



2018

HULL TRENDS as at 30 June 2018

The Nordic Association of Marine Insurers

Executive Summary

Claims and Portfolio trends per 30 June 2018

- **Total losses**

The frequency of total losses reached thus far in 2018 its lowest level since 1996. Although it is too early to conclude for the whole year 2018, the general trend over the last eight years has been a stabilization of the total loss frequency at low levels, with some oscillation between 0.05% and 0.10%. This stabilization followed a continuous reduction towards the current level in the years prior to 2010.
- **Major losses**

The impact of major losses continues to be low. In the first half of 2018, three losses exceeding USD 10 million were reported. This compares to five such losses in the first 6 months of 2017, and two in the first six months of 2016. Since 2015, no losses have been reported exceeding USD 30 million. The largest loss since 2015 occurred in 2017 and had a cost of USD 26 million, the second largest in the 1st quarter of 2018 at a cost of USD 25 million.
- **Claim cost per vessel, excluding total losses**

Per June, the 2018 claim cost per vessel, excluding total losses, was similar as in 2016 and 2017. 2017 showed a slightly higher cost mainly due to the occurrence of two major losses exceeding USD 20 million. Nevertheless, the claim cost per vessel in all three years reflects a lower level than the preceding ten years.
- **Claims frequency**

The overall claims frequency has been very stable around 22% since 2012, and this positive trend continues into 2018.
- **Insured values**

Renewals in 2018 have thus far shown less reduction in the insured values than renewals in the previous years. The drop in 2018 was only 2.5%, compared to an average drop in values of 5.7% in 2017, 7.5% in 2016 and 9.3% in 2015. The improvement is influenced by a recovery of the bulker market from 2017, followed by some recovery in the supply/offshore market in 2018.
The average value of the whole portfolio is influenced by the continued inflow of high-value newbuilt vessels, but recent years showed an increasing mismatch in the evolution of the average vessel sizes as compared to the average insured values.
- **Portfolio**

Vessels with IMO-number: 274,325 vessel years since 1985 (2017: 16,333 vessels, 2018: 10,911 vessels registered as of 30 June). NoMIS statistics reflect roughly 26% of the total world fleet of vessels above 1,000 gross tons, and 45% of vessels above 10,000 gross ton.

1. Claim cost per vessel

Claim cost divided by number of insured vessels

Low major loss impact since 2016

The number and impact of major and total losses has remained low since 2016. This trend continues into the first half of 2018. As of 30 June, three losses exceeding USD 10 million were reported, the largest of which was USD 25 million. During the whole year 2017, eight claims exceeding USD 10 million were registered (two of these exceeding USD 20 million), compared to fourteen in 2016. From January 2016 to June 2018, no losses exceeding USD 30 million have been reported.

Repair cost stable at low level

Excluding total losses, the claim cost per vessel has stayed at its lowest level in more than ten years from 2016 to mid-2018, although the 2017 cost was slightly higher than in 2016 and 2018 (graph 1). While it is too early to conclude for the full year 2018, the first half of the year saw no changes to the trend. With the cost per vessel of claims below USD 5 million being quite stable since 2013 (graph 2), variations in the overall cost per vessel were mainly caused by the (non-)occurrence of claims exceeding USD 10 million.

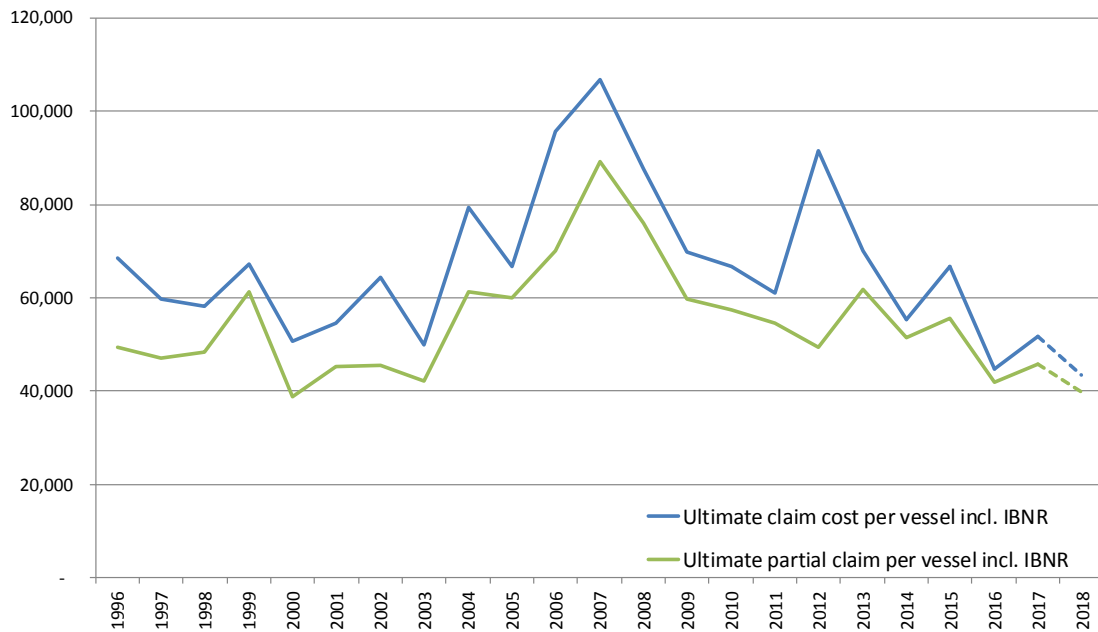
Exchange rate impact

Compared to the Euro and other currencies, the US dollar gained much strength between 2013 and 2016. As repair cost is influenced by other currencies than USD, a strong US dollar will, all else being equal, imply a reduced claim cost measured in USD. From 2017, European and other currencies have strengthened somewhat again compared to the USD, but so far, this small increase does not seem to have had an impact on the 2017 and 2018 claims cost (graph 3).

