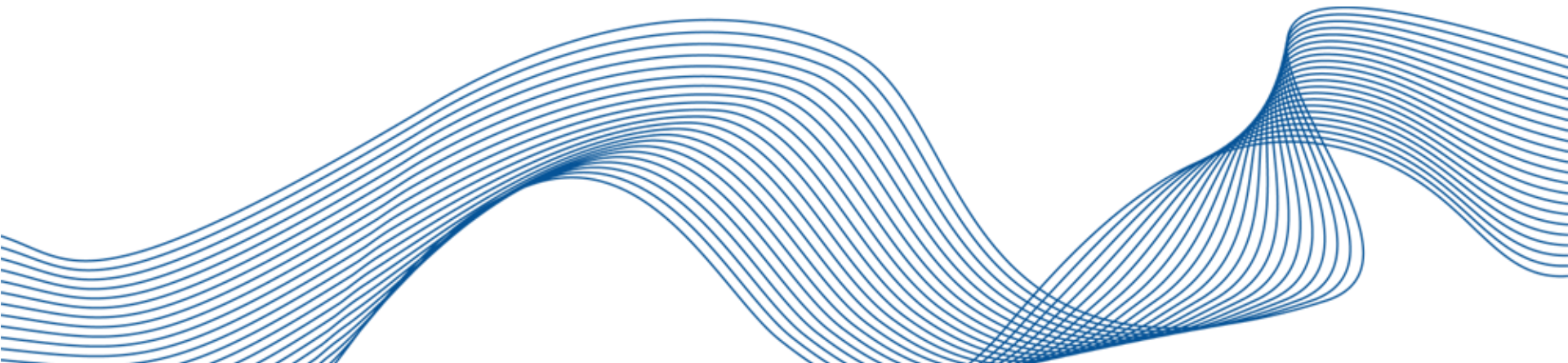
IMO, LLI etc. define casualty ‘seriousness’ related to the nature of the event.

Insurers are impacted by ‘major’ claims = extraordinary costly casualties.

The majority of ‘serious’ casualties are no ‘major’ claims in terms of cost. For details on the comparison, check

https://cefor.no/globalassets/documents/statistics/nomis/2017/2017-half-year-claims-trends_250817.pdf

