

Policy Primer:

Supply Chain Disruptions and Delays

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Overview:

The effects of global supply chain issues are widespread and are impacting businesses and consumers alike around the world. In addition to managing the challenges of an ongoing pandemic, Ontario businesses must now grapple with significant disruptions and delays to their supply, constraining their ability to meet consumer demand. This document outlines where some of the issues are occurring along the supply chain and offers a few provincial and federal policy solutions to help alleviate the problem.

Unpacking the Complex Nature of Impacted Supply Chain Entities:

1. Origin of manufacturing

- a. Raw material shortages including resin (a necessary component of plastics), polymer and additives, contributing to higher prices and posing challenges for the ability to manufacture certain goods.
- b. Rotating power outages in some countries (e.g. China) prohibiting factories from producing goods at full capacity.
- c. COVID-related capacity limits and safety measures also reducing ability to produce at full capacity.

2. Transportation to warehouses

- a. Shortage of truck drivers and container chassis, as well as rising fuel costs – all contributing to higher prices and delays in moving goods.
- b. Warehouse space and labour shortages.
- c. Both owner-operator truck drivers and asset-based carriers are setting prices given an imbalance of supply and demand, leading to higher rates and cost barriers for businesses needing to move goods.
 - i. Historically, owner-operator truck drivers and asset-based carriers would compete based on price assuming services were equal. Companies needing to have loads moved had leverage and could choose carriers offering the lowest rates. This was happening prior to current supply chain disruptions under what was called a “high truck-to-load ratio” – in other words, there were more trucks than loads, which fostered competitive pricing.
 - ii. The opposite is occurring now under a “high load-to-truck ratio”. There are now more loads than trucks, which gives carriers leverage and the ability to set prices significantly higher.
 - iii. The difference between trucks available and the number of loads needing to be moved is driving an imbalance of supply and demand.

3. Exporting/importing shipping ports

- a. Major congestion and outdated infrastructure* preventing efficient unloading.
- b. Shipping container shortage – many thousands of containers are sitting stranded at sea on ships anchored near jammed-up ports. In principle, there are more than enough containers to handle global trading volumes, but in practice, availability in several parts of the world has become extremely tight due to large volumes of containers being stuck in the wrong place.
- c. Imbalance between filled containers coming into North America vs leaving – some U.S. exporters say shipping lines are refusing to send containers inland from ports to pick up American cargo because shipping lines are trying to get containers – even if they are empty – back to factories in Asia as quickly as possible to take advantage of historically high shipping prices for exports leaving the Asia continent.
 - i. According to the US-based Agriculture Transportation Coalition, 22% of their members' sales are lost because they can't get cargo overseas.

4. Transportation to distribution centres (DCs) and cargo facilities

- a. Truck driver labour and container chassis shortages, along with higher fuel costs, contributing to higher rates and delays in moving goods.
- b. Warehouse space and labour shortages also adding to supply chain disruptions.
- c. Both owner-operator truck drivers and asset-based carriers are setting prices due to an imbalance of supply and demand, leading to higher rates (see note under 2.c.).
- d. Rail network congestion further adding to the inefficient movement of goods.

5. Supply chain visibility and integration

- a. Large, integrated global networks that gain economies of scale at reduced cost through outsourcing manufacturing to emerging economies – and backed by long-term contracts – resulting in supply chains that are not flexible or fast enough to respond effectively to major disruptions.
- b. Lack of supply chain visibility beyond first tier suppliers and access to timely and quality information making it difficult for companies to track products, anticipate and respond to disruptions, as well as proactively develop or execute disaster recovery plans (i.e. global pandemics, natural disaster, geopolitical issues, etc.).
- c. Businesses with an over reliance on a limited number of third parties, including having a strong relationship with only one major supplier, customer, export market, and/or supply chain partner, also impacting supply chain resilience.

*Outdated infrastructure at ports and along supply chain routes is a major factor in disruptions and is not keeping up with the demand. Some ports are operating as they were in the 1980s – on paper and by email with no shipping portals¹.

¹ Shipping portals are websites which allow shippers, consignees and forwarders access to multiple carriers through a single site. Portals provide bookings, track and trace, and documentation, and allow users to communicate with their carriers.

The surge in global trade, e-commerce, and overall demand during the reopening era is a stark contrast to the yearlong decline in orders amid the economic uncertainty and slowing global trade growth seen in earlier months of the pandemic.

It is also worth noting more frequent and extreme weather events are resulting in the damage of critical trade-enabling infrastructure, such as the case in British Columbia where severe flooding has significantly impacted both ports and roadway infrastructure.

The interconnected nature of supply chains across countries and their freight and transit lines results in a compounding effect as disruptions, delays, and bottlenecks multiply. Unfortunately, no single policy can address this entirely.

Provincial and federal governments have a responsibility to investigate pain points along supply chains and make necessary infrastructure investments to ensure their reliability over the long term. In the short term, there is a need for temporary support measures for businesses disproportionately impacted by the supply chain crisis and measures to alleviate components of the problem (such as labour shortages).

Provincial-level actions:

- Strike an emergency task force consisting of government and businesses to explore potential support measures, particularly for small businesses still recovering from lost revenues due to COVID, and unable to compete with larger businesses financially or logistically.
- Develop a local manufacturing sector strategy and diversify procurement and sourcing of components.
- Offer loan guarantees or other temporary financial supports to help smaller businesses afford existing operations while awaiting product delivery, and where possible, to shift to more reliable shippers, supply chain strategies, and technology that helps improve visibility and predictive analytics.
- Launch government education campaigns to promote the transportation and supply chain industries as viable career paths (similar to the current campaign for skilled trades); along with other specialized education pathway programs and incentives in transportation and supply chain sector training.
- Open immigration pathways and agreements for truck driving careers as well as other occupations along the supply chain; Ontario government to reach out to countries with skilled labour forces directly, to facilitate streamlined recruitment for in-demand skilled labour.
- Fund shop local campaigns to ameliorate supply chain congestion.
- Longer-term infrastructure investments:
 - Make improvements to transportation and transit infrastructure writ large, especially around airports, to relieve road congestion and free up capacity for last mile cargo deliveries, which have been exacerbated with the growth of e-commerce and expectations for same-day delivery.
 - Invest in 'Smart Solutions' for infrastructure, air cargo, and supply chain components.

Federal-level actions:

- Conduct a formal supply chain infrastructure assessment to address bottlenecks along the supply chain, especially for ports.
- Develop a national manufacturing sector strategy coupled with an evaluation of a potential Crown Corporation steamship line.
- Other long-term actions:
 - Explore and implement digitization solutions to address the need for more efficiencies and communication throughout the entire supply chain.
 - Direct funding through federal infrastructure programs to help ensure the necessary capacity exists, including runway systems at airports, and expand the availability of logistics and warehousing facilities.
 - Use the Federal National Trade Corridor Fund to:
 - Provide more funding for Canadian airports with large cargo capacity such as Toronto Pearson International Airport.
 - The fund is currently heavily focused on trade promotion and trade diversification, but more thought could be given to including supply chain resilience as a policy parameter as the government rethinks the program.

Helpful Resources:

- Understanding [supply chain entities](#) and [supply chain components](#)
- Illustration of supply chain issues (see [video](#))
- The cause of [America's supply chain disruptions](#)
- Corporations [rewriting production playbooks](#)



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