Freight Transportation Outlook

Presentation to the Commodity Supply Chain Table
Transport Canada, Transportation and Economic Analysis

Ottawa Ontario
June 2020

Transport Canada Transports Canada

Canada

Passenger transportation has declined significantly

Aviation

- 97% drop in domestic passenger departures.
- Air service to domestic communities is becoming thinner and more fragile.
- Air Canada and WestJet have reduced domestic service. Porter has stopped flying entirely.

Public Transit

- 80%-90% ridership declines reported by major transit agencies.

Inter-city bus and rail

- 50-100% decline in inter-city bus ridership reported by operators across network.
- Several inter-city bus operators have suspended service.
- VIA Rail passenger counts down 95% from 2019 levels. Ocean and Canadian transcontinental services cancelled until November.

Ferries

- 70%-90% reduction in passengers for many ferry operators across the country.

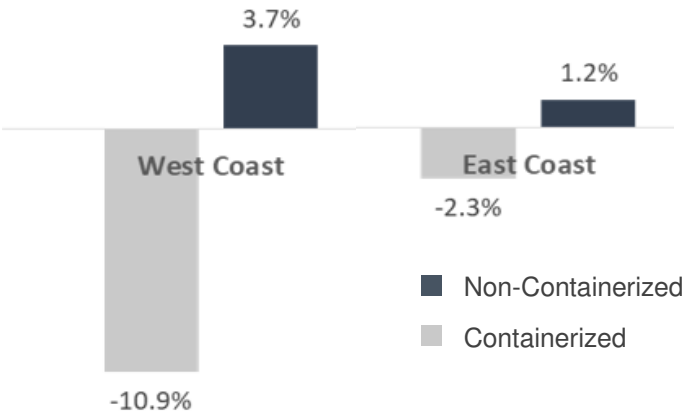
The freight transportation system remains fluid and responsive to changes in demand

Rail Traffic Volumes
(Year to date 2020 vs Year to date 2019)

Year-to-date (January 1 to May 24)	
Containers	**-9.7%**
Total Bulk commodities	**-6.6%**
Grain	+8.3%
Potash	+0.5%
Forest Products	-13.1%
Petroleum Products	-3.7%
Total Traffic	**-8.2%**

Source: Class I Railways

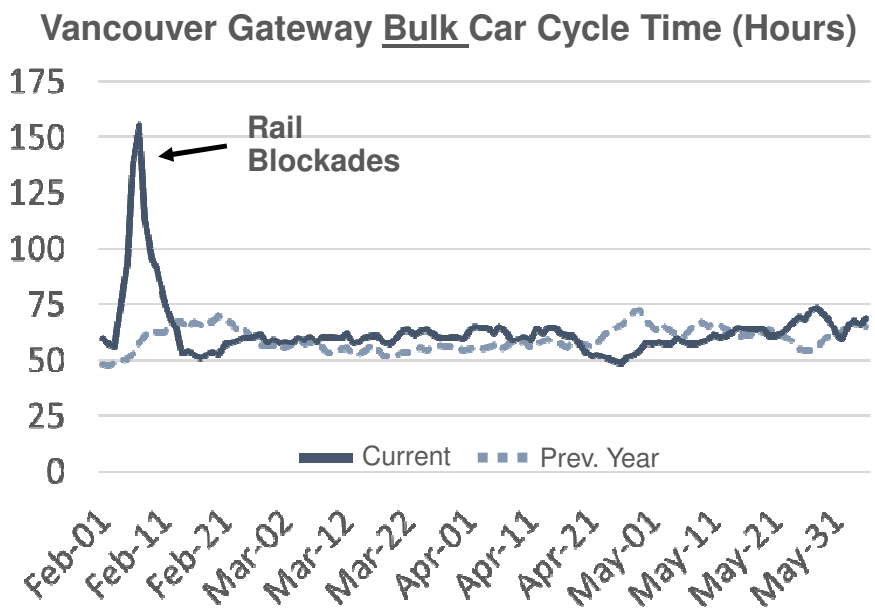
Port Cargo Volumes
(Q1 2020 vs Q1 2019)



