The Impact of COVID-19 on Logistics

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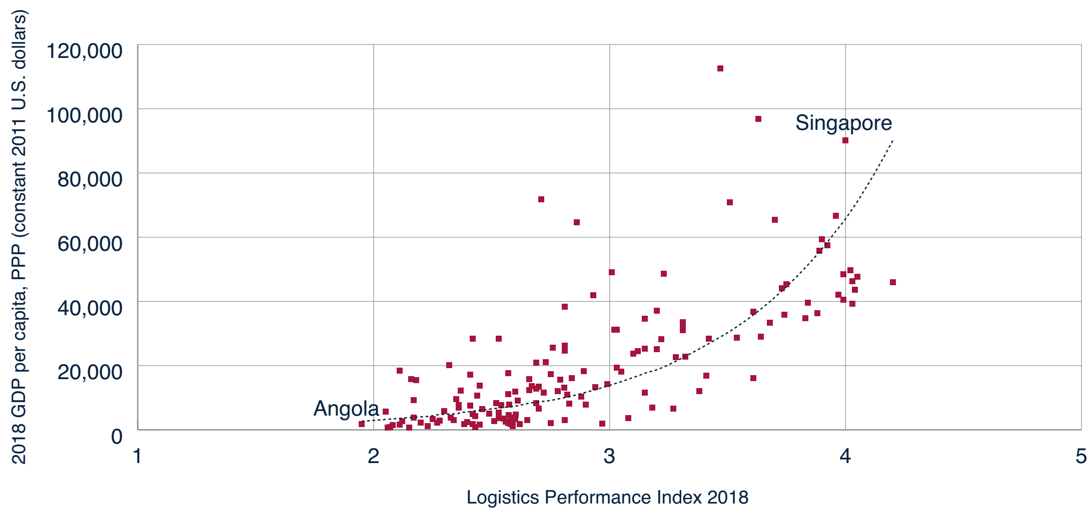
Logistics firms, which are involved in the movement, storage, and flow of goods, have been directly affected by the COVID-19 pandemic. As an integral part of value chains, both within and across international borders, logistics firms facilitate trade and commerce and help businesses get their products to customers. Supply chain disruptions to the sector caused by the pandemic could, therefore, impact competitiveness, economic growth, and job creation.

SECTOR BACKGROUND

Logistics companies connect firms to markets by providing various services, including multi-modal transportation, freight forwarding, warehousing, and inventory management. They are important for global manufacturing, which is complex and multilocational. Apple's iPhone, for example, uses components from more than 200 suppliers in 43 countries. As a result, today's global value chains require greater resilience and efficiencies in the flow of goods between and within countries. These can be achieved by firms outsourcing their logistics functions to third-party logistics services providers, especially those with integrated, end-to-end solutions capabilities.

The relationship between logistics performance and higher incomes (Figure 1) demonstrates the sector's contribution to productivity and economic development. The cost of logistics as a percentage of GDP can be up to 25 percent in some developing economies—as compared to 6–8 percent in OECD countries. Better efficiency in the sector can, therefore, boost competitiveness and stimulate economic growth in emerging markets.

FIGURE 1. **LOGISTICS PERFORMANCE AND GDP, SELECTED COUNTRIES**



Source: World Bank, LPI, 2018.

COVID-19'S IMPACT ON THE SECTOR

The impact of COVID-19 was first felt in China due to the role it plays in global manufacturing (with Wuhan, the epicenter of the pandemic, playing a particularly significant role—more than 200 of Fortune Global 500 Firms have a presence there). China is also a major consumer of global commodities and agricultural products.