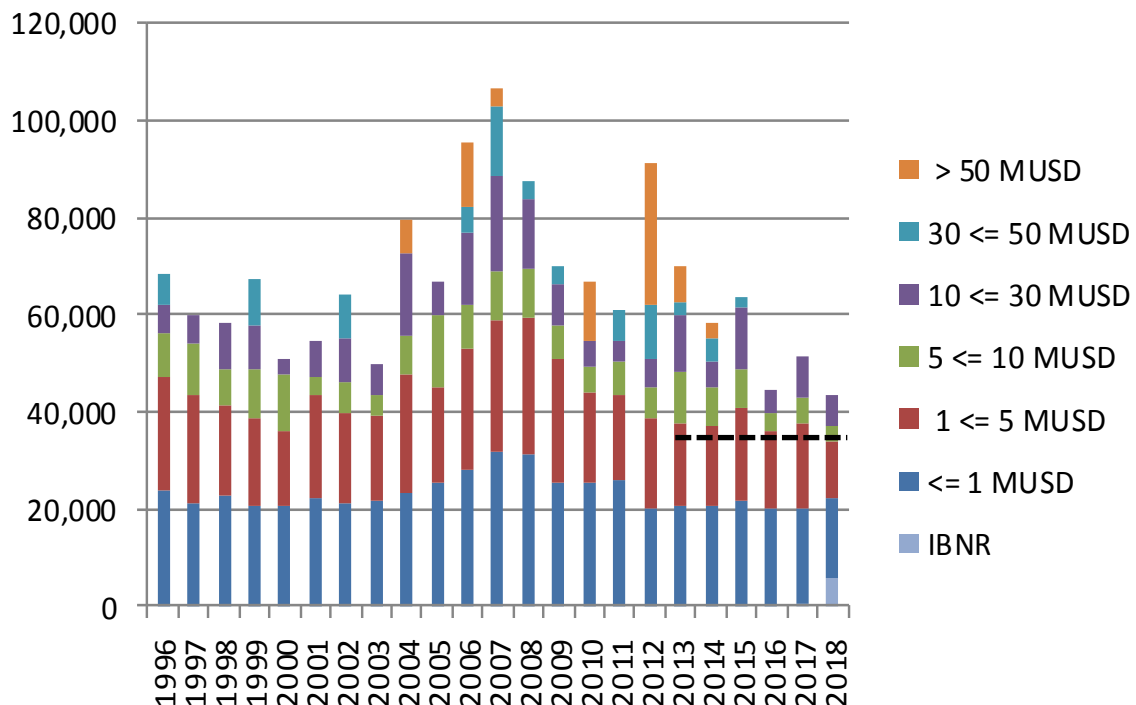
Minimal impact from hurricanes

Analysing claims in the NoMIS database, it can be concluded that devastating category 4+ hurricanes in 2017 like Harvey, Irma and Maria barely had any impact on commercial hull & machinery policies. This indicates that shipowners handled the hurricanes with a high degree of care to avoid the potential damage caused by these extreme events. It should however be noted that yachts and all types of pleasure boats are not within the scope of the NoMIS reporting.

1: Ultimate partial and total claim cost per vessel (USD), by date of loss¹

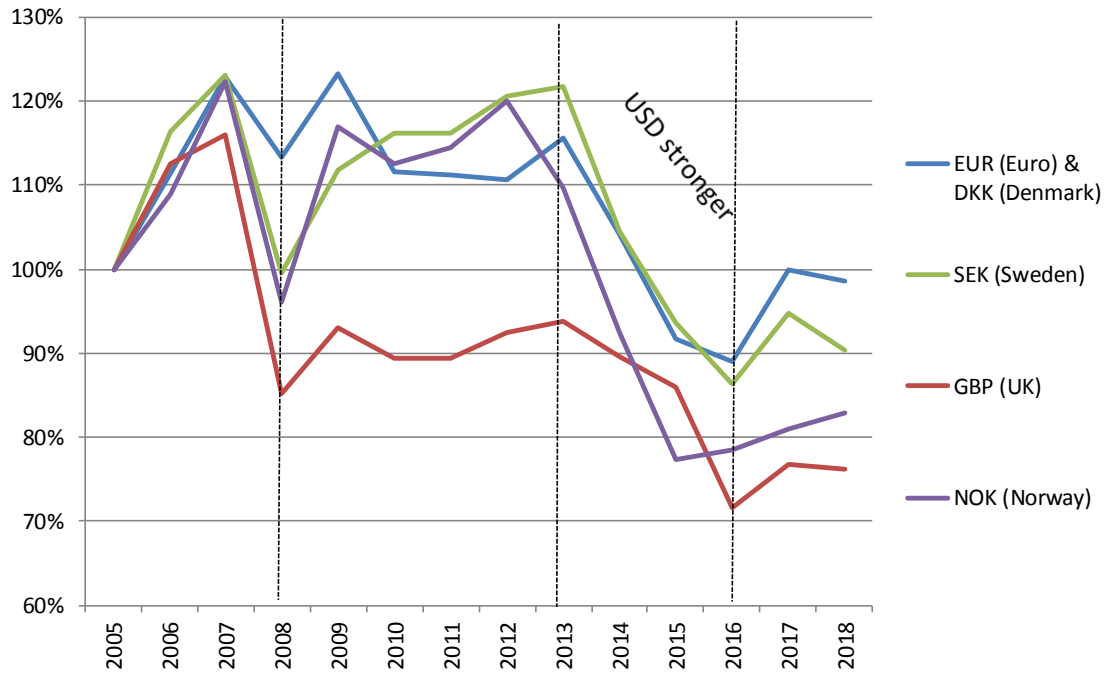


2: Claim per vessel by intervals of claim cost, by date of loss (USD)

