Introduction

Containment measures to avoid the further spread of the coronavirus (designated as Covid-19 by the WHO) are affecting Chinese and global logistics supply chains. China’s domestic transport sector is disrupted and global logistics operators are seeing their volumes reduced. It will be a challenge to contain the virus with as little interruption to supply chains as possible and to revert to normal quickly.

Containing Measures Are Taking a Toll

In the attempt to contain the spread of coronavirus, the Chinese government enforced a series of stringent quarantine measures that are taking a high toll on domestic and global supply chains.

Hubei province, where the virus started, and Wuhan, its main city, have been on lockdown since the start of the disease. The government extended the Lunar New Year holiday for an extra week, gaining time to contain the disease. However, restarting an economy cannot be done on a dime and many factories have not reopened on the planned 10 February date.

The associated impact on the Chinese and world economy is still uncertain. It could add up to between 1% and 2% of GDP if the coronavirus is successfully contained by the end of Q1 2020. The world economy is facing yet another risk making global recession in 2020 more concrete.

The F&A industry is facing its own set of challenges. The pork and poultry sectors, for example, are seeing decreased demand from restaurants and road transport disruptions across the country. Restaurant closures have hit the consumer foods sector hard, but have also sparked opportunities for e-commerce to deliver groceries and food to Chinese families.

Local and Global Are Connected

Roadblocks

Road transportation is the most affected component of Chinese logistics. Trucks cannot move from one region to another, and drivers have to undergo health checks when entering cities and logistics hubs. Roadblocks are also in place, and truck plates are checked before drivers can exit the highways.

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1 Rabobank has covered this issue since the beginning, with publications dedicated to overall economic impact and impact on F&A, including the corrugated cardboard sector. Links to specific articles are in the main text.
Due to a lack of truck transport, cargoes cannot be processed in time at ports, so goods cannot be transported to their final destination on schedule. Therefore, finished products cannot be shipped timely throughout the country or exported globally.

Transport companies are trying to work around these constraints, but solutions are logistically complex to organize, which is made worse by the fact that authorizations and applications varying from province to province.

Disruptions in transport operations will pose an increasingly larger problem as more factories reopen. If the virus is not contained soon, the repercussions will be dramatic. China is the second biggest global economy (20% of the world’s GDP) and a crucial component of the global value chains for most goods. In our opinion, re-establishing a smooth flow of goods inside China is the key issue to get the system back on track.

**Global Trade to China Scaling Down**

Data is not yet available to evaluate the precise impact in Q1 2020, but all transport types are reporting struggles in relation to China.

Airfreight cargo is often used as a barometer for issues in the global supply chain, due to its fast pace and global reach. The wave of suspended connections to Chinese destinations by commercial airlines and the scaling down of freight operators are indeed a sign that there’s more trouble ahead. The bounce back could be fast once production restarts, though. And operators that kept their connections to China alive can temporarily exploit the rise in traded volumes and new opportunities.

International rail transport to and from China is also on hold for the most part. Wuhan is a major automotive and hi-tech industry hub, connected to Europe via the Belt and Road Initiative (BRI). At the time of writing, all departures are still halted in Wuhan. Other city platforms are slowly restarting train connections with Europe. Rail can bring temporary relief, keeping goods moving eastbound and westbound, but rates are forecast to adapt to the congestion, especially if coronavirus impact keeps some of the lines closed.

For container shipments, we’re seeing lower volumes as a result of the prolonged holidays, which created a shortage of trucks and port personnel during a time in which activities should have picked up. Liners are reporting generalized shortages of reefer plugs at main Chinese ports. Delayed unloading schedules and understaffed port services caused carriers to increase the number of vessels skipping their call at Chinese ports. The approach now is ‘wait and see’ for long-term consequences while adapting to lower volumes. Considering these factors combined, Alphaliner, a shipping market intelligence consultant, stated that 20% fewer containers will have been delivered at Chinese ports in January 2020 compared to December 2019. The total reduction for Q1 2020 vs. Q4 2019 is estimated at 10%, or 6m Twenty Foot Equivalent (TEU), provided that ports can pick up activities quickly.

China Logistics expects volumes transiting at Chinese ports to continue to decline in February 2020 and then pick up again in March 2020 (see Figure 1). The questions now are: will ports have sufficient personnel to service those ships? Will transportation to inland destinations suffice to service those extra volumes? The answers to these questions will determine part of the impact of the coronavirus on global supply chains.

![Figure 1: Throughput in Chinese ports is expected to recover as of March 2020](source: Alphaliner 2020)
Cold Chains: Uncertainties Over Exports to China

At the moment, Chinese-side cold storage at ports is congested, with Shanghai, Ningbo, and Tianjin being the most affected hubs. Authorities are envisaging a congestion charge of more than USD 1,000 per container for the use of reefer plugs, and are advising to use alternative locations at least up to 28 February.

The US and European cold chain sector are closely following developments in China. When asked about the impact of the coronavirus, Lowell Randel, VP of Global Cold Chain Alliance said, “It is definitely an issue that is on our members’ minds. US members that were expecting to ramp up new shipments to China in response to the ‘Phase One’ deal are not yet seeing the anticipated growth due to the challenges from the coronavirus”. Warehouses at port cities in the US are starting to feel the pressure and congestion is likely to happen in some cases.

The slowdown of exports to China is also affecting Europe. Given the relevance that food products (pork and other animal protein) have recently gained in trade with China, European cold chain operators might find themselves in the same situation as their US colleagues. Expected growth might not materialize and, in worse cases, congestion might arise.

If congestion in China persists in the coming months, we might see it reverberate even more throughout the whole cold chain in Europe and the US.

Contain the Infection While Restarting the Economy

Containing the coronavirus while simultaneously allowing domestic and global supply chains to pick up where they left off is going to be a tough nut to crack, and the stakes of a malfunctioning Chinese economy are high.

China has to feed 1.5bn people, which is impossible if trucks cannot simply go from one city to the other and food imports are halted. The recent ASF outbreak showed how difficult it is to supply a market that big in case of major disruptive events.

The Chinese government has already taken measures to re-establish functioning transportation between regions and cities and help stabilize the economy. For example, as of February 17, all toll road charges (including bridges and tunnels) will be waived for all vehicles the coronavirus outbreak is under control.

The Chinese economy is at the core of global supply chains. From giant corporations to small- and medium-sized enterprises, they all source raw materials and semi-finished products from China. We have now had a taste of the scale of the shocks that global supply chains will face if China does not manage to get its logistics system back on track soon. With shipments to China set to pick up, the capacity of ports to increase their throughput and transportation to reach inland China will determine much of the future impact.