DETENTIONS – INDICATOR OF FUTURE CLAIMS



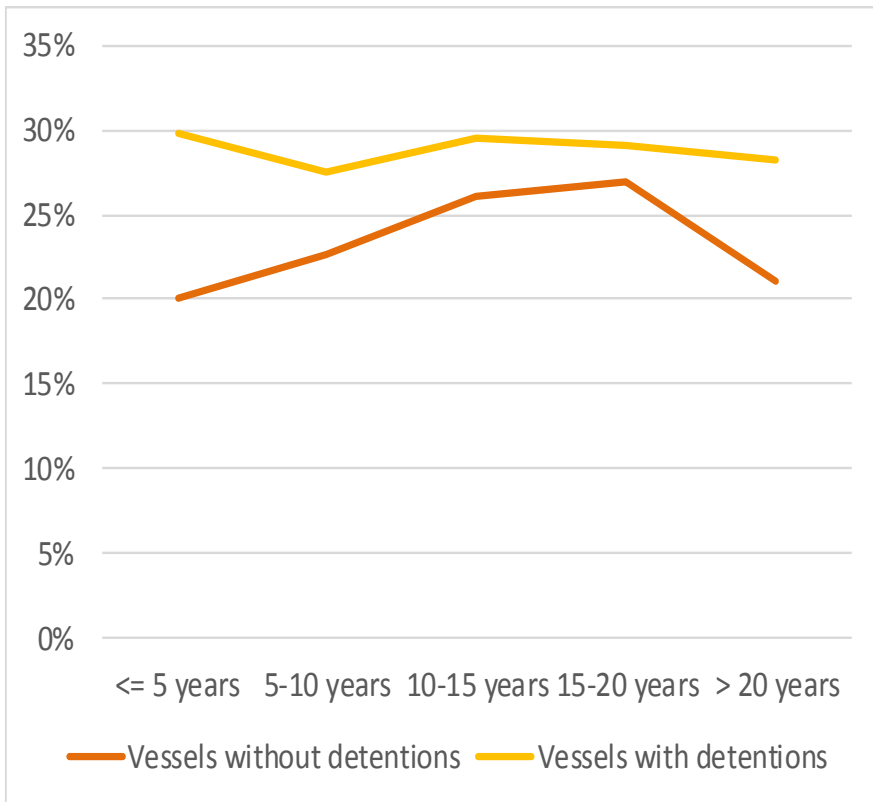
SCOPE/DESIGN OF DETENTION ANALYSIS

- **‘Vessels with detentions’** defined as:
Vessels with at least one detention in a 3-year period prior to the underwriting year, i.e. prior to the year of the insurance coverage to which the analyzed claims attach.
- **Scope of analysis / Test groups:**
 - Vessels with detentions against vessels without detentions in same period.
 - All vessels, and vessels < 10,000 gross ton

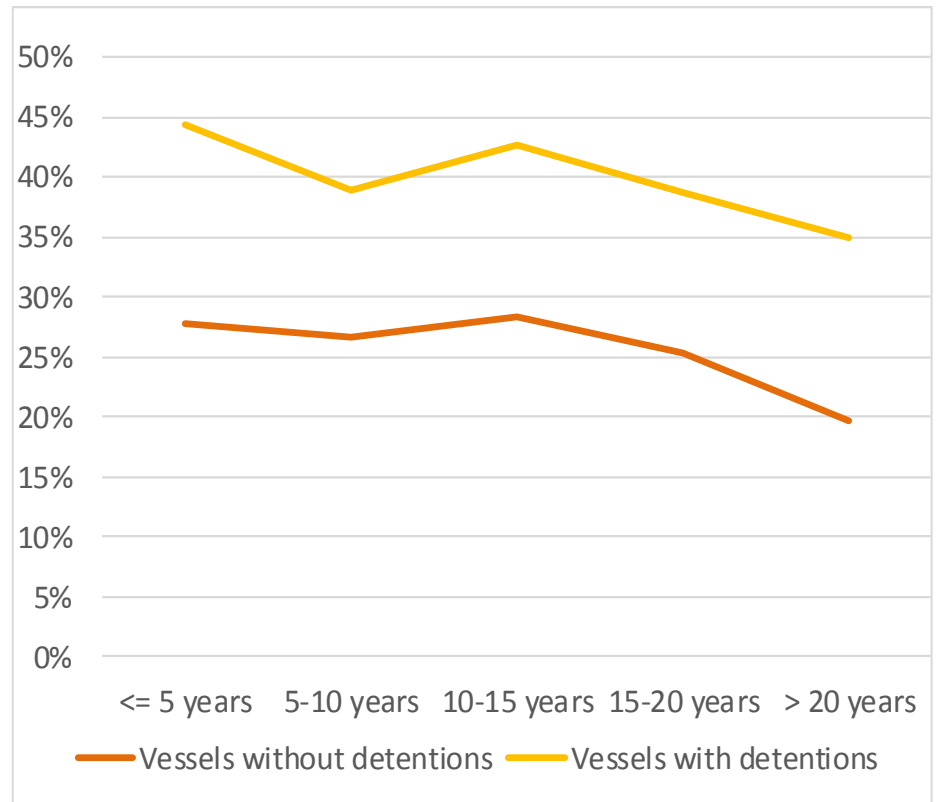
(Vessels < 10,000 gross ton are a more homogenous group. Smaller and older vessels are more prone to total losses, thus this group is of special interest when analysing the correlation between total losses and detentions)
- **Casualty trends compared:**
 - Claims frequency
 - Total loss frequency
 - Claim cost per vessel

