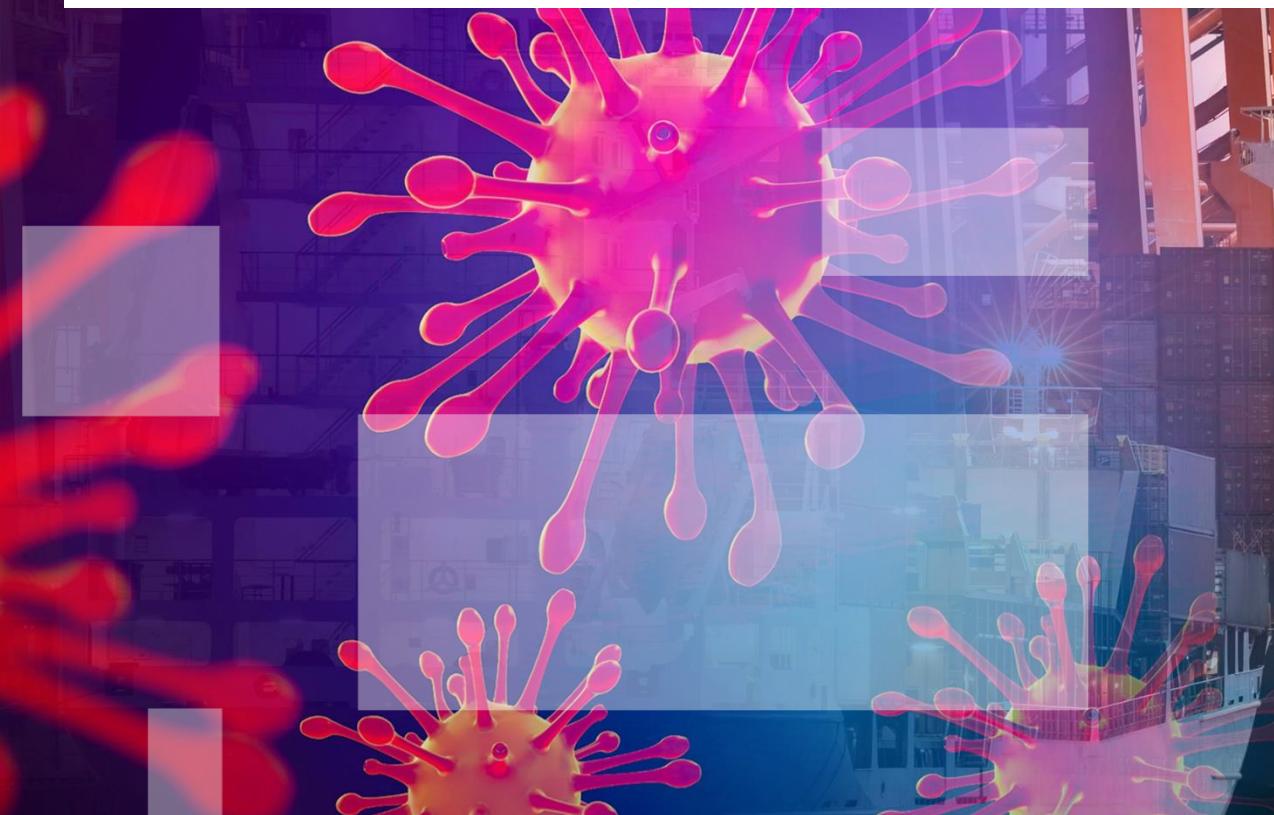


COVID-19

Impact on the Marine & Energy Industry

April 2020



Global impact on the economy of COVID-19

The impact of Covid-19 on the global economy is unprecedented in its size and scope.

Output has reduced heavily across a variety of industries and many have been closed completely due to the view that these businesses are 'non-essential'.

Governments across the world are launching unprecedented **economic stimulus packages** to mitigate economic fallout and prevent debt default, bankruptcy and job losses.

Over 3 billion citizens are in some form of lockdown; this has produced a unique situation resulting in a slow down in economic activity with both the supply and demand side being hit.

