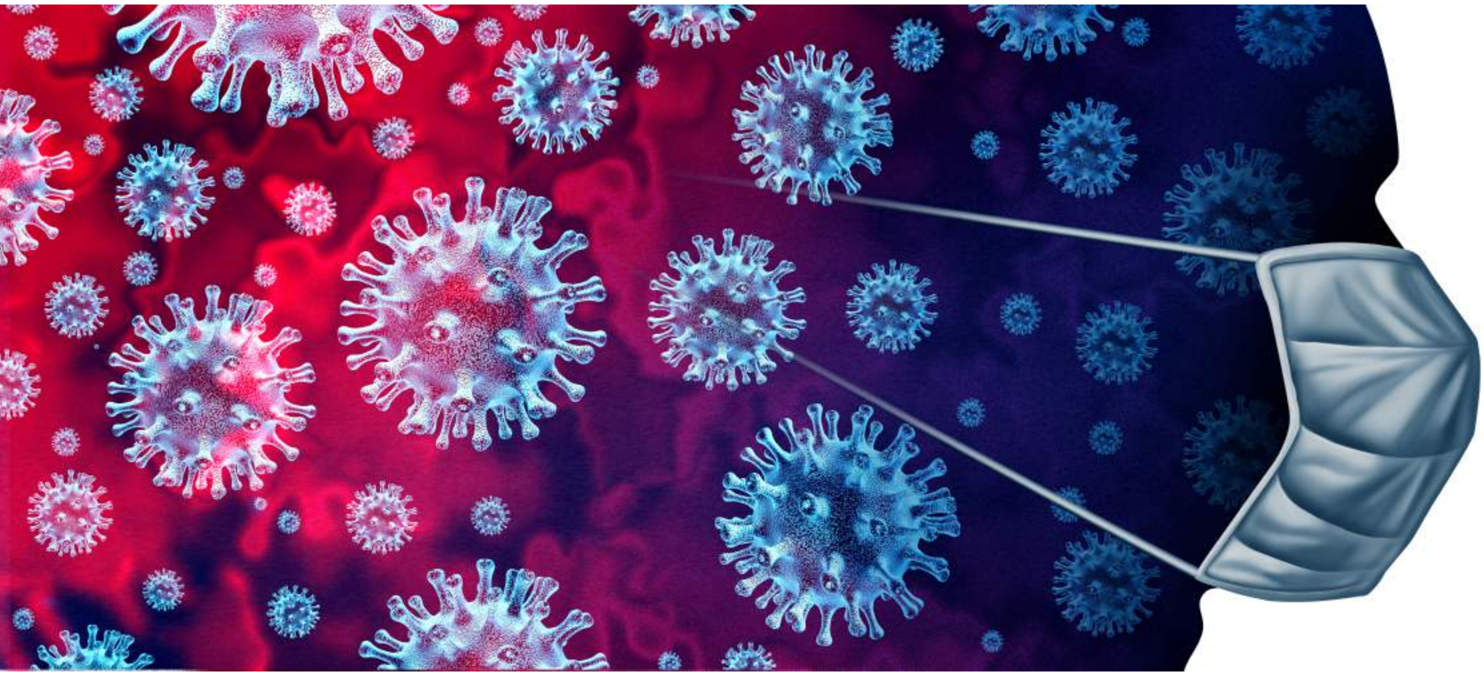
Ti COVID-19 Monitor



The anatomy of the crisis and its short-term consequences for the logistics and supply chain sector

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Covid-19: The anatomy of the crisis and its short-term consequences for the logistics and supply chain sector

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Writing at the time of the Swine Flu epidemic ten years ago, I asserted that Western economies faced paralysis if widespread disease managed to take hold in the highly labour-intensive logistics and transport industry. I suggested that modern, lean inventory supply chains were highly vulnerable to disruption from a pandemic not least as worst-case government assumptions at the time suggested that 80% of the workforce could be affected by the spread of such a virus.

Whilst Swine Flu did not spread widely in the West (hence perhaps the complacency seen this time round), its successor, Coronavirus, has become the global pandemic which many people feared. However, in terms of the impact on supply chains and the wider economy, things have not worked out as I had initially believed. Economies are in paralysis, yes, but due to government lockdown directives rather than the collapse of distribution systems. In fact, logistics and supply chains have proved to be remarkably robust. The reason for the industry's resilience is twofold.

Firstly, a large proportion of workers in the transport and logistics operations have remained healthy and have continued to come to work. Drivers have been able to effectively self-isolate in their vehicles and social-distancing has meant that few have been infected (or infected others). Many warehouse operators have successfully managed their workforces to prevent the spread of the virus by systematic cleaning, social distancing and isolating staff and immediate colleagues who become sick. Not all companies have been above criticism – unions have complained about the lack of safety initiatives in place at some warehouses (Amazon has been singled out) and drivers have been angered at not being allowed access to basic sanitary facilities at delivery locations. However, overall, the industry has continued to function. Anecdotally, it seems that many unemployed retail workers have moved to the warehouse sector enabling e-retailing and grocery logistics systems to keep operating. Also the disease worst affects the elderly, with many younger workers only experiencing very mild symptoms. After two weeks they have been able to return to work.