CLAIMS FREQUENCY – HIGHER FOR ALL VESSELS WITH DETENTIONS

Vessels all sizes

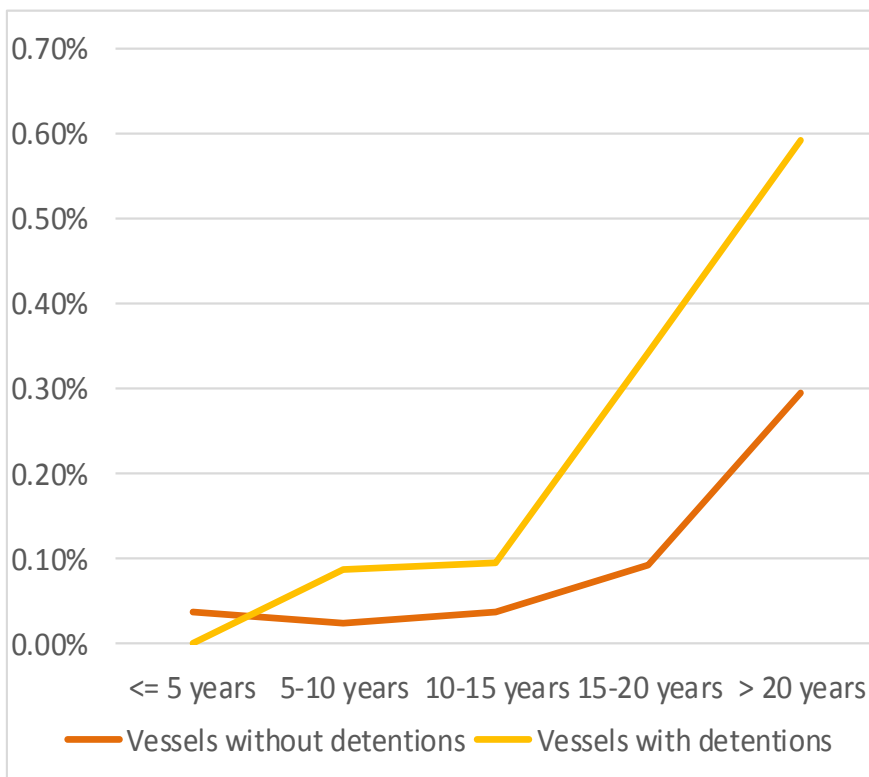


Vessels < 10,000 gross ton

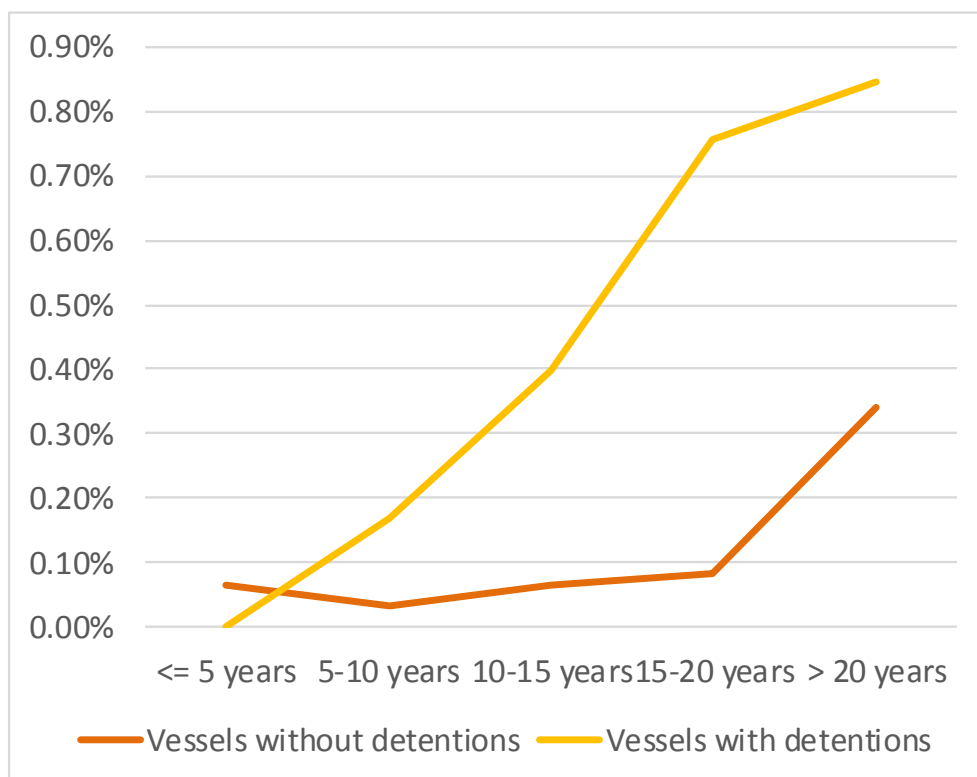


TOTAL LOSS FREQUENCY – HIGHER FOR VESSELS WITH DETENTIONS EXCEPT YOUNGEST

Vessels all sizes

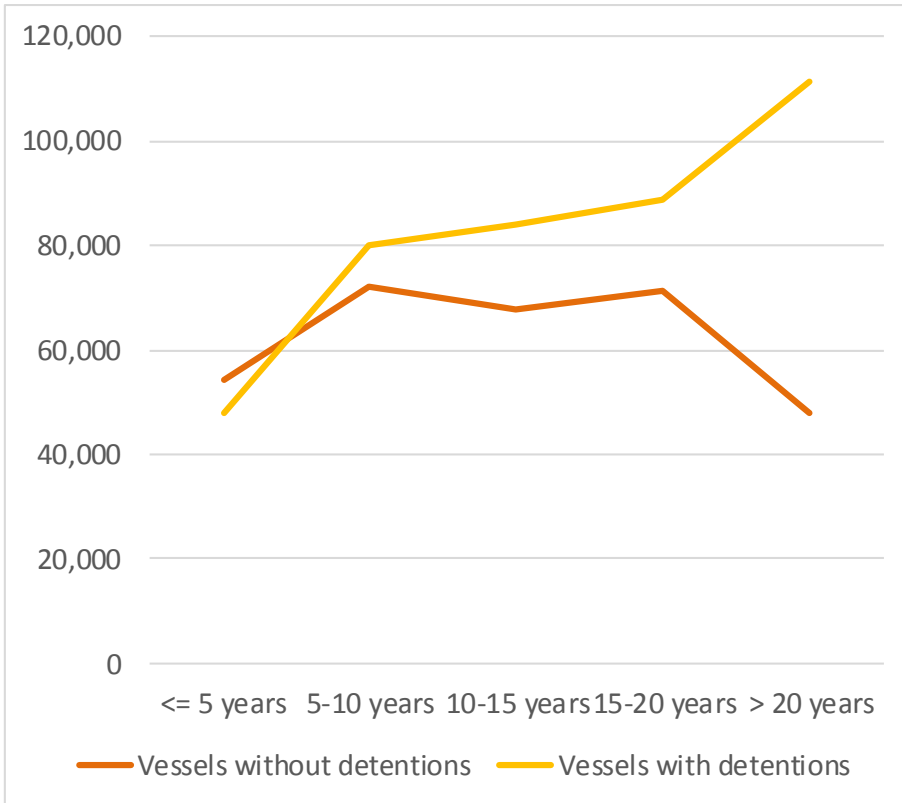


Vessels < 10,000 gross ton

