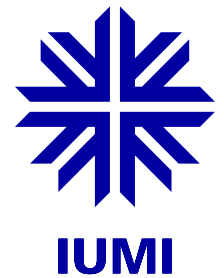


An Emerging Risk Report from Lloyd's Innovation



By Insurance Marine News, 25th January 2018

In a new report from Lloyd's entitled Understanding Risk: Steering The Course, it was observed that the nature of marine risks was changing.

Lloyd's noted that, although insurers could draw on several centuries of marine loss data, it was not as useful for assessing the probability of a severe marine loss, because today's safety standards, trends and shipping patterns were very different. Lloyd's and the Cambridge Centre for Risk Studies worked with marine experts, underwriters, actuaries, exposure managers to present the Lloyd's-Cambridge Marine Risk Model, which aims to help insurers understand the 'tail risk' of potential losses they might experience in their marine portfolio.



The analysis helps marine underwriters improve their estimation of the capital they need to support this sector. Lloyd's said that the model was "an important evolution of the methodology of managing the insurance losses arising from severe marine events", adding that it was "a useful starting point from which to develop further models with marine insurance experts". It believed that it was the first time a fully probabilistic severe loss model had been applied in this way to marine insurance.

Since 1995 the Lloyd's market has managed its collective exposure to extreme marine losses by monitoring the losses that the Lloyd's Market could suffer in a hypothetical shipping catastrophe through the Lloyd's realistic disaster scenarios (RDS). However, the marine risk landscape has changed since these scenarios were originally developed and there were now a number of trends that would influence the likelihood and severity of marine events in the coming years. Vessels were getting bigger and being used more intensively. The average age of the global fleet was increasing as the lifetime of various vessels is extended.

New routes have opened, such as in the polar regions, and a large majority of shipping relied on a few strategic routes. Changes in the regulatory and litigation landscapes had contributed to increasing compensation payouts, practices in dealing with salvage, spills, and wreck removal, all of which had implications for estimating the cost of future marine catastrophes.

Consolidation of the shipping industry and the uncertainty around future economics of shipping

were all adding to a changing pattern of risk. Recognising these changing circumstances, Lloyd's strengthened its marine RDS in 2016. The new scenarios quantified the total losses from a tanker (greater than 50,000 dwt) colliding with a cruise ship (2,000 passengers, 800 staff and crew) in US waters, and, separately, the sinking of a US-owned cruise ship (4,000 passengers, 1,500 staff and crew).

Following its RDS review Lloyd's worked with Cambridge on a model that provided an alternative way of quantifying the risk of marine catastrophes to assess the likelihood and costs of extreme marine events. This project concluded that the current marine scenarios in Lloyd's RDS were extreme but plausible, and that they remained appropriate for Lloyd's oversight.

The report concluded that the risk landscape had changed and that there were a number of trends that would influence the likelihood and severity of marine events in the coming years.

The report presents a model for severe economic losses resulting from marine insurance risks. Lloyd's and Cambridge have developed a logic process model that captures the likelihood of different steps combining to cause a severe loss pay out in different categories: hull loss, wreck removal, cargo loss, liability for injuries, liability for environmental pollution and total pay-outs.

Cyber-attacks on marine navigation equipment were considered more likely to cause relatively low levels of loss compared with other scenarios, though the likelihood of cyber-attacks against marine vessels in general might become more of a risk in future compared with the other scenarios described.

International treaties could dramatically cut the potential for marine insurers to incur severe liabilities from marine incidents, but did not reduce the full economic effect of these scenarios on society. They did, however, help keep premium levels affordable, reducing costs that would otherwise be passed on to customers.

The project concluded that the current marine scenarios in the Lloyd's RDS are extreme, but plausible and they remain appropriate for Lloyd's oversight. The report can be accessed [here](#).

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