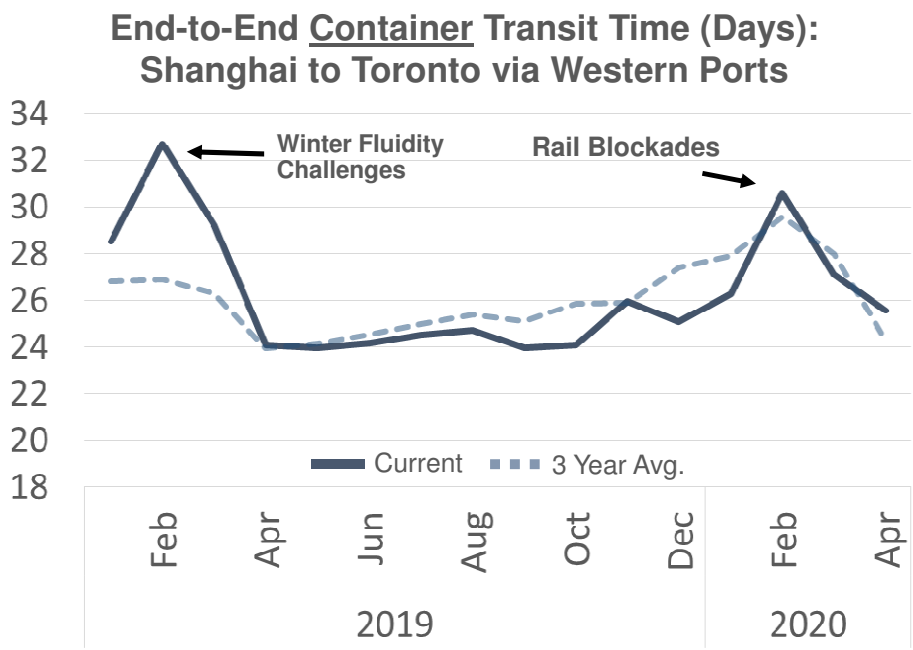
Sources: Port Authorities
West Coast – Prince Rupert, Vancouver
East Coast – Montreal, Halifax

- Rail traffic decline was more pronounced for key commodity/sector, such as energy and non essential goods (e.g. auto and parts, home furniture, clothing, etc.).
- Canadian port up for key essential bulks in Q1 (e.g. grain, fertilizer, potash, forest). Inbound container traffic in Canadian ports down, reflecting slower domestic demand.

Supply chain corridors have been less impacted by Covid19



Source: Port of Vancouver Supply Chain Visibility Dashboard



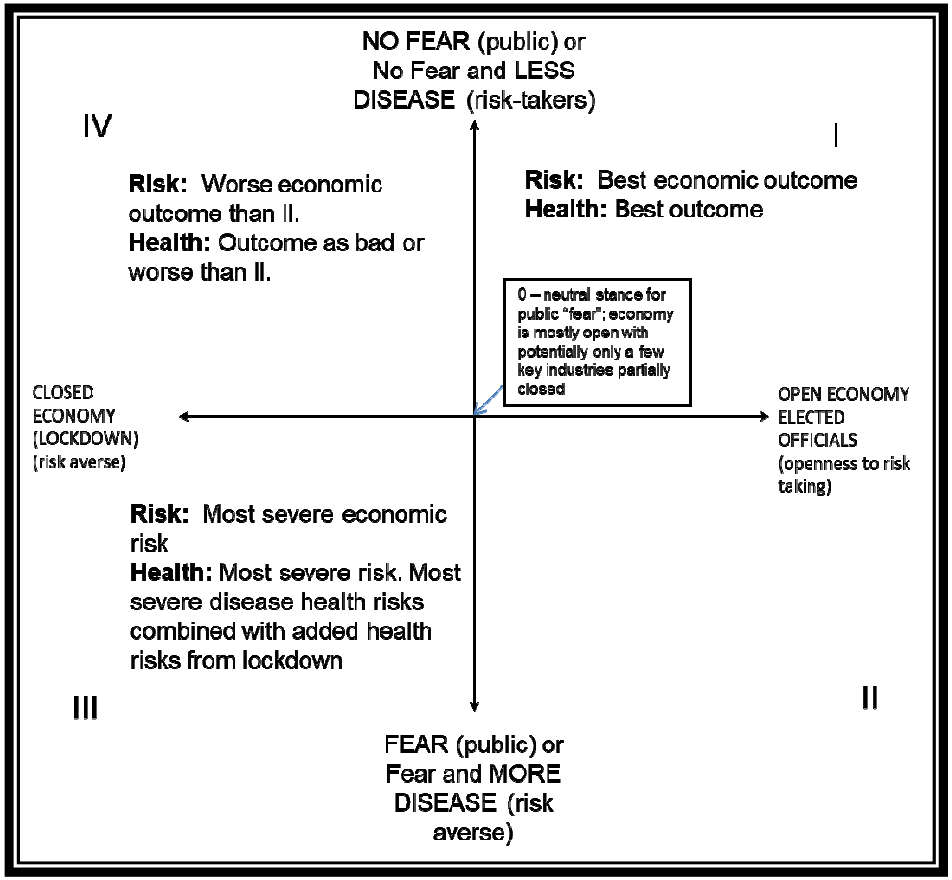
Sources: Port of Vancouver, Port of Prince Rupert, CN Rail, CP Rail, Transport Canada