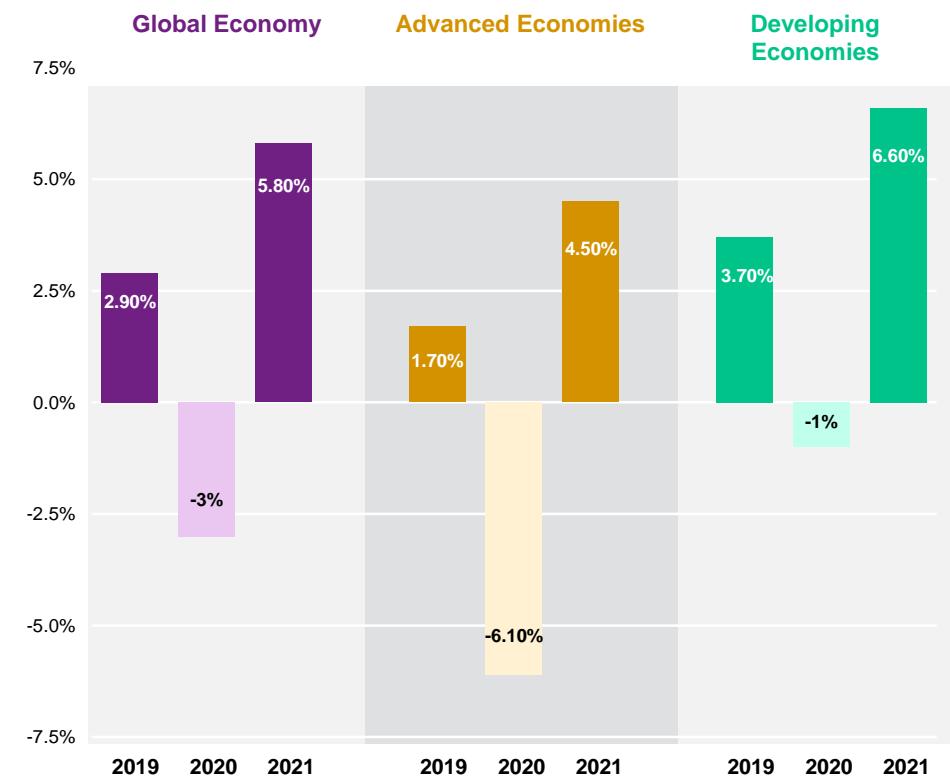
Central banks have **cut interest rates** to the lowest in history.

Economic impact will bring further negative pressures on firms and bring necessary budgetary pressures for investment and growth as well as cost cutting.

Significant longer-term impact on industries heavily geared towards people centric models such as Aviation, Hospitality, Events, Sports, Travel, etc.

Assessments for recovery vary across economic models, with outcomes depending largely on the duration of the outbreak and the effectiveness of the policy responses.

GROWTH PROJECTIONS: COVID-19 will have a severe impact on economic activity



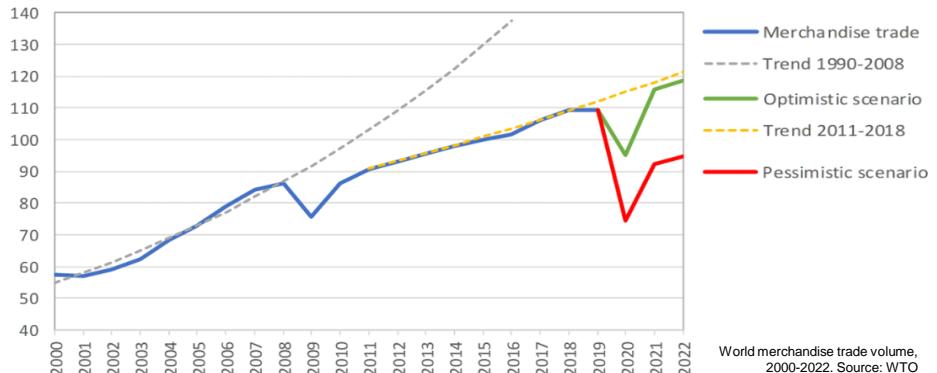
Source: IMF

Impact on Marine Trade and Patterns

Global marine trade is central in overcoming the pandemic and the road to economic recovery.

