CLAIMS FREQUENCY VERSUS AVERAGE VESSEL SPEED

Claims frequency versus average vessel speed

Slow steaming

After the financial and shipping crisis in 2008, slow steaming had been increasingly adopted as a measure to reduce costs. Concerns that speed could be reduced to the point where the engine is running below its intended load, leading to premature wear, lubrication problems and soot deposits, did not lead to claims to the extent that was feared. A positive side-effect was that fuel savings led to a substantial reduction in emissions.

In 2008 the ECA zones[1] came into force, compelling vessels entering these areas to install SOx scrubber systems or switch to low sulphur fuel. From 1 January 2020, the IMO implemented a global 0.5% m/m (mass/mass) sulphur limit[2]. Fears of a potential increase in machinery losses due to the use of non-compliant fuel have so far not materialised to any great extent (see article on page 14). In addition to these expected changes with a potential impact on claims, 2020 was affected by the rather less expected Covid-19 pandemic. Global trade and shipping reacted in slightly different ways. It is not possible to say exactly what percentage each of these influence factors contributed to the 2020 claims frequency, but it is nevertheless of interest to continue monitoring known influencing factors such as vessel speed.

Speed versus frequency

Cefor compared the change in claims frequencies since 2008 in the NoMIS portfolio for bulk, container and tank vessels to the change in average speed to the same vessel segments in the world fleet (graph 6). The average speed is derived from the bulk, container and tank segments of the world fleet[3], while the claims frequencies reflect those of the vessels and claims reported into the NoMIS database[4]. Special thanks to Clarksons Research for letting Cefor use their annual speed indices for the purpose of this comparison.

Graph 6 shows that, until recently, the decline in claims frequencies for the NoMIS bulk and container fleet was similar to the decline in the speed of the respective vessel segments in the world fleet.

[1] Emission control areas under IMO MARPOL Annex VI, see: https://www.imo.org/en/OurWork/Environment/PollutionPrevention/AirPollution/Pages/Emission-Control-Areas-(ECAs)-designated-under-regulation-13-of-MARPOL-Annex-VI-(NOx-emission-control).aspx

[2] Annex VI of the International Convention for the Prevention of Pollution from Ships (MARPOL Convention)

[3] Clarksons Research: time series for annual average speed. Tank data as used for graph 6 reflects the average of crude and product tankers

[4] Claims frequencies: 'tank' reflects the average of the NoMIS 'chemical/product' and 'tank' vessel type groups

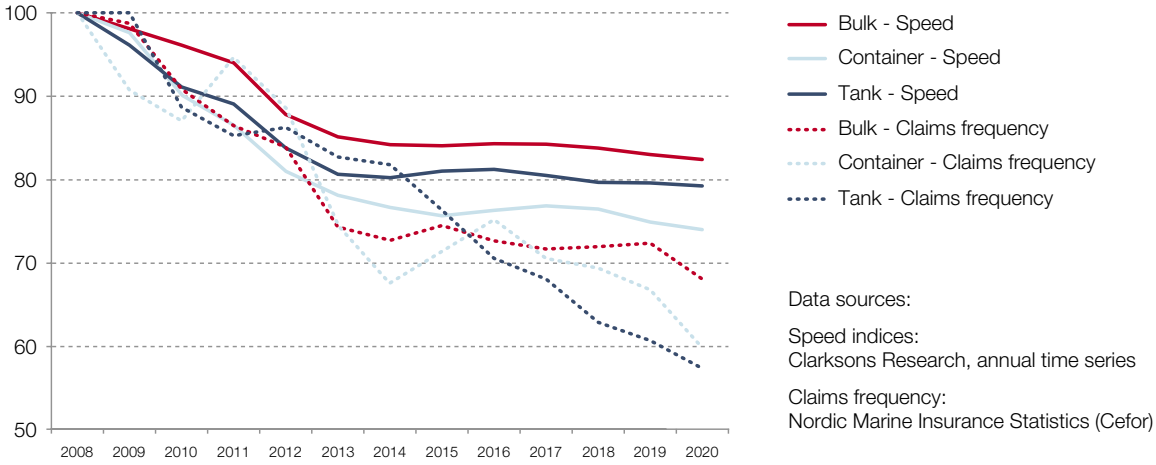
In 2020, there was a further big drop in claims frequencies which must be seen in relation to other influencing factors arising from the Covid-19 pandemic, as explained in the article on ocean hull trends (page 27).

The claims frequency for tank vessels had already started to drop more sharply from 2015.

A parallel development does not prove a causal connection between claims frequency and vessel speed, but does nonetheless indicate a possible correlation. It is reasonable to assume that a vessel operating at a higher speed or in more frequent use is prone to a higher claims frequency. A vessel in a liner trade which reduces its speed by 10% will also reduce the number of voyages and hence the risk of potential claims (port calls, passages through high-risk areas, cargo operations etc). It also seems reasonable to assume that the consequences of groundings and collisions are less severe when the vessel is travelling at a lower speed.

In general, several factors affect the claims frequency, such as the level of insurance deductibles, the cost of repairs, new technology and vessel activity in ports and congested areas, as well as average speed and distance sailed.

6: Index - Average annual vessel speed versus claims frequency (Bulk, Container, Tank)
2008 = 100%, Frequency = 2-year average incl. IBNR[5]



Data sources:

Speed indices:
Clarksons Research, annual time series

Claims frequency:
Nordic Marine Insurance Statistics (Cefor)

[5] IBNR = Incurred But Not Reported = reserve for claims adjustments and registration backlog