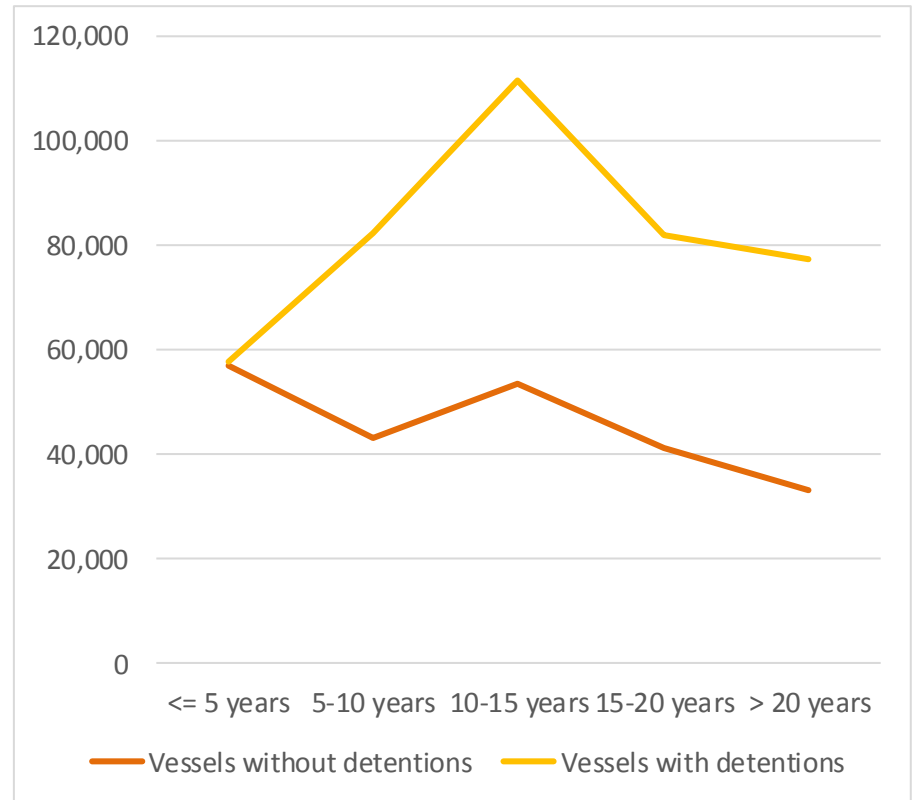


CLAIM COST PER VESSEL (USD) – HIGHER FOR VESSELS WITH DETENTIONS EXCEPT YOUNGEST

Vessels all sizes



Vessels < 10,000 gross ton

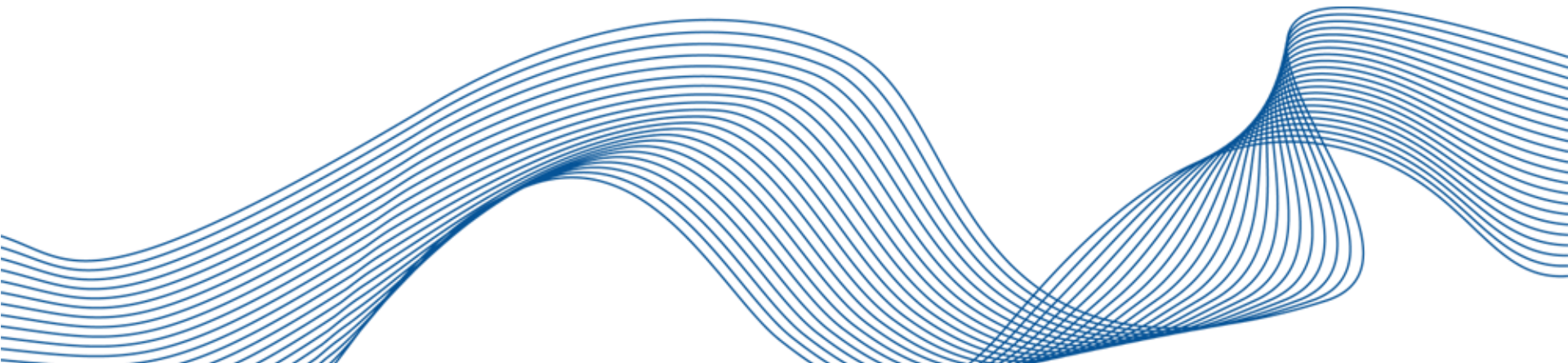


Source: Cefor Annual Report 2018

DETENTIONS – INDICATOR OF FUTURE CASUALTIES

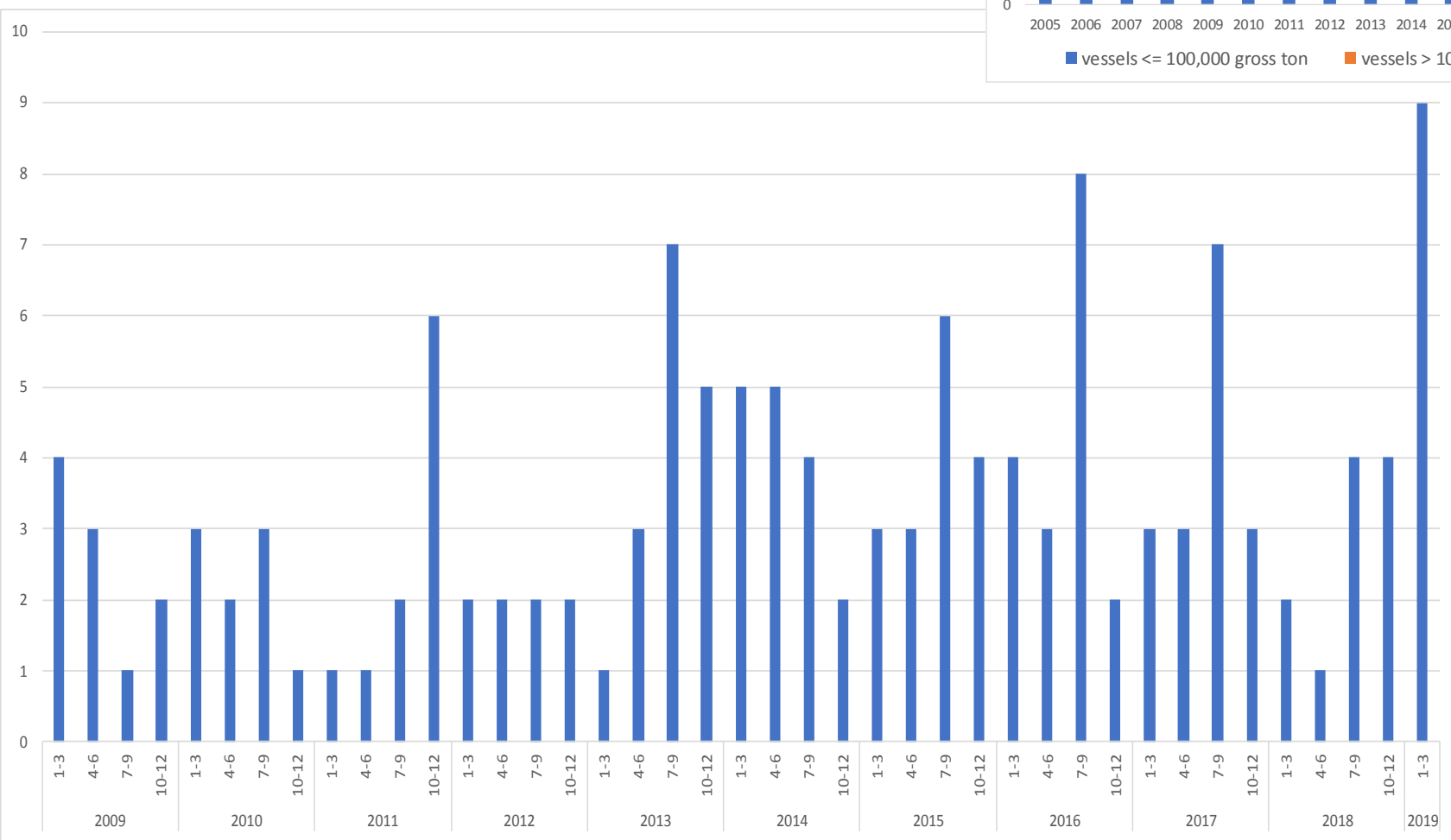
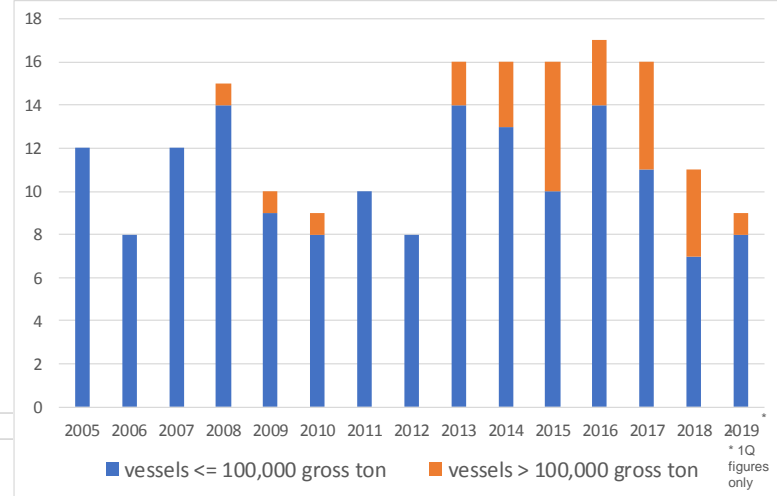
- **Claims frequency**
 - was generally higher for vessels across all age groups.
- **Total loss frequency**
 - Higher for vessels with detentions except the youngest vessels
 - The gap in the total loss frequency widens with age
 - Strong increase already from 5 years for vessels with detentions. Vessels without detentions only show a substantial increase in the total loss frequency after 15 (20) years.
 - Vessels younger than 5 years become seldom total losses.
 - When checking the reason for detentions (Equasis), these clearly indicated a causal connection with the type of total loss incurred later (i.e. not only an incidental statistical correlation).
- **Claim cost**
 - Generally higher for vessels with detentions except the youngest.