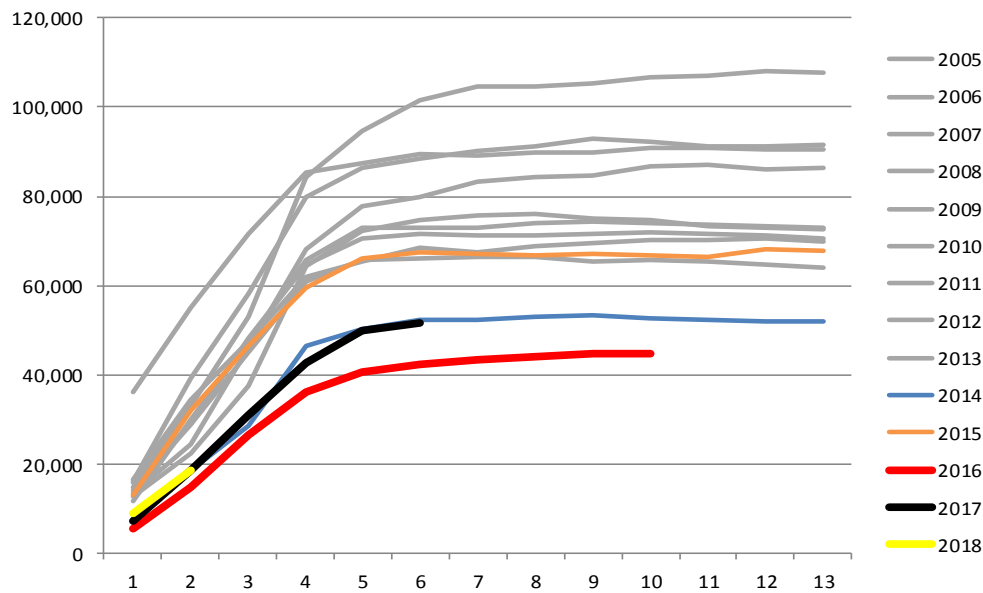


¹ IBNR = Incurred But Not Reported = reserve for claims adjustment and registration backlog.

3: Exchange rate Euro and Nordic currencies against USD as of June 2018

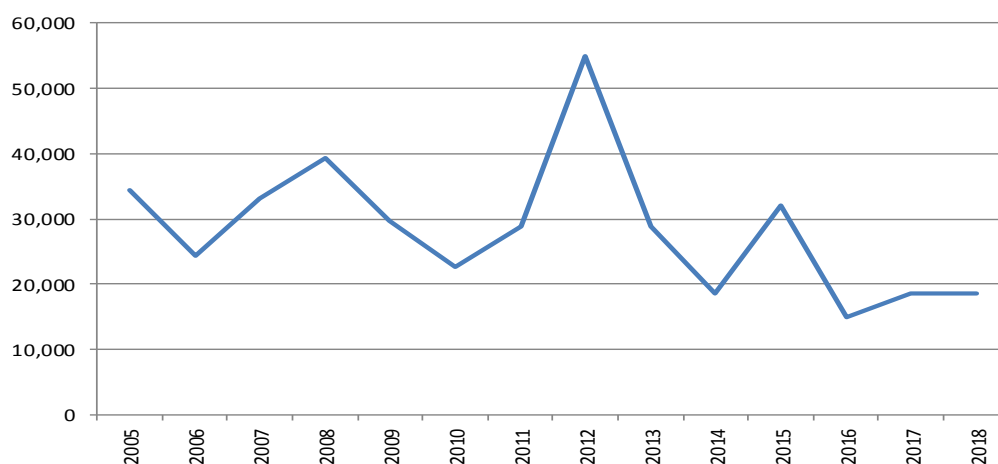


4: Claim per vessel (USD) – accumulated quarterly development², by date of loss



The quarter ladder statistics compile the accumulated development of claims originating from a certain accident year³ by quarter. This makes it possible to directly compare the development of each accident year as of each quarter. These statistics show that the accident years 2016 to 2018 all started at a similarly low level. 2016 turned out to produce the lowest claim cost per vessel ever. 2017 was impacted in by the occurrence of two major claims exceeding USD 20 million, leading to some deterioration of the ultimate claim cost per vessel. 2018 again starts at a low level similar to 2017, despite being impacted by one major loss incurred in the 1st quarter of 2018.

5: Claim per vessel (USD) as of 2nd quarter of each year², by date of loss



² In graphs 4 and 5 the annual exposure is used, i.e. the total number of vessels expected to be underwritten in the respective year. Therefore, the claim cost per vessel by the end of the 2nd quarter is half as high as in the other graphs that visualize the expected ultimate results per year.

³ Accident year, or 'date of loss perspective' = Claims are grouped by the year in which the accident occurred (as opposed to grouping claims by the underwriting year, i.e. the inception year of the insurance coverage).