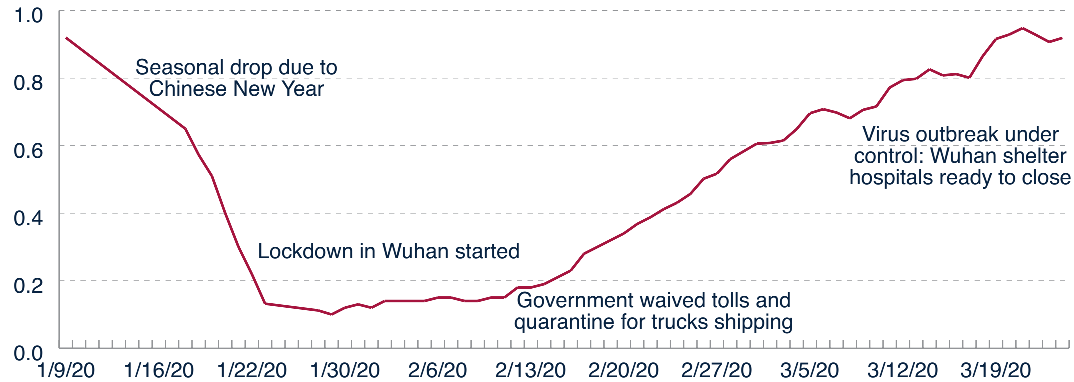
Disruptions to manufacturing in China rippled through global supply chains. Cargo was backlogged at China's major container ports, travel restrictions led to a shortage of truck drivers to pick up containers, and ocean carriers canceled (or blanked) sailings. The resulting shortage of components from China impacted manufacturing operations overseas. Major industries around the world, including automotive, electronics, pharmaceuticals, medical equipment and supplies, as well as consumer goods, were affected.

Although manufacturing picked back up—by end-February, about 70 percent of large industry had restarted operations—a return to full production capacity is unlikely in the short term because of the spread of the pandemic to China's trading partners.

The long-haul trucking sector—which carries more than 80 percent of the country's goods—illustrates the effects of the lockdown on Chinese logistics. Between January 24 to February 26, 2020, the volume for long-haul trucking fell below 15 percent of 2019 levels before recovering to 50 percent by the end of February and 92 percent in March (see Figure 2). The rapid recovery was driven by the ability to contain the virus quickly and the government's policy towards trucking (such as waiving national highway tolls and quarantine requirements for trucks shipping essential goods).

The pandemic spread to the rest of the world, leading to lockdowns and border closures that restricted the movement of goods. Additional protocols (such as social distancing at warehouses) introduced to ensure the safety of workers contributed to bottlenecks for freight. For example, in the European Union, trucks formed 37-mile-long lines on the A4 highway after Poland closed its border with Germany in mid-March. In India, the lockdown created a shortage of truck drivers, which resulted in over 50,000 containers piling up in the ports of Chennai, Kamajarar, and Kattupalli.

FIGURE 2. **2020 FULL TRUCK LOAD (FTL) RECOVERY RATE**



Source: G7 China Road Freight Report.

We can observe the impacts on freight capacity in three key global transportation segments—ocean, land, and air.

- **Ocean freight:** Total container volumes handled at Chinese ports dropped by 10.1 percent in the first months of 2020. Agility Logistics reports considerable constraints to ocean freight around the world, impacting both key exporters, like Brazil, China, India, and Mexico, as well as importers like the European Union. According to DHL, weak demand will continue to affect routes between Asia and Europe, the United States, and Latin America. Consequently, additional blank sailings are expected in the coming weeks.

- **Land freight:** Unlike ocean and air transport, land transport has generally remained partially available globally as roads have remained in operation, except in countries under severe lockdowns, according to Agility Logistics' tracking tool. Trucking capacity is strained because of additional demand for their services—especially food and medical supply transportation—under lockdown, combined with reduced employee availability (due to COVID-19-related restrictions), leading to higher rates. Other economic sectors that require land transport, such as manufacturing, are generally not at full capacity because of lockdowns. As a result, spot road freight rates have fallen in some markets. Demand for rail services has grown because of higher air cargo freight rates, blank sailings, and longer transit time for trucks.

- **Air freight:** Volumes fell by 19 percent in March 2020 due to a sharp reduction in passenger flights (which carry freight as belly cargo) and the drop in manufacturing in China. However, as shippers and governments turn to air cargo for essential goods, air freight rates have increased—some carriers are seeing delays with increased congestion at airports. Mid-April saw an increase in capacity, as well as a recovery in volumes transported (although they are still down, year-on-year). The overall reduction in capacity is greater than the net reduction in demand, which supports higher air freight rates.

The economic recession will be a second demand shock. The full effect of the pandemic on global supply chains is not yet known. As the IMF is predicting a 3 percent contraction for the global economy in 2020, the expected recession will deliver a second hit to demand and, thus, logistics companies, highlighting logistics' exposure to trade, manufacturing, and demand for goods.