Secondly, parts of the manufacturing industry were shutdown at an early stage either by government directive or through lack of demand as consumers were forced to stay at home. This enabled logistics companies to re-allocate resources to other sectors which have seen greater levels of demand (e.g. groceries and consumer goods). Many retailers experienced many days of 'Christmas level' sales – but despite stock outs on one day, shelves would be replenished the next. On the whole, the crisis has actually led to over-capacity of drivers in the economy, not a shortage.

So, the Coronavirus has had a highly complex and nuanced effect on supply chains, industry and economies which has been impossible to predict, not least due to its impact at different times on different stages of supply chains. Bottlenecks have appeared throughout the world as first supply was disrupted in Asia and then demand in Europe and North America. The individual micro-dynamics of air, road and sea freight markets, as well as external governmental factors such as regulations and border controls, have also led to a mismatch in supply and demand.

The crisis and its impact on supply chain and logistics can be summarised in three phases.

<u>Phase 1. Mid-January to early March 2020.</u>

The disease took hold in Wuhan in January (possibly before) and then spread throughout China. In response, the authorities undertook a lockdown of the worst impacted cities and road, air and sea freight transport in many parts of the country came to a halt. The impact was mitigated somewhat by the Chinese New Year holiday which was subsequently extended. Most manufacturers got back to work after a couple more weeks (mid-February) although it took much longer in parts of the country.

This phase can be characterized primarily as a disruption of supply. The virus had not affected Western markets which still had demand for Chinese products. Ports were not working at full capacity at the time and there was a backlog of containers. Air freight could still be moved (air passenger flights were still in service) but it was difficult getting consignments to the airports by road.

In summary:

- Shipping lines blanked sailings due to lack of exports
- Ports worked on skeleton manning levels, leading to containers backing up
- Road transport in China was disrupted and movements of goods to ports prevented
- Freight forwarding offices were shut or staff worked from home
- Air cargo shipments were disrupted by lack of ground distribution

However, e-retail platforms such as JD.com and Alibaba saw some benefits from the crisis. JD.com and its online delivery platform Dada Group hired 35,000 new workers to cope with the last mile demands of supplying people quarantined at home.

By February 20 a lot of the backlog at ports was being cleared (Shanghai was moving almost 60,000 containers compared with an average daily volume of 54,000 at the time) and manufacturing returned to normal, at least in China.

Phase 2. Late February – to date.

The contagion spreads to the rest of Asia and then the West. Italy is the first European country to be badly affected, especially in its industrial heartland in the north, followed by Spain and France. The automotive sector shuts down, resulting in consequences to suppliers across Europe as a whole. The US is amongst the last major economy to be affected, although when the virus does take hold its impact is severe.

Consumers in these markets start to panic buy and grocery/FMCG retailers experience stock outs as they struggle to meet the demand of consumers.

- International air passenger services are suspended, meaning that it becomes difficult to move goods such as high tech, pharmaceuticals and perishables around the world in bellyhold.
- All cargo flights (chartered and scheduled) become in great demand and rates rise fourfold.
- Additional capacity added as airlines re-configure passenger aircraft to cargo.
- Shipping lines start to blank sailings again this time due to lack of demand for imports rather than to lack of supply of exports.
- Ports report stockpiling of bulk commodities such as grains and liquids; finished vehicles back up on-quay remaining uncollected by dealers but large spare capacity for general/consumer goods as a result of falls in sales in this sector of retail.
- Road freight in Western Europe sees initial spike in demand for some consumer goods sectors (especially staple groceries) but other sectors collapse as factories shut. This leaves imbalance in capacity in terms of transport assets and routes which it takes time to address.
- Driver capacity falls as many avoid travelling long distances away from home (e.g. in Europe, Eastern European drivers return home). However, weaker economic activity leads to a surfeit of supply.
- In the warehousing and distribution sectors, the virus starts to affect logistics work forces around the world more widely. Despite health and safety protocols, some distribution centres become impacted with as much as 50% of staff sick or self-isolating. As the lockdown goes on, supplying customers becomes ever more difficult as it becomes increasingly difficult to hire transport and warehouse workers.
- Rail freight on China-Europe routes receives a boost from the cessation of air passenger services to the country. When services on the route started operating again in March, volumes saw a spike with the number of containers increasing by a third year-on-year and trains operating at full capacity.

Phase 3. April/May 2020 onwards.