Shipping Industry is facing unprecedented challenges

- Global trade is expected to fall between 13% - 32% in 2020, as COVID 19 disrupts economic activity and 'normal' life around the world.
- All regions will suffer double-digit declines in trade volumes in 2020, with exports to and from North America and Asia hit hardest.
- Shipping represents 90% of global trade; there will be enormous pressure on this industry especially following the declining capabilities of the airline market.
- Ability of shipping services to continue undisrupted to transport food, energy and medical supplies across the continents will play a critical role in overcoming this pandemic.



World merchandise trade volume, 2000-2022. Source: WTO

Implications for Marine Trade

Short Term

- Reduced trading has significantly impacted international supply chains.
- Slowdown of major ports and delay of cargo has resulted in accumulation concerns.
- Reduced economic activity in retail sector likely to reduce demand for shipping and cargo turnovers.
- Financial challenges for shipowners following the fall in demand for shipping.
- Shipowners, Ports and Logistics companies facing economic challenges could lead to reduced workforce.
- Increase in older vessels being scrapped as an alternative to lay-up.

Medium / Long Term

- Delays in re-establishing supply chain networks and logistics capabilities could lead to delay in projects and infrastructure.
- Major changes in life style post-Corona may lead to major changes in business, eg, social distancing, more working from home leading to less demand for office space and major construction projects.
- Potential rise in price of goods and services due to mitigation on current reliance of supply chains and more domestic production.
- Certain sectors of maritime trade, such as passenger movement face a more uncertain longer-term future.
- COVID-19 could become a key catalyst for digital and technological advancements in the shipping industry.

Impact on Hull Insurance

Shipping Activity & Insurance Implications

Significant number of vessels are moving to lay-up

- Majority of fleets have been impacted; in some fleets up to 70% of the vessels are in some form of lay-up.
- Lay-up returns are offered by underwriters within the region of up to 20% - 50%.
- Loss of Hire policies typically require a 'physical loss trigger' and will therefore have limited increased loss frequency.

Builders Risks Market is considerably reducing

- Drastic reduction in 2020 ship orders; up to 50% in some yards.
- Cruise vessels most significantly impacted, although container and cargo ships have also suffered.
- Orders remain generally unchanged for more specialised vessels such as LNG/LPG.
- Decreased activity in shipyards could increase the costs and prolong the period and cost to repair vessels.

Impact on Hull market

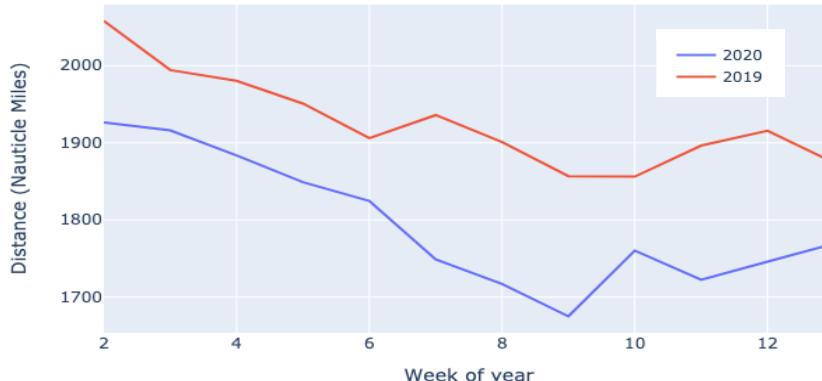
- Reduced premium volume means further pressure on expense ratios.
- Loss frequency is expected to reduce significantly.
- Portfolios are at a higher risk to larger losses as a result of static vessels.
- Potential further withdrawal of capacity from class following poor underwriting year in 2019.