Supply chain disruptions and the lockdowns are already affecting logistics companies. Operational constraints are expected to lead to delivery delays, congestion, and higher freight rates. However, not all segments will be impacted equally—companies that serve e-commerce are seeing increased activity as consumers opt for online shopping of essentials, while those that serve other sectors (such as auto and consumer goods) will see a downturn. One mitigant: record-low fuel prices should provide some relief to transport operators. Overall, the uncertainty will exert downward pressure on revenues.

- **The impact is severe for small players:** Small trucking businesses are being severely hit because they tend not to have any backup, recovery plan, or intermittent operation plan. Lack of technology, as well as tools to follow health guidelines (for example, disinfecting deliveries), further complicate their response.
- **Top players are experiencing a strong impact:** In April, both DHL and CEVA Logistics declared *Force Majeure*—a clause that allows contracts to be declared null and void due to acts of God or other unexpected circumstances—on all their contracts due to COVID-19. Other companies' credit metrics are likely to deteriorate, triggering downgrades, as has already been seen in the sector.

RESPONSE TO THE CRISIS

For the most part, governments have responded to the crisis by designating ports, shipping, and trucking services as essential—and thereby exempt from lockdown measures. For example, the Indian government exempted the movement of cargo through ports, supply chains, and the transport of essential commodities from lockdown rules. Although many airports around the world are closed to passenger flights, most are still open to cargo, which can be essential to the COVID-19 response (for example, to transport medical supplies). Closer collaboration between governments and third-party logistics companies has also been necessary to address supply chain bottlenecks and facilitate clearances.

Third-party logistics companies have adopted a range of responses to these uncertainties, including:

a. **New safety protocols:** To protect their staff's health, some companies have introduced new protocols on social distancing at warehouses, disinfecting work areas, or providing protective gear, while giving staff unlimited unpaid time off. However, these efforts, which come at a higher financial cost, cannot guarantee protection against outbreaks in confined warehouses.

b. **Alternative modes of transport:** Many companies are using creative alternatives to their go-to transport modes. Since the reduction of passenger flights has reduced airplane belly cargo capacity, companies such as DHL have used charter flights to transport shipments to and from China. Airlines are also repurposing passenger aircraft for cargo. Some observers are even forecasting a boom for the China-Europe rail as 60 percent of the air freight capacity between China-Europe has vanished.

c. **Adapting service offerings to current demand and safety protocols:** Some larger players have been playing an important role in delivering medical supplies. For example, UPS provided free air transport for two million masks and protective gear to Wuhan in February. Companies are also adapting to demand. Warehouses and retailers are focusing on grocery deliveries since demand is high for essential products, while companies in the last-mile segment are offering no-contact delivery options (some of which include robots).

GOING FORWARD

The recovery and long-term impact of the pandemic on logistics may be affected by adaptions and factors, as described below:

- **Increased dedicated air cargo capacity:** The airline industry is already reallocating fleet to exclusively serve air cargo demand.
- **Increased cargo inspections and cross border control protocols:** Governments have responded to the crisis with temporary trade embargoes and export restrictions for sensitive cargo (such as medical supplies, pharmaceuticals). In the longer term, logistics costs may increase due to tighter cross-border processes and controls fueled by concerns regarding the transmission of diseases.
- **Technology and e-commerce rise:** Logistics has been in the midst of a tech-driven revolution. Companies with robust digital capabilities that allow them to provide cargo visibility/traceability and do business online are at an advantage. This would entail investments in technology, such as the Internet of Things (IoT), cloud computing, automation, and data analytics. In the long term, robotics, drones, and autonomous vehicles might reduce logistics services providers' exposure to labor shortages.
- **Reconfiguration of global value chains:** The pandemic has exposed the vulnerability of extended and complex value chains to production disruptions, particularly in the East Asia Pacific region. As a reaction, many of these supply chains may shorten or diversify through reliance on alternative partners (for example, nearshoring) or intensified efforts to bring home (such as reshoring) strategic value chains. The shortening of supply chains may benefit countries with capable manufacturing sectors and beneficial exports' policy (for example, Colombia, India, and Mexico) to partially substitute China over the medium term. There may also be a trend towards placing additional warehousing capacity or dry ports near demand centers to shorten the time to get goods to market.
- **Recovery prospects will vary by country, subsector:** As logistics is a diverse sector, recovery prospects will vary depending on the length of lockdowns and the duration of the subsequent economic crisis. Large companies with a diversified business (such as multiple clients, serving different sectors in various countries/states) will be better placed to weather the storm.

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