FIRES ON CONTAINER VESSELS



CONTAINER VESSEL FIRES – NO. OF OCCURRENCES IN NOMIS DATABASE

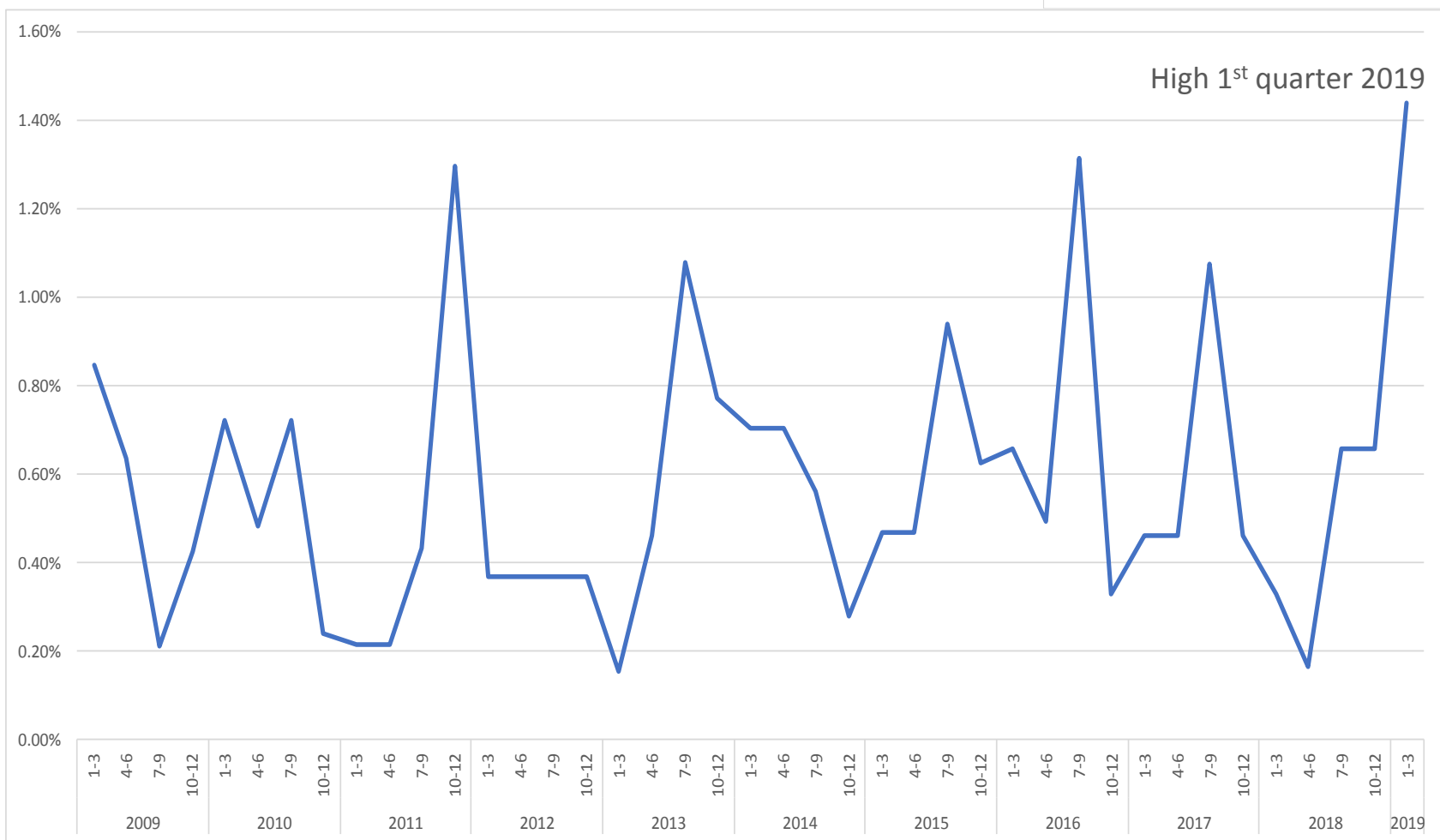
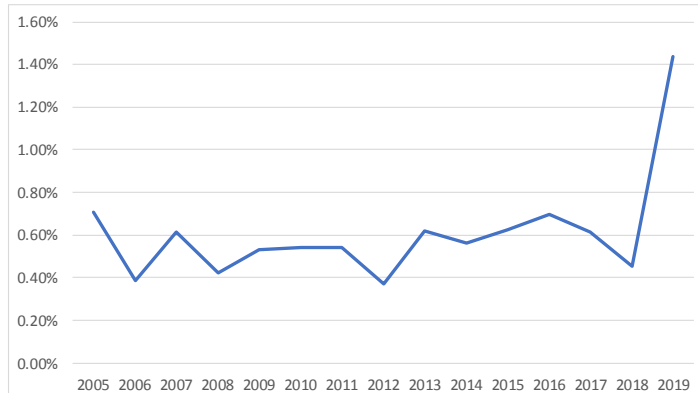
Increasing Number of fires on large container vessels ->