Underwriting changes

- Rating environment continues to be positive following extensive re-underwriting over past 18-24 months.
- No application of LMA 5393 on Institute Hull / Time Clauses following review of applicability of clause – Lloyd's confirmed.
- Coverage for Builder Risks / Port risks include LMA 5395

Container Ships

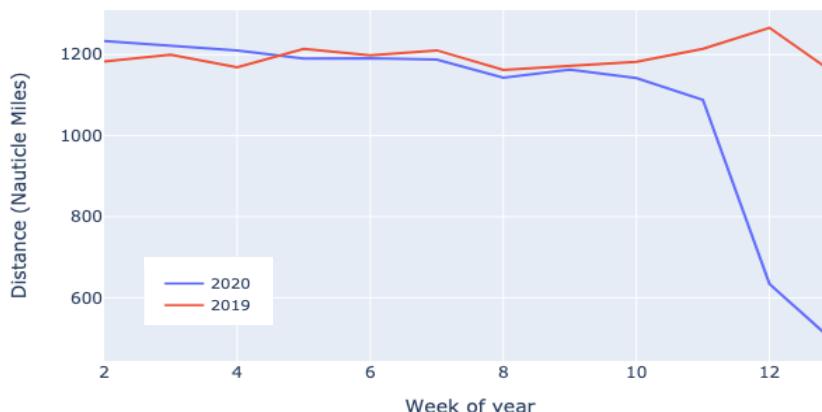
Container Ship's Average Weekly Distance Travelled



- Reduction in demand and lockdown in China particularly has dramatically changed vessel distance profile.
- Initial downturn due to trade dispute between US and China further manifested by impact of Coronavirus impacting globally.
- Demand for new vessels significantly reduced with no timeline for recovery.

Cruise Ships

Passenger (Cruise) Ship's Average Weekly Distance Travelled



Source: Concirrus

- Passenger numbers significantly reduced in Q1 2020.
- A number of cases of the virus on cruise ships
- Mileage per vessel halved since Jan 2020
- Many ports refusing to accept cruise vessels for disembarking.
- Eight vessels carrying 6,000 passengers still at sea as at early April.
- Long-term impact on sector likely to be significant in future demand trends.