2. Claims frequency

No. of claims divided by the number of insured vessels

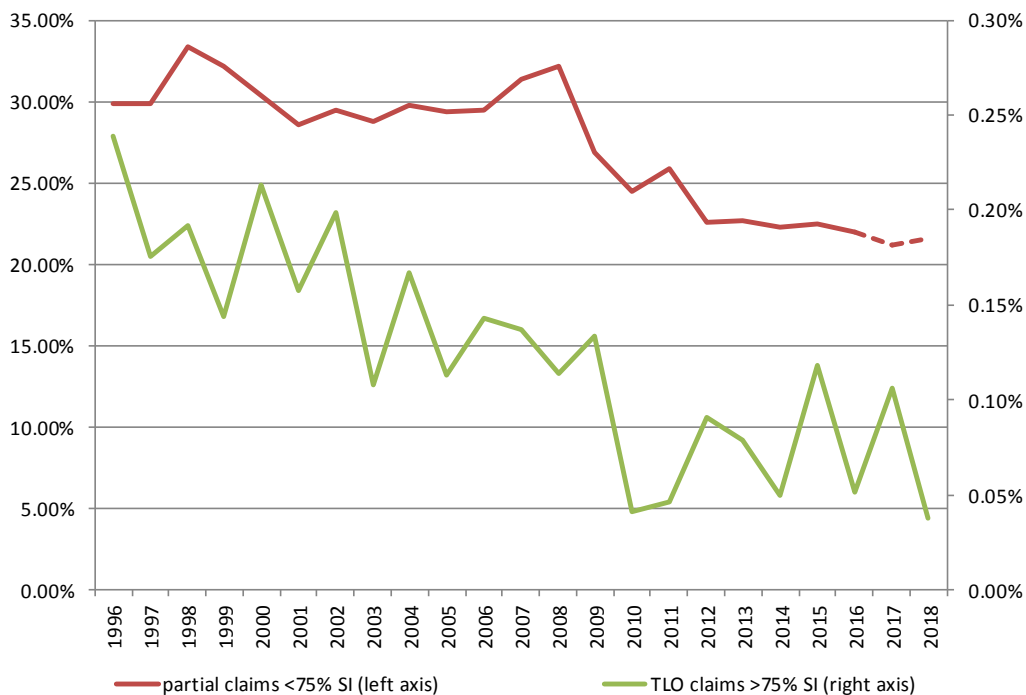
Claims frequency stays stable at low level

Based on the number of claims reported in the first six months, the claims frequency is expected to continue its overall downward trend also in 2018.

The long-term positive trend for total losses came to a halt in 2010 and has since fluctuated at a low level somewhere between 0.05% and 0.10% (graph 6). In the first half of 2018, the total loss frequency reached a minimum again, but after only half a year it is too early to conclude on how the 2018 total loss frequency will develop towards the end of the year. With a starting point of below 0.05% in the first six months of the year, it seems however improbable that the total loss frequency will exceed the recent year's upper bound of 0.1%.

One needs to keep in mind that several factors influence the claims frequency. On the one hand actual improvements such as better loss prevention play an important role. On the other hand, the claims frequency also tends to be lower during periods of reduced vessel activity such as was the case in recent years, especially in the supply/offshore sector. From the insurance perspective also deductibles play a role, with claims below the deductible usually not being reported to insurers.

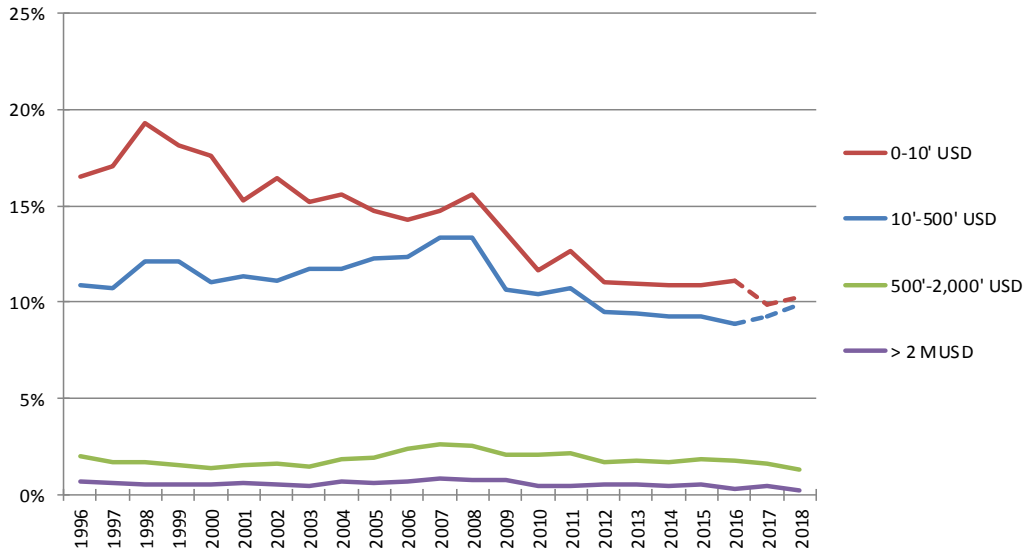
6: Claims frequency, by date of loss



MAJOR CLAIMS FREQUENCY

The risk exposure continues to be high due to the inflow of high-value vessels, and with the occurrence of major losses being often due to special circumstances rather than rationally identifiable causes alone.