NoMIS
Nordic Marine
Insurance Statistics



CONTAINER VESSEL FIRES – CLAIMS FREQUENCY



NoMIS
Nordic Marine
Insurance Statistics



ISSUES TO MONITOR



High-value risks

Oil price, fuel quality

Changes in regulation (liabilities)

Fire on RoRo & Container vessels



Arctic risks

New technology

Internet of things/complex technologies

Navigation

Human factor/
Qualification

Climate change

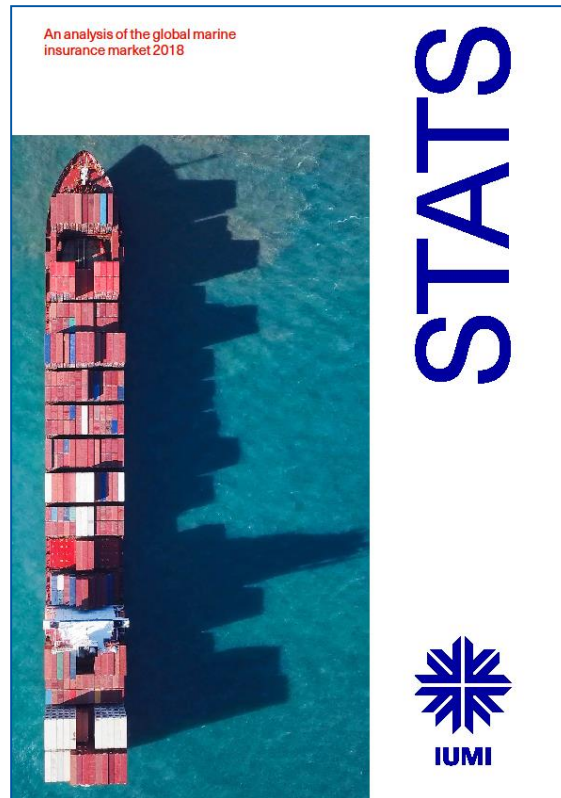
Value accumulation

Cyber risk



MSC Safety discussions!

NEW IUMI STATS REPORT 2018 (PUBLIC)



IUMI Statistics: <https://iumi.com/statistics>

OTHER IUMI REPORTS 2017/18

Conference publications:



and:

- Cargo, Hull and Energy Fact Sheets
- Hull and Cargo inflation indices
- Data downloads

Spring statistics on Cargo, Hull, Offshore energy:

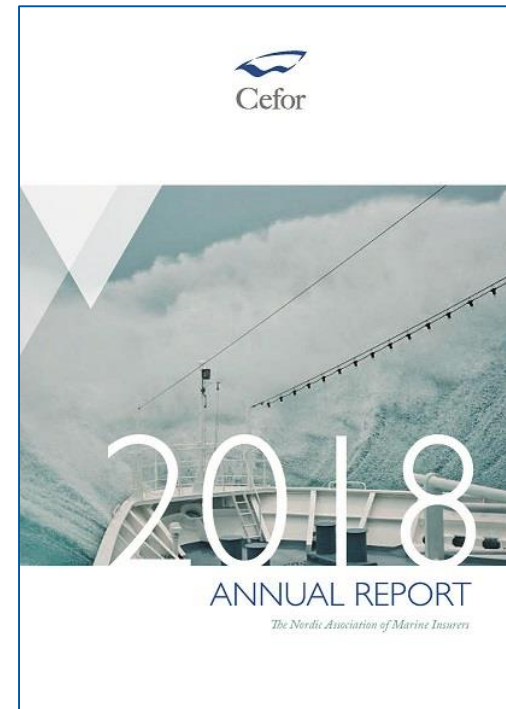


IUMI Statistics: <https://iumi.com/statistics>

CEFOR PUBLICATIONS 2019

NORDIC MARINE INSURANCE STATISTICS (NOMIS)

Published 11 April 2019



+ half-year trend updates

Cefor NoMIS Statistics at <http://cefor.no/Statistics/NOMIS/>



THANK YOU.

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