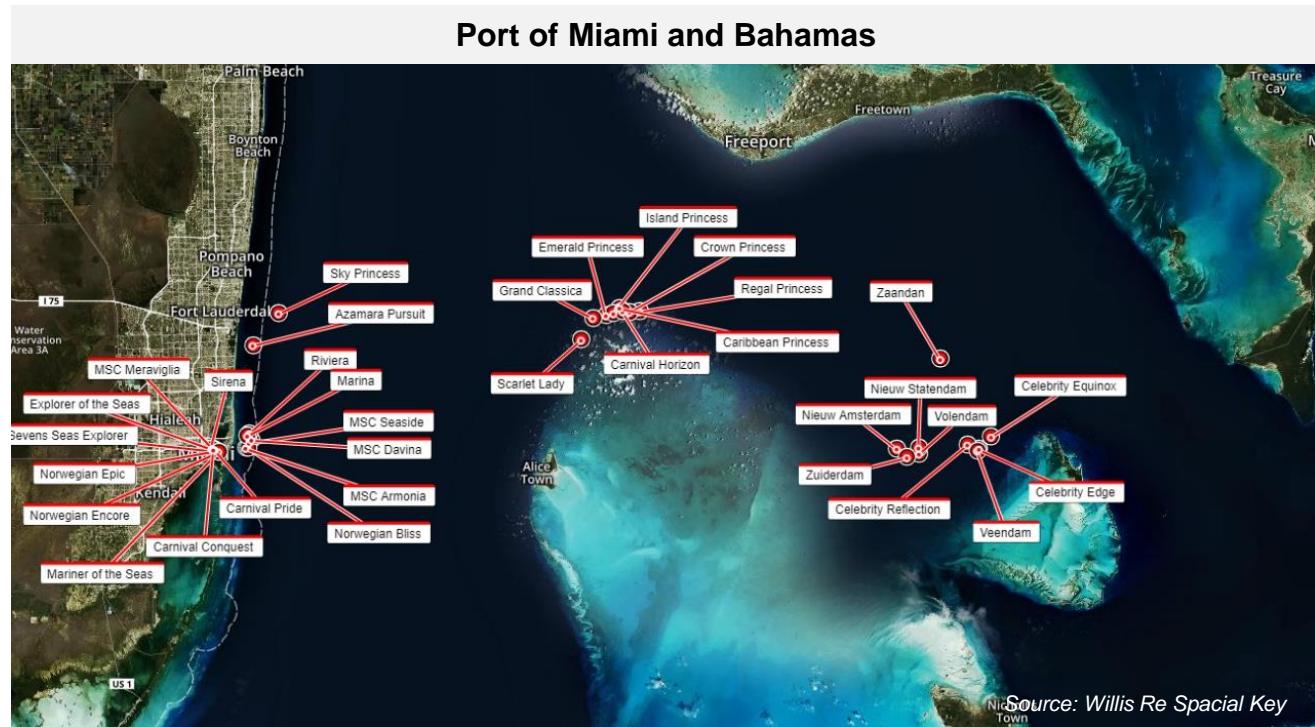
Impact on Hull Insurance

Accumulation Concerns

- The reduction in vessels actively sailing as a result of the disruption to trading and health concerns has raised accumulation concerns for increased numbers of vessels being moored at ports for an extended period of time.
- A number of vessels across the globe which are currently not operational, are moored in close proximity to each other, raising broader accumulation concerns.
- This is of particular concern to passenger and cruise vessels, which are the sectors experiencing the largest drop in demand.
- Many vessels are also entering “cold lay-up”, whilst saving on costs for shipowners, this may result in future operational issues when vessels are active.

Cruise Ships

- COVID-19 has severely impacted the cruise ship industry. Demand and revenue has drastically fallen as ships have been stranded and banned from entering ports,
- Is the drop in demand a permanent development? Potential for cruise ships in lay up to cause accumulation problems on a longer-term.
- Cruise ship accumulation is of particular concern within the Gulf of Mexico region. This region is home to the 5 busiest cruise ship ports, with approximately 21.6 million passengers served from these ports per annum.
- On 4th April 2020, there were 114 cruise ships in U.S ports and water, with a further 41 ships on their way.



Source: Businessinsider

Impact on P&I / Marine Liabilities Insurance

Whilst Willis Re are unaware of any major P&I or Liability claims arising from COVID-19 to date, the current climate brings about challenges and exposures which would otherwise be limited in a ‘normal’ operating environment.

The Role of the International Group (IG)

- To protect Members and Charterers interests and liabilities.
- Proactively advising on **loss prevention and risk avoidance**.
 - The International Group (IG) has established a Sub-Committee to air queries and ensure the IG adopts a unified and consistent approach to COVID-19 exposures.
 - The IG has contributed to the IMO's recommendations for Governments and relevant national authorities on the facilitation of maritime trade during the COVID-19 pandemic – recommendation to **designate Seafarers as ‘Key Workers’**.

COVID-19 Operating Environment

- Ports around the world are denying entry to certain vessels, travel restrictions have postponed Crew changes and vessels are being laid up as a result.
- The upshot of this will be an **increase in related claims and a reduction in premium income** following the Global downturn – regardless of whether recovery is ‘U’ or ‘V’ shaped:
 - In view of the challenging trading conditions, some Clubs such as Steamship Mutual have already announced additional assistance through **deferring payment** of instalments.
 - Offering **Lay Up Returns (LUR)** on Cancelling Returns Only policies (up to 80% premium return rebated).

Increase of ‘People’ Related Claims

Crew claims account for around 30% of all P&I Claims. It will be likely that ‘people’ related claims will increase following the outbreak and ongoing impact of COVID-19:

Quarantine

 Additional expenses incurred as a direct consequence of an outbreak of infectious disease (must be on board the insured vessel)

Seafarers

 Compensation for illness and death as set out in the terms of the applicable contract of employment

Repatriation

 If a seafarer requires medical treatment, the club will indemnify necessary repatriation and substitution costs

Passenger / Accomodees

 Liability to passengers illness and death claims, and damages and compensation to passengers on board

IG Financial Implications

- Wider recent trend of a **deteriorating claims environment and General Increases**:
 - 2018/19 market combined ratio 110%
 - 2019/20 third largest ever loss - **USD447m ‘Golden Ray’**
- **The IG is however significantly more resilient than in 2008/09** with over 2 times larger free reserves.
- Nevertheless **all types of investment income will be subjected to the global downturn**, impacting individual Clubs financial results to varying degrees.