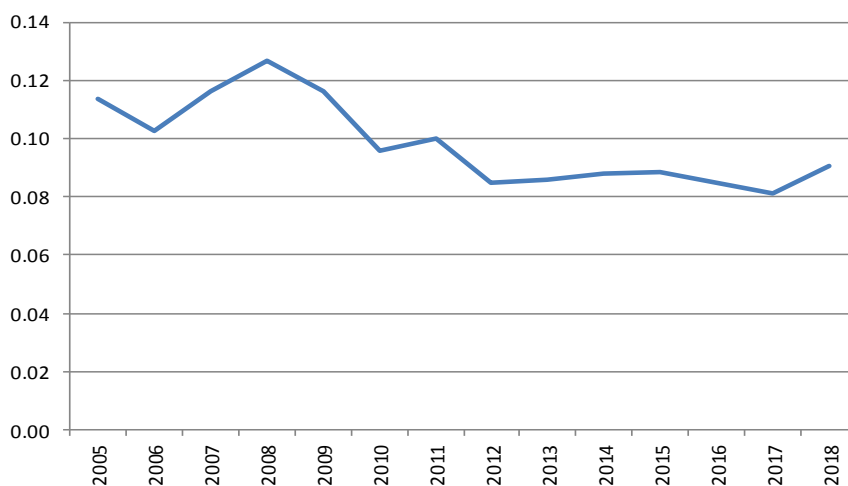
7: Claims frequency – by intervals of claim cost, by date of loss



Quarterly ladder statistics

The quarterly ladder statistics show that the claims frequency as registered per 2nd quarter of each year has been quite stable since 2012. There is some increase in the first half of 2018, which may rather reflect a normalization of the frequency, following a record-low frequency in 2017.

8: Claims frequency as reported as of 2nd quarter of each year⁴, by date of loss



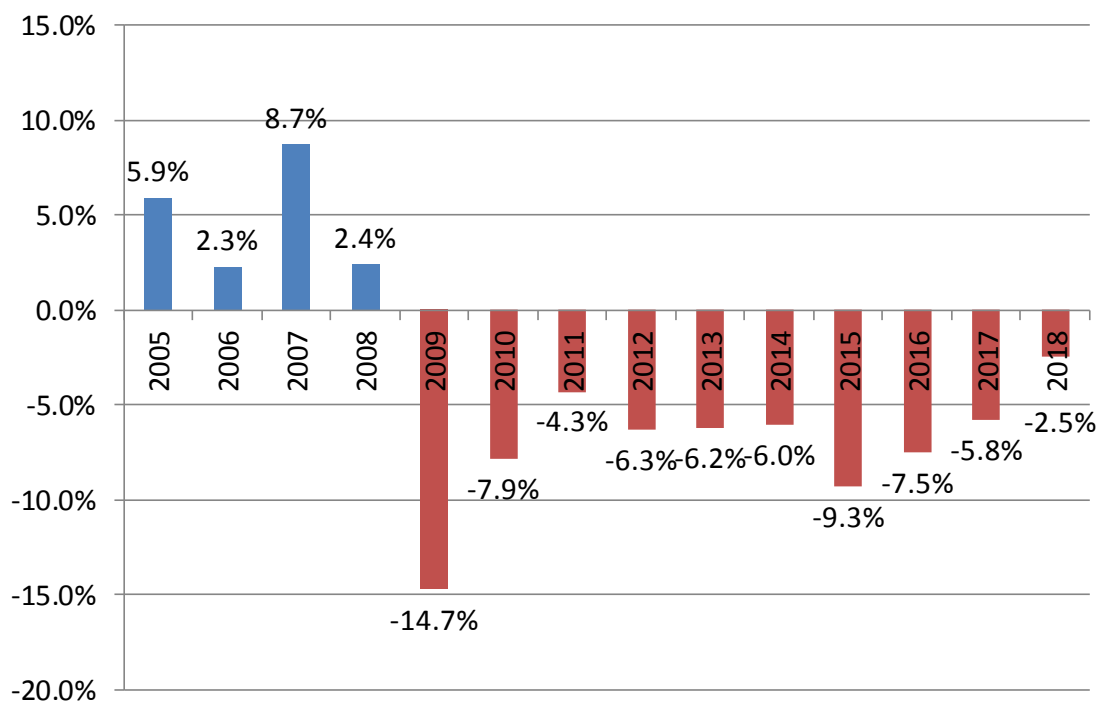
⁴ The annual exposure is used, i.e. the total number of vessels expected to be underwritten in the respective year. Therefore, the claim cost per vessel by the end of the 2nd quarter is half as high as in the other graphs that visualize the expected ultimate results per year.