So, what about my original thinking almost ten years ago that the logistics sector could falter in the face of a pandemic? I believed that a lack of logistics supply would cause manufacturers to cease production, unable to move inbound or outbound goods and with supplies of spare parts disrupted. In fact, what has actually happened is that manufacturers and governments shut down a large proportion of manufacturing before it got to the point where logistics systems were over-whelmed.

Indeed, the logistics industry focused on some consumer and retail sectors and a few others (including pharmaceutical, health paraphernalia and medical devices) have prospered, most notably in the last mile sector, enabling online retailing to provide a lifeline to work-at-homers. During the panic buying stage of the crisis in Europe and North America, the logistics industry was able to operate, albeit at full stretch, to keep stores supplied, for reasons outlined earlier.

What will happen next in this period of unprecedented disruption to local and global supply chains?

Panic buying has ended, partly due to restrictions placed on the number of purchases by retailers; a limit on numbers of people allowed in shops and partly as a result of consumers working their way through goods already stockpiled. Last mile delivery operations are holding up as e-retailers concentrate on the fulfilment of 'essential items' and push out delivery times for others by days or weeks.

As the lockdown gradually starts to be lifted in late April/early May there is a chance that economies could start to return to normal in which case there would be a surge in demand for orders of goods postponed over the previous 2-3 months. What will this mean in practical terms for the logistics industry?

- Despite the phased end to lockdown, in April/May there will be a sharp downturn in shipping volumes from Asia Pacific to North America and Europe due to orders cancelled by importers in March.
- However, the swift upturn in orders following the release of the lockdown, could mean a spike in shipping rates in June. This is because capacity in the shipping industry would take time to be brought online. Containers would once again start stacking up in ports in China.
- Overall, the shipping industry will be severely impacted in 2020, with volumes expected to drop by a fifth.
- Air passenger services re-commence although passengers will be reticent in flying to many parts of the world. Capacity will gradually ramp up, but 'lumpiness' of demand will create volatile air cargo rates.
- In the warehouse sector, when the lockdown is eventually lifted there will be an initial surge in activity from existing stock locations and then again when shipments from Asia are received and distributed. However, the ensuing economic recession will mean that there are significant available capacities and labour shortages reduce.
- Road freight/trucking. Following the lifting of the lockdown, the road freight industry will enjoy a brief surge in volumes as postponed orders by businesses are finally placed. After this period of 'catch up' there is another downturn due to the onset of recession. Capacity is high, meaning that rates are low. At the same time, fuel prices, although higher than during the crisis, remain below recent averages.

Conclusion

A lot has been written about the sort of recovery which the global economy will experience as the Coronavirus lockdown is finally lifted. Looking specifically at the logistics industry, the coming few months will be exceptionally bumpy with whiplash effects caused by business and consumer buying behaviour creating bottlenecks at every stage of the supply chain. Many manufacturers will increase their inventory levels to protect their supply lines, but then be faced with unpredictable demands. The volatility of the market will impact severely on rates as capacity tightens and loosens in the carrier sectors.

The way the pandemic has played out has been highly unpredictable. This is due not least to the:

- response of governments to the crisis
- effects of the disease and its varying impact on different demographics
- ability of logistics companies to prevent its spread throughout their workforces
- strength of e-retailing and last mile delivery systems
- innate flexibility and resilience of modern supply chains under stress.

Of course, it is impossible to say how manufacturing and non-essential retailing would have been affected from a logistics perspective if demand-side companies had not pre-empted a supply chain crisis by either shutting down unilaterally or by government decree. What is clear is that this response provided the logistics industry with the necessary capacity to keep economies and societies functioning around the world even if only on a basic level.

About Ti

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Ti is a leading UK-headquartered logistics and supply chain market research and analysis company providing:

- Supply Chain and Logistics Market Research Reports
- Global Supply Chain Intelligence (GSCi) online knowledge platform
- Consulting and Market Research projects
- Training, Conferences and Webinars.

Ti has acted as advisors to the World Economic Forum, World Bank, UN and European Commission as well as providing expert analysis to the world's leading manufacturers, retailers, banks, consultancies, shipping lines and logistics providers.

Expertise includes:

- Analysis of the corporate strategies of leading express, freight forwarding and logistics companies.
- Global usage and perception studies of shipper and logistics provider behaviour.
- Micro-economic analysis of key logistics segments: express, freight forwarding, road freight, contract logistics, warehousing, air cargo, shipping and e-commerce logistics.
- Analysis of supply chain strategies employed in industry vertical sectors: pharmaceutical, fashion, high tech, oil and gas, chemical, cold chain, automotive and retail.
- Market sizing and forecasts of key logistics segments.
- Intelligence on emerging markets logistics sectors in Asia, Africa, Latin America, Eastern Europe and Middle East.

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