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Shipping should shrug off Coronavirus but escalation risks supply chain contagion

The impact of the Coronavirus on shipping is being experienced differently across the sectors, says Dr Adam Kent, Managing Director, MSI

The impact of the Coronavirus on the Chinese economy has already been severe and the scenarios for shipping range from a quick resolution to a long drawn out impact. In modelling the likely effects, MSI has analysed how the virus is affecting shipping sectors now and what the future implications of a further escalation might be.

Each sector has been affected to a different degree by the crisis so far, and each has a different set of vulnerabilities to escalation or prolonged disruption. Vessel earnings in the tanker segment have already seen a negative impact and are exposed to continued disruption to oil demand.

For dry bulk the Coronavirus has worsened an already-challenging environment. The impact on the container trades have been different until now, with relatively small movements in markets but major disruption to trade. In each case the downside risks from escalation and further disruption are extensive.

	"Status Quo"	"Moderate Escalation"	"Severe Escalation"
Containership	Further blanked sailings, increased liner company losses (offset later) some risk of reduced T/C market demand in near-term (c. -5% risk to earnings).	Pressure on key trade market balances. Upward pressure on idle fleet, causing moderate T/C rate fall (c. 10% risk to earnings).	Load factors on key trades plummet, large increase in vessel idling, extensive T/C rate downside (> 20%). Global demand growth negative.
Dry Bulk	Negative impact on steel production + coal use. Iron ore imports insulated to a degree. Other issues more important to earnings.	Additional reduction in steel production; port restrictions reduce iron ore import insulation. c. 10% earnings risk.	Chinese industrial output sees prolonged disruption, insulation of e.g. iron ore imports removed. 20+% risk to earnings.
Oil Tanker	Chinese oil demand lower by c. 1-2%, earnings hit by around 10-15%	Additional downside to Chinese oil demand, more severe Q1 20 earnings correction	Earnings improvement in Q2 20 fails to materialise, wider disruption to oil markets.

"**Status Quo**": Peak of disruption in mid-February, restrictions unwound thereafter.
"**Moderate Escalation**": Industrial output/travel restrictions last into early March, some disruption to port operations.
"**Severe Escalation**": Extended (into Q2 20) disruption to industrial output and travel, and/or heavy restrictions on port operations.

The MSI risk matrix depicts how different segments will be affected by the status quo in which we expect that the disruption peaks over mid or late February and then restrictions to output and mobility are unwound thereafter.

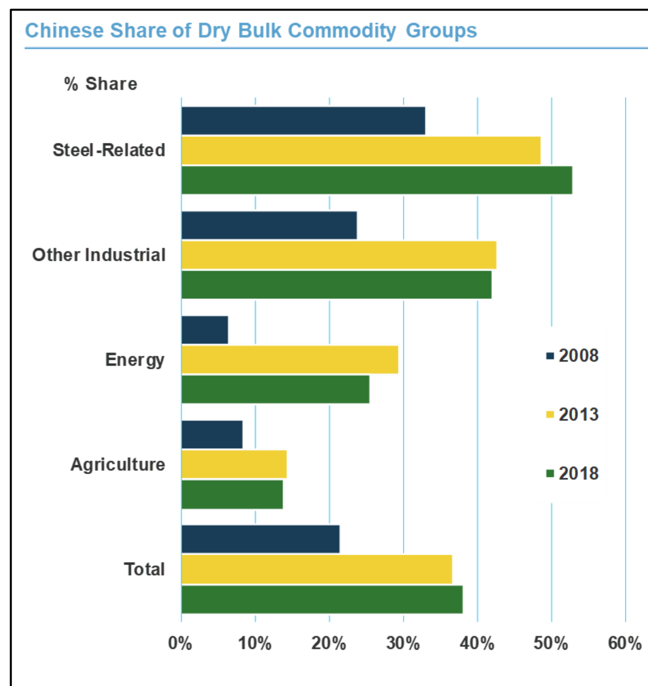
We add a moderate escalation scenario in which disruption continues into March and there's some restriction on port activity over that period of time, which again implies further downside risk to vessel earnings.

Lastly we model a severe escalation scenario in which the impacts last well into Q2 forcing a continued shutdown or increased shutdown of Chinese factory output or significant disruption to Chinese port operations. In that case the market should expect double-digit downside risk to vessel earnings in the different segments.