3. Vessel value and size development

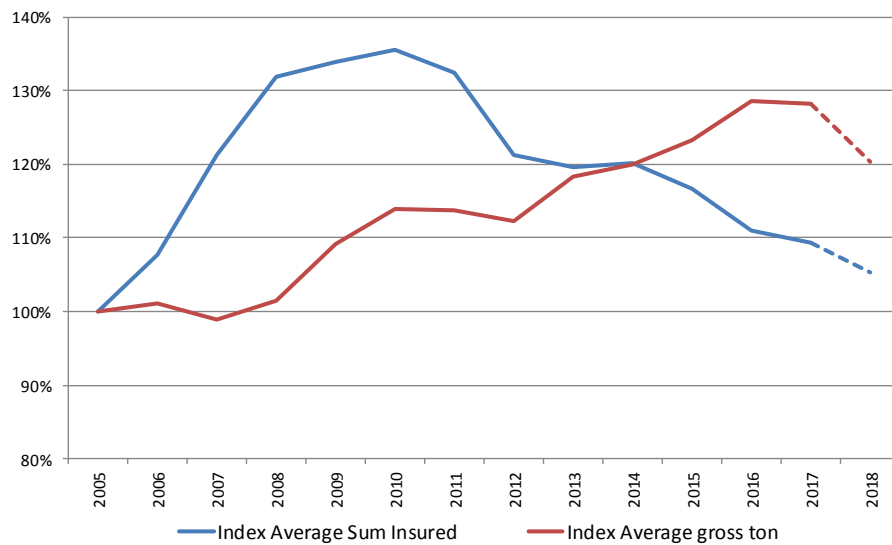
Change of values on renewal

After the substantial drop in insured values on renewals from the last quarter of 2008, the annual reduction stabilized between 4% and 7% between 2011 and 2014. From 2015, the average reduction accelerated again. Especially two-digit value reductions on bulk and supply/offshore vessels contributed to this. The bulk market recovered somewhat in 2017, while the supply/offshore market still was under the influence of the low oil price level. In 2018, also the supply/offshore market showed some signs of recovery, thus bringing the overall annual value change on renewed vessel back to a more moderate level. Under unchanged market conditions, a certain reduction in the insured value of a vessel, compared to the previous insurance period, is expected due to the aging factor.

9: Average annual change in insured values on renewed vessels



10: Index of evolution of average gross ton and insured value (whole portfolio)



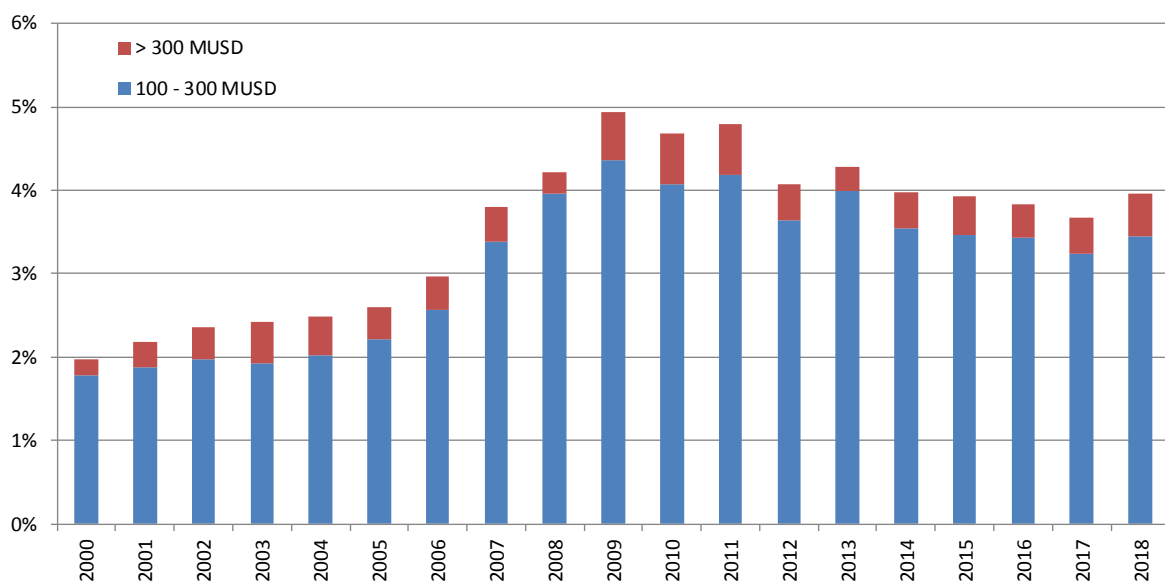
While the average size of the vessels has been constantly increasing in the past ten years in line with ever larger vessels entering the world fleet, this development was not reflected by the average insured value in recent years. On the contrary, the average insured value in the Cefor portfolio showed an adverse development in the years after the 2008 financial crisis and until today. The change in insured values may impact insurance results in various ways. On the one hand, the potential cost of a total loss of a vessel is reduced, when the insured value is reduced. On the other hand, a value reduction is one of several factors which may influence the income side.