The next 12 months

- Clubs exposed to the **Cruise / Passenger industry** are likely to be disproportionately effected by both COVID-19 claims and the economic fallout from the immobilised industry.
- **Smaller less capitalised Clubs may be less resilient**– particularly those with a higher proportion of equites in their investment portfolios.
- Willis Re would expect to see a **reduction in large loss activity** in line with the reduction in shipping activity, reversing the recent active IG Pool years.
- **Clubs may provide some flexibility in cover** given the unique circumstances of COVID-19.
- **Flight to quality** – Shipowners will look ever closer at the financial performance and results of P&I providers to determine long term risk partners.

Impact on Cargo Insurance

COVID-19 Impact on the Cargo Industry

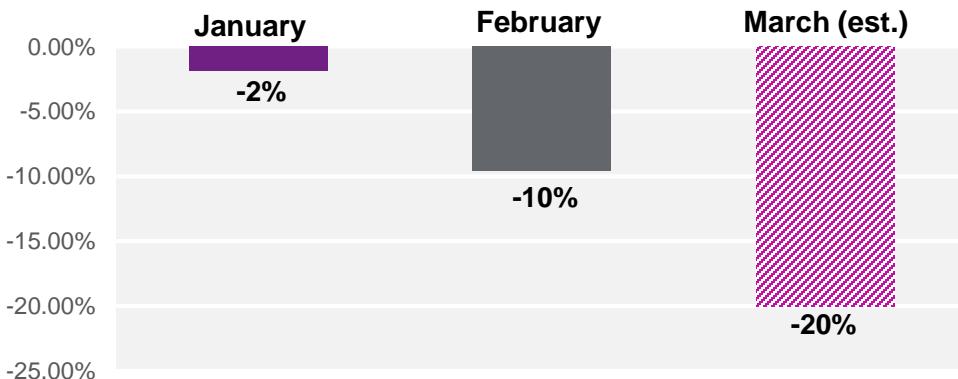
The pandemic has exposed the fragility of the global supply chains

- Multi-country supply chains have been interrupted by factory and border closures. Ports have generally remained open but with a reduced workforce, further hindering the movement of cargo.
- There is greater emphasis for a robust supply chain for perishable goods deemed critical; such as pharmaceuticals and food.

Disruption in China has had a profound effect globally.

- Container shipping is at the epicentre of the crisis.
- China is home to seven of the world's ten busiest container ports which has had a knock-on effect globally; a number of ports are seeing declines in cargo volumes.
- Production shutdown in China will have the greatest effect on industries such as chemicals, pharmaceuticals, textiles, electronics and automobiles.

Container throughput global volume changes in 2020



Insurance Implications

Accumulation

- The hindrance COVID-19 has created in the movement of cargo has raised concern on port and warehouse accumulation.
- Current loss activity from COVID-19 is limited to a relatively small and modest amount of attritional claims.
- Concerns over large losses during extended periods and higher values could produce outsized losses relative to reduce premium base.

Cost Implications

- Assureds having to purchase additional coverage that historically would not have been necessary, for example; storage policies on a per-month basis which in turn incur an increased cost on their long term counter parts.

Cargo premiums will be impacted

- Given the global supply chain disruption, there will be a detrimental impact to the cargo industry as a whole. Whilst there are reduced premiums from transit policies, there is a significant uptake in storage policies.
- Dramatic reduction in niche specialties such as project cargo, trade disruption for the foreseeable future.

Impact on Coverage

- Re-underwriting process has reduced significant amounts of broader coverage in past 18 months. This process continues with stricter risk assessment being practiced during 2020.
- Assureds concerned over potential costs caused from delay, as most cargo policies exclude losses solely caused by this.
- Insurers are sub-limiting and aggregating extra expense clauses. Underwriters are closely monitoring potential proximate clauses to how these policies could be triggered.
- LMA has released two new exclusion wordings:

LMA 5393 – Communicable Disease Exclusion

LMA 5391 – COVID 19 Exclusion

Impact on Energy Insurance

Oil Activity

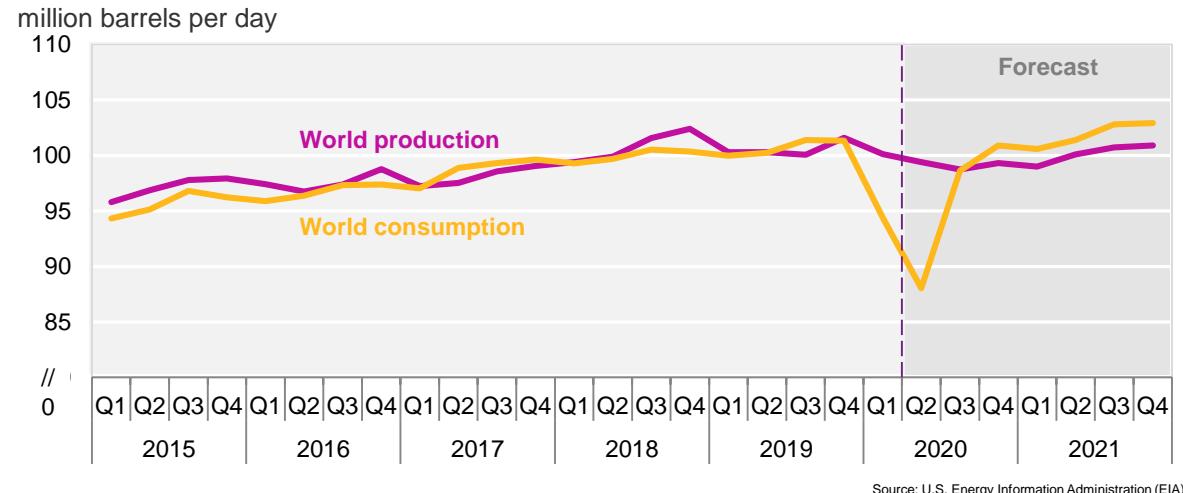
COVID 19 has seen world demand for oil reduce by c.17mbpd

- Triggered by global restrictions on travel and manufacturing as the planet tackles the virus.
- The recent historic agreement between OPEC and other oil producers to reduce production by 10m bpd (c.1/10th of the Worldwide daily consumption) could assist, but it is uncertain at this stage if this will succeed in boosting crude prices.
- Countries with lower costs can manage short-term reductions in oil price. However, sustained and longer-term depression on the oil price could have broader socio-economic impact on these countries heavily dependant on oil and gas.

When the world economy begins to open up after the pandemic, it could find the oil industry looking different.

- Covid19 will fundamentally alter demand for oil, with more people working remotely, a lot of international travel could come to be seen as unnecessary and companies may bring supply chains closer to home to avert disruptions.
- At the current oil price and with long-term reduced demand, a focus on renewable energy projects may be a more attractive sector in the future and may encourage a broader switch to renewable strategies.

World liquid fuels production and consumption balance



Implications on the Insurance industry

- Oil majors will drastically cut their capital expenditure as has already been announced, resulting in significantly less drilling and construction of production infrastructure.
- Expectation for lower valuations for both assets and Loss Of Production Income, resulting in a reduced premium base in a market that has already seen two thirds of its income eradicated since 2014.
- It is likely that there will be bankruptcies and consolidation in the shale arena. This will result in less clients and less insurance volume as oil majors may consolidate these types of operations on their own balance sheets.
- On the back of the oversupplied oil market and steep contango, crude oil held in floating storage is hitting record numbers; raising further accumulation concerns for insurers.
- Introduction of a general exclusion for Communicable Disease (JR2020/016) used across the Upstream Energy market. Other clauses designed for surveyors, lay-up and reactivation have been released as well.

Capacity / Rating

Market capacity has biggest influence on the rating environment

- Upstream capacity has increased in 2020. Now estimated at \$8.73bln compared to \$8.1bn in 2019. The class has had limited large loss experience for a long period of time and remains profitable.
- Downstream capacity has reduced to an estimated \$5.978bln from \$6.482bln in 2019. Primarily due to poor results and reduced perception of profitability in this challenging sector.
- Previous "Black Swan" events have reduced available capital in market. Post 9/11, with the depleted capital in the insurance sector, there was an average of 130% rate rises in Upstream Energy.
- The London market, which dominates Upstream Energy, has made an underwriting loss for three consecutive years. For 2019, there was an overall profit for Lloyd's, thanks mainly due to investment returns.
- The short term outlook for investment returns is very bleak, which will further exacerbate the need for rate increases across the board from carrier's management.

