Supply chain congestion

Anatomy of a global supply chain crisis



Spending Extremes

- In response to the pandemic, U.S. consumer spending drops 30 percent in April 2020, then rebounds sharply later in the year –shocking a supply chain that had throttled back as economies fell into recession.
- When consumers start buying again, spending shifts dramatically from travel and entertainment to clothing, computers and household goods. Shipping demand skyrockets.

Manufacturing Whiplash

- As the pandemic spreads through Asia, factories close in places like China, Korea, Taiwan and Singapore that produce goods for U.S. consumption.
- Factory shutdowns and travel lockdowns halt shipping and disrupt the global supply of shipping containers that will be needed for a late-2020 recovery.
- When orders surge for medical equipment and PPE, Chinese factories unexpectedly come back online. The supply chain is unprepared.

Shipping Volatility

- Pre-pandemic, seagoing carriers cut capacity as the industry consolidated and reacted to new tariffs and a global recession.
- As economies suffer in 2020, carriers idle even more vessels and cancel additional routes.
- When demand surges, ships aren't positioned to respond.
- Demand for import cargo to the U.S. is so high, some shippers refuse to fill empty containers with U.S. exports before returning to Asia.

Port Worker Shortage

- Quarantines and illness keep thousands of port workers off the docks in 2020.
- At one gateway port, 1800 port workers are (temporarily) sidelined due to COVID-19 protocols.
- The industry's urgent call to prioritize port workers for COVID testing and vaccination goes unanswered.

Container Scarcity

- The pandemic shutdown in Spring 2020 leaves 25 million containers in the wrong place to meet resurgent demand later in the year.
- Container manufacturers – predicting a yearlong drop in demand – slash production.
- North America faces a 40% container imbalance – for 100 containers that arrive, only 40 are exported.
- A shortage of container chassis for semi trucks, caused by 2019 tariffs and aging equipment, compounds the problem.

Trucking Shifts Gears

- When the pandemic hits, several large trucking companies go bankrupt, disrupting an industry that moves 71% of U.S. freight.
- 100,000 trucking jobs are lost in 2020.
- Remaining truckers are transferred from retail to priority industries such as food/beverage and cleaning supplies.
- Quarantines in China also lead to driver shortages that trap consumer products with their overseas manufacturers.

Fewer Flights for Freight

- Shippers typically use empty cargo space on passenger flights – space that disappears when air travel all but ceases during the pandemic.
- Air freight volume rises 50% over 2019. Airlines fly at peak freight capacity – some even re-open dormant overseas passenger routes just to carry cargo – but the industry can only meet 80% of demand.

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What can policy makers do?

During a heart attack, there is little a victim can do. But it should serve as a wake-up call for a change in lifestyle. Similarly, the current supply chain crisis should prompt lawmakers to take steps to address the long-term health of the supply chain. Here are some things policy makers should consider:



- **Policy maker engagement**
  - Regular executive engagement with NWSA CEO
  - Formation of a Supply Chain Caucus in the legislature
- **Planning**
  - Encourage WSDOT to engage in a more robust freight planning effort analogous to what the Canadian government did with their ports rather than a "check the box" exercise that summarizes current conditions or funded projects.
- **Protection of industrial lands**
  - Development of a statewide industrial policy that protects industrial lands and freight corridors from incompatible uses.
  - Follow up study of container port element—have the cities of Tacoma and Seattle fully implemented in regulation their container port elements? What is needed?
  - Additional funding/increased state share for Remedial Action Grants to allow for faster cleanups and putting properties back into productive use.
  - Financial incentives for communities to host warehousing—Streamline Sales Tax mitigation is helpful—is there more that can be done?
- **Transportation investments**
  - I-5/Port of Tacoma Road Interchange- Phase 2 (Fife) ($35M)
  - West Seattle Bridge repair (Seattle) ($25M)
  - Fishing Wars Memorial Bridge improvement (Tacoma) ($180M)
  - East Marginal Way improvements ($25M)
  - Spokane Street Corridor improvements
  - Canyon Road Regional Connection Project ($50M)
  - Funding for cities of Seattle and Tacoma to upgrade SODO and Tideflats roads to heavy haul standards
  - Increased FRIP and FRAP to support short line railroads like Tacoma Rail and to provide for realignment of North Intermodal (NIM) rail yard in Tacoma
  - Remove the ban on FMSIB from issuing a call for projects
- **Other infrastructure funding**
  - Hobbs' port grant program or a minor works/repair funding source similar to what is granted to universities to allow for investments in non-traditional infrastructure projects (reefer plugs, fender repairs, wharf repairs, berth dredging)
  - Terminal 5 Phase 2 reefer plugs
  - Pierce County Terminal reefer plugs
  - Port of Tacoma Off-Dock Container Yard Project ($15M)
  - Terminal 5 Gate improvements
  - Terminal 18 gate redesign
  - Port Community System and other IT investments to allow for digitalization of cargo movements

What can policy makers do? (continued)

- **Trucking**
  - Expanded truck-parking through the state of Washington
  - CDL accessibility
- **Hours of operation**
  - Financial incentives for extended gate hours throughout the supply chain (marine terminals, warehouses, rail etc.)
- **Environmental**
  - Don't reinterpret Federal Clean Water Act and apply non-conforming stormwater standards to docks
  - DOE stormwater grant for Port of Tacoma Off-Dock Container Yard ($2.8 M)
  - Shorepower infrastructure at Terminal 18 ($28 M)
  - Remedial Action Grants
  - Funding for demonstration projects for ZEV cargo handling equipment
  - Financial incentives for clean truck program
  - South Harbor Electrification Roadmap Project ($330K for study)
  - Funding for electrical distribution gride upgrades directly in support of port electrification
- **Workforce development for logistics trades**