4. Exposure to major losses and impact on total cost

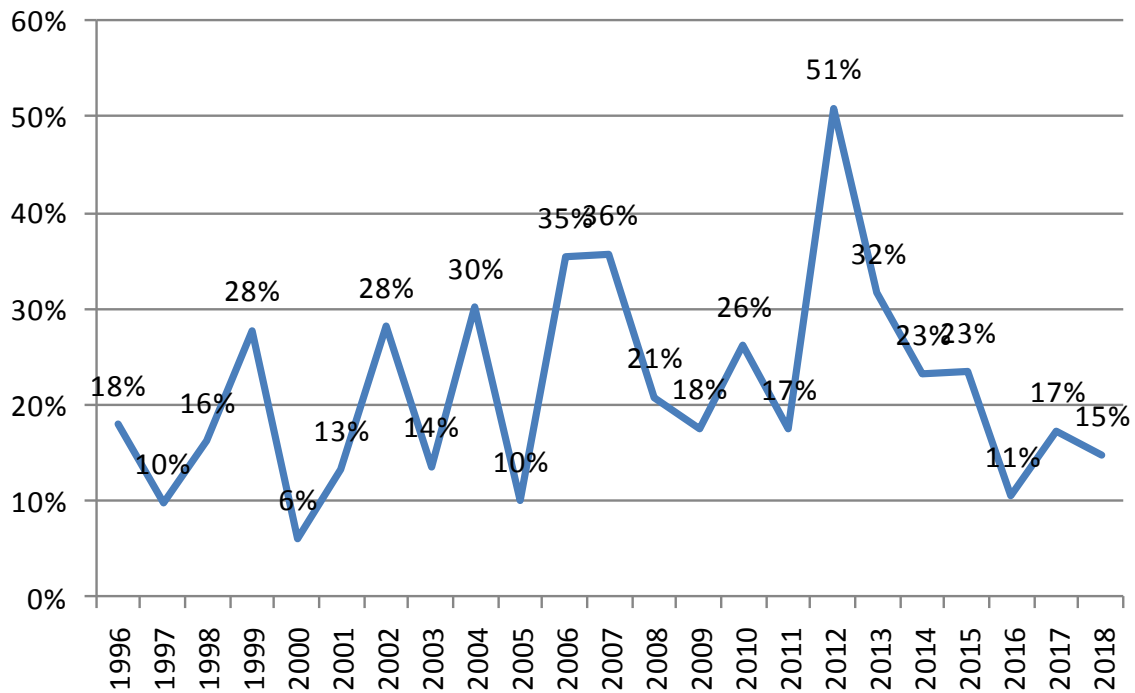
Portfolio share of high-value vessels

The inflow of high-value vessels continues despite value reductions on renewed vessels. This may affect the occurrence of costly losses.

11: Portfolio share of ships with values exceeding USD 100 million



12: Claims in excess of USD 10 million as % of total claim costs



While major losses represented an increasing share of the total claims cost in the years until 2015, this trend has reversed in recent years. In 2016, losses exceeding USD 10 million accounted for only 10.6% of the total claims cost, in 2017 for 17.3%, and in 2018 as of June for 14.8%. Although there are annual fluctuations and individual benign years, with increasing exposure to high-value vessels the underlying risk of expensive losses needs to be monitored.

Further, as illustrated in the Cefor Annual Report 2017, even in years with very moderate major claims impact, the costliest 1% of all claims account for almost 30% of the total claims cost.

5. Average claim cost by type

Total cost divided by number of claims

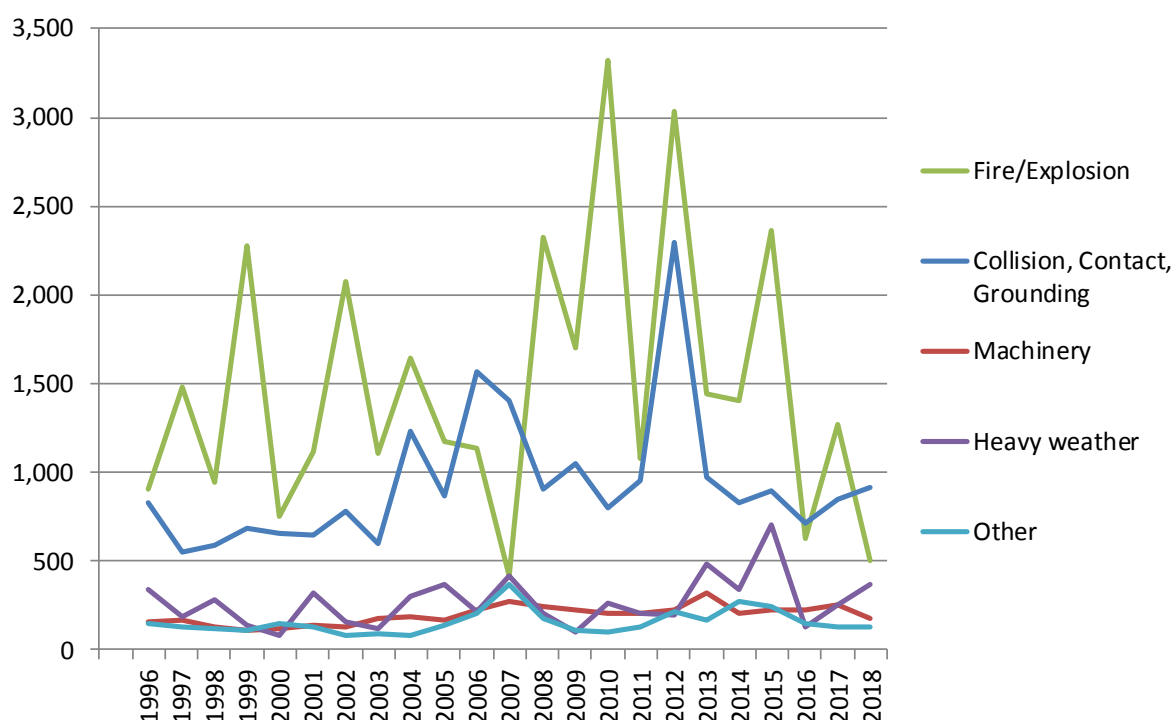
Reduced impact of fire/explosion and navigational-related losses

The average cost of fire/explosion claims was high between 2008 and 2015 but had only a moderate impact in the years from 2016. In 2016 and 2017, there was only one fire/explosion claim exceeding USD 10 million per year (none exceeding USD 20 million), and none had been reported as of June 2018. Given the volatile nature of these usually costly events, this does not mean that the risk has disappeared. The potential for costly fire/explosion claims needs to be evaluated in the context of an increasing number of high-value vessels and concerns about falsely declared goods and fire-fighting capabilities on large container vessels.