Impact on Reinsurance

Losses	Coverage	Capacity	Future Trends
Industry Loss \$100Bn	Pre – COVID-19	Reinsurance Traditional Capacity	Rating
<p>Industry Loss \$100Bn</p> <p>More recently there are suggestions that COVID-19 could be the biggest insured loss event in history – \$80Bn-\$100Bn.</p>	<p>Pre – COVID-19</p> <p>The significant majority of Reinsurance Contracts in place prior to the outbreak had no exclusion for Contagious Disease Claims.</p>	<p>Reinsurance Traditional Capacity</p> <p>(Re)insurance companies are expected to suffer from indirect impacts of COVID-19 on capital and balance sheets rather than direct impacts (underwriting risk)</p> <ul style="list-style-type: none"> Willis Re currently estimate that global reinsurance capital base will be negatively impacted by 5%. This is a very fluid situation, with analysis being dictated by mitigating fiscal measures and the investment markets which are very volatile. Many reinsurers have strong starting points of capital strength which continue to provide them with insulation 	<p>Rating</p> <ul style="list-style-type: none"> Given the potential size of losses to property market there could be a case for the Marine market to also be impacted on a cross class basis. Reinsurers likely to be pushing for continued improvements in forthcoming renewals.
Marine Market Loss	COVID-19 Era	Marine Traditional Capacity	Buying Patterns
<ul style="list-style-type: none"> The majority of this loss is expected to stem from non-marine contracts. Contrastingly (based on current information) it is expected that some marine liability claims will occur as well as limited hull, energy and cargo claims 	<p>Marine Reinsurance Market at 1.4</p> <ul style="list-style-type: none"> For the 1st April Renewals, negotiations were very advanced before the COVID-19's exponential growth. It was therefore difficult for Reinsurers to impose exclusion provisions on Contracts. For example: The Japanese Market and London clients were in the main successful in avoiding any exclusionary language. 	<p>Marine Traditional Capacity</p> <ul style="list-style-type: none"> Notwithstanding the above we don't expect to see any reinsurers actively withdrawing from the marine XOL market as a result of a change in the marine risk landscape. Instead such decisions would be non-marine driven and capital plays. 	<p>Buying Patterns</p> <ul style="list-style-type: none"> Potential changes in purchasing appetite. In recent years a key KPI for clients has been reduced volatility against frequency of losses and purchasing a low retention With increased concerns about capital relief, we could see an increased demand for reinsurance.
Broader Composite observations - Increased Exposure to Non Traditional Lines of Business	Marine Reinsurance - Post 1.4	Alternative Capacity	
<p>Contingency/ Event Cancellation Some original covers do include a write back for communicable disease –this could impact Marine XOL Composite programmes.</p> <p>Political Risk The geo-political situation even before the outbreak of COVID-19 showed signs of strain - but with global population in lockdown and count of virus cases increasing Willis Re believe there is elevated risk</p> <p>Aviation War Airlines looking to purchase an increase in Hull War Limits for its grounded fleets to match the aggregate exposure on the ground. (e.g Singapore Airport +\$20Bn of exposure)</p> <p>This situation could lead to composite coverage being reviewed more broadly.</p>	<p>Marine Reinsurance - Post 1.4</p> <ul style="list-style-type: none"> Since 1st April we have witnessed mixed messages but recent and ongoing renewals are increasingly seeing a requirement from reinsurers for the exclusion of COVID 19 related claims. Reinsurers are currently proposing their own variety of clauses in the absence of a market consensus. 	<p>Alternative Capacity</p> <p>The core attraction of ILS to investors has been the fact it is a non-correlating asset class that generates attractive risk adjusted returns and is short tail business.</p> <ul style="list-style-type: none"> The pandemic is arguably correlated which could provide a headwind Debates between insurers and reinsurers on coverage could take years to resolve and 'trap capital' Moreover, if political pressures trigger losses for the alternative capital market which were excluded – this could scaremonger investors. 	

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