Dry bulk fallout

Turning first to dry bulk, the potential impact of the Coronavirus is huge, given that China imports around 40% of global dry bulk cargoes.

Chinese industrial production and demand for dry bulk imports have already been severely hit by the virus, the result of extended factory closures and reduced worker mobility. Critically for dry bulk, however, those same disruptions also impact domestic production of raw materials, so to understand dry bulk import demand we need to examine the balance between production of goods and domestic inputs and to what extent imports are filling the gap.



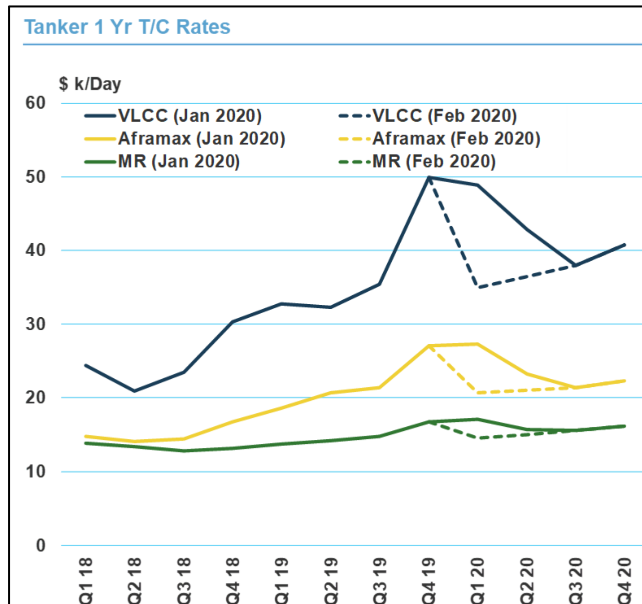
MSI believes that due to the significant near-term slowdown in the construction sector, steel production in China fall by about 3% in 2020. However, we believe that basic oxygen furnace output will be more resilient than electric arc furnace output and, as a result, iron ore imports will be relatively insulated from that initial fall in steel production.

In addition, on a year-on-year basis, the supply of iron ore is much improved from last year when the Vale dam collapse slashed output. So far, we have not seen massive disruption in chartering demand from Brazil for iron ore beyond the usual Q1 weather-related issues, and so, provided the status quo holds, we expect Chinese iron ore imports to increase by about 3% in 2020.

Weak industrial output will also affect power demand and, unlike with the iron ore segment, the interaction between coal demand, domestic coal production and imports is likely to disadvantage imports this year. This is for the simple reason that the Chinese authorities will likely choose to protect domestic coal producers at the expense of importers, causing Chinese coal imports to fall by about 6% in 2020. We do note some upside risk to this view, however, should domestic production be curtailed by a delay in the migrant workforce returning to the mines.

Combined, these expected impacts on trade are not ruinous. The most significant risk at the moment, though, is the fragility of the transport network. Even if fundamentals support imports, without an effective supply chain from ports through to rail and road networks in China the dry bulk industry will suffer.

Tanker declines accelerate



The tanker market is really where we've seen the greatest initial impact from Coronavirus on markets. Tanker markets are already seeing substantial downside, with sharp declines in spot markets after a strong start to the year. The IEA have stated that global oil demand is likely to contract in Q1 20 as a result of the coronavirus, the first time this has happened since 2009. China's oil demand is experiencing severe shock and could drop by more than 3 Mn b/d (c. 25%) in February.

China accounts for about 14% of global oil demand, but 22% of global crude trade as estimated by MSI. Moreover, it was the key growth driver in 2019. Net growth in global crude imports was effectively flat last year, while China saw an 8.9% increase. This year will be markedly different with Chinese refiners cutting throughput substantially in Q1, although our Base Case view is that conditions will normalise in Q2. Until then, vessel earnings will continue to decline across Q1.

The impact of coronavirus will not just be in China itself. With oil prices having fallen by around 15% between mid-January and mid-February, OPEC may decide to take even more substantial action in a meeting scheduled for early March. Against a backdrop of plummeting Libyan exports, as well, crude cargo volumes will be under pressure across H1 20 as a result.

In terms of markets, it should be noted MSI already expected a weakening of tanker time charter earnings over the course of 2020 as the earlier impetus from IMO 2020 and sanctions faded. What we have seen so far from coronavirus is an escalation of these trends, with further downside risk if there is further escalation.