The average cost of machinery claims came back to average levels after a peak in 2013, which was mainly due to the impact of two extraordinary major claims in that year. On the other hand, each year since 2011 has seen machinery claims in excess of USD 5 million, and machinery claims exceeding USD 10 million are no longer an exception. In 2013, three such claims were reported, one in 2016 and three in 2017. In 2018, the largest machinery claims reported by end of June was slightly below USD 10 million.

The cost of nautical-related claims (collision, contact, grounding) has been at a relatively stable and moderate level since 2014. A small increase in 2018 compared to 2016 and 2017 is due to one grounding in the 1st quarter of 2018 but does not change the last years' trend. As with fire/explosion claims, the volatility between years is relatively high and the potential risk needs to be considered, as an event on a high-value vessel may result in a very large single loss, as was the case with Costa Concordia in 2012.

13: Average claim cost in USD 1,000



6. Analysing the impact of claims

Grouping claims/casualties for analysis purposes

'Partial' and 'attritional' versus 'total' and 'major' claims

In connection with casualties/claims, several terms are common in the industry. In the half-year report as of June 2017, we put some focus on 'serious' casualties, a classification used by IMO, class societies and commercial data providers, as opposed to 'major' claims, i.e. casualties causing a high cost to insurers. Most often 'major' claims are caused by casualties of a 'serious' nature, but far from all 'serious' casualties are associated with high insurance cost.

Further, a '**total loss**' in the insurance context means that the total insured value of a vessel is payable to the insured as result of a casualty. This may be a total loss in the sense that the vessel is lost beyond repair, or a '**constructive total loss**' when the assumed cost of repair exceeds a certain percent of the insured value of the vessel, usually 75% or 80%, in which case the vessel is deemed to be a total loss and the total insured value is payable to the insured. While the understanding of a 'total loss' is very similar by all in the marine industry, total losses are not the same as 'major' claims. The cost of a total loss can be both high or low, depending on the insured value of the vessel in question.

As for the rest of the claims, the Nordic Marine Insurance Statistics define '**partial**' claims as all claims not being total losses. This distinction is relevant when analysing hull claims trends, as the drivers of the 'partial' claims cost differ from the drivers of the total loss cost. While the cost of total losses is determined by the insured value of the vessel, which in turn is related to the vessel's market value, the 'partial' claims cost is driven by various factors influencing the repair cost of a vessel. Among such factors are wages, steel price, the price of other materials, exchange rates, yard capacity and many more.

Another term often heard is '**attritional**' claims, which is used for casualties not being 'major' claims, i.e. casualties not causing an extraordinarily high single claim cost. Although this approach is directly imaginative, there does not seem to exist a 'hard' definition of 'attritional' in terms of a specified amount or certain defined features of casualties in order to divide 'attritional' from 'major' claims. In the NoMIS statistics, we do not use the term 'attritional'. Instead we publish various types of statistics showing claims trends for claims above and below certain specified cost levels, both in terms of absolute cost as well as in percent of the insured value.

Regarding the impact of 'partial' or 'major' claims on the total claims cost, the relative share of the 'partial' claims of the total claims cost of a year will naturally be the higher the less the major loss impact is in that year.

NoMIS reports focus on claims/casualty trends alone and do not make statements about insurer's results. Insurers' technical results are not driven by the claims cost and frequency alone, but also by additional factors influencing the income side, not all of which are correlated with the claims impact.

Nordic Marine Insurance Statistics (NoMIS)

Data in this report & other NoMIS statistics

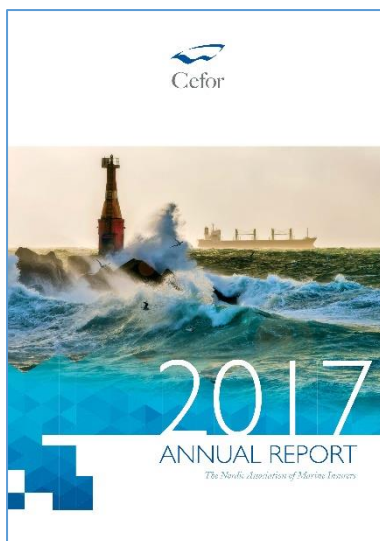
Data in this report has been prepared by the Cefor Statistics Forum.

If not indicated otherwise, claims are grouped by date of loss, i.e. calendar year in which the claims incurred (= accident year).

Figures reflect 100% of each vessel and resulting claims insured under a Hull & Machinery coverage, regardless of the share underwritten by one or more Nordic insurers. 2012 figures thus include e.g. 100% H&M cost of the «Costa Concordia» accident, although only a minor share was covered in the Nordic market.

2018 claims (cost, numbers) reflect the status as reported per 30 June, including an estimate of incurred but not reported claims. For comparability to previous years, 2018 claims – i.e. claims reported within the first half year – are related to 2018 portfolio data for half a year. In the two “quarterly development” graphs (p.5) the annual exposure is used – and the claim cost per vessel by 2nd quarter of each year therefore is half as high as in the other graphs showing the expected ultimate results per year.

Further information is available on the Cefor website at www.cefor.no/statistics



Cefor Annual Report 2017, including NoMIS analysis of ocean and coastal hull trends.



The 2017 NoMIS Reports for Ocean & Coastal Hull Claims trends by age group, size group, vessel types, insured value layers, plus exposure curves and other key figures.

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