Containers ride the storm

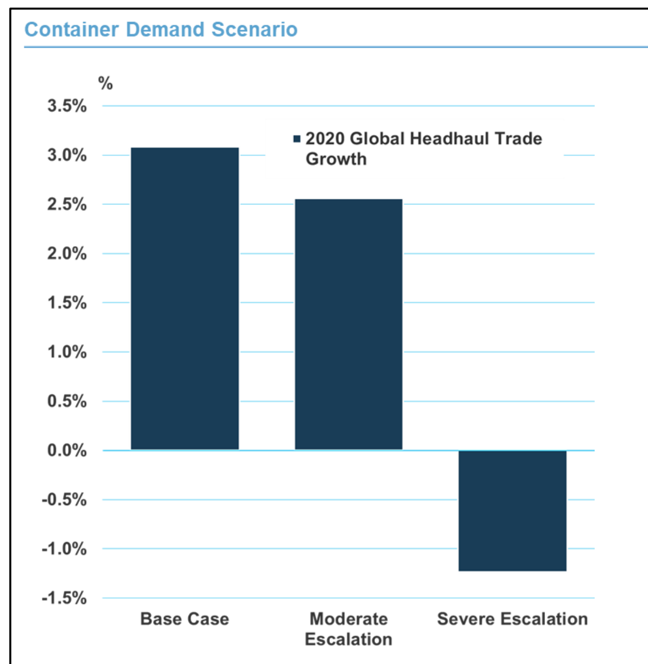
The container shipping sector has experienced a different type of exposure to the Coronavirus, with the immediate impact on markets so far arguably the smallest among the three main sectors. Disruption to containerised supply-chains and liner company operations has been extensive, however, and the longer this lasts, the less markets will be insulated.

For containerships, the Coronavirus is fundamentally a question of supply not demand, as disruption to China's manufacturing output and port operations effectively creates a big reduction in the supply of containerised goods. The impact so far effectively amounts to an extension of the Lunar New Year - when even in normal years container trade flows take a hit, freight rates tumble, and factory output takes weeks to return to normal. The Coronavirus has turbo-charged these normal seasonal trends.

The result is that Chinese factories are operating far below capacity, and with few boxes to load liner companies have implemented an increased programme of blanked sailings.

Our view is that provided that workers do return to factories in around mid-February onwards and disruption to port operations outside Wuhan are contained, the impacts on long haul container beyond mid-March will be relatively limited. The impact is going to be larger on the intra-Asia trades where demand growth will slow significantly in the first quarter of this year. This of course applies to Chinese domestic trades, but also to trades where Chinese exports to foreign manufacturers play a key role. There is already evidence this is limiting liner company demand for extra tonnage in East Asia, with downside implications for timecharter earnings in the near-term.

The key question for containerships is how far the situation escalates. If we see significant disruption to Chinese manufacturing operations beyond the next several weeks, or the start of significant port disruption if the return to work actually worsens the outbreak, the downside for containership demand out of China could become severe in its implications.



MSI has modelled three scenarios. The first is a Base Case in which most Chinese businesses are back to work within the next week or two and there are no major disruptions to port operations. This leads to a slightly lower view of global container demand compared to our pre-coronavirus Base Case. Then there is a moderate escalation scenario where the disruption to factory operations extends into the middle of March. This could lower headhaul global demand growth by about half a percentage point in 2020.

The third is a severe escalation scenario in which Chinese export volumes in Q1 20 are 50% lower than our Base Case on the key trades and 30% lower in Q2, prompted by either massive factory closures or significant disruptions at the main ports. We would expect this to result in negative headhaul demand growth of about minus 1% in 2020.

So far, there has not been a massive impact on the spot freight rates that drive liner company profits, at least beyond normal seasonal trends. However, the impact of an escalation will first be felt in the container segment through spot freight rates, and absent a freight rate recovery this will impair balance sheets at a time that industry fuel expenditure has risen.

Demand for time charter tonnage in the container segment is a derivative of container demand so the longer the disruption goes on, the more likely it is that liner companies will consider redelivering vessels at the earliest possible date or refrain from taking on

new tonnage. It’s likely that some of that impact will be felt soon, and certainly within the Far East that there is going to be an increase in the idle fleet of smaller containerships in particular as liner companies take a cautious approach taking on new tonnage.

As with the other sectors, the downside risk for containership freight and charter earnings lie in further escalations; if companies to start to lose significant amounts of money then tonnage demand will be scaled back until demand and supply recover towards something approaching full health.