- Given excess capacity in all modes, expected surges in transportation demand should not translate into substantive fluidity challenges for key Canadian supply chains.

Short-term prospects are very uncertain

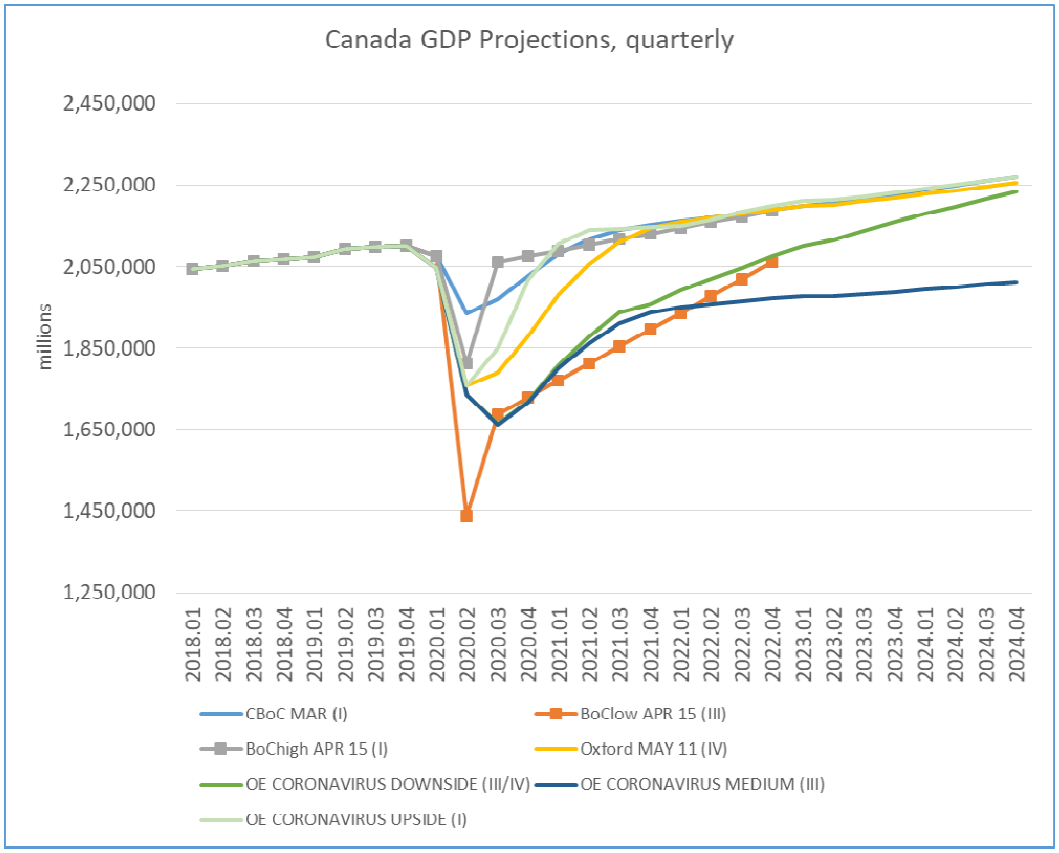
Path for economic recovery from "lockdown" is unknown. But there are some key considerations:

- Public health:
  - Until a vaccine is widely available, public health measures will continue to focus on limiting the spread of COVID-19.
  - Potential for more regulation globally, nationally and provincially on the movement of people.
  - Travel restrictions, physical distancing etc. may severely depress speed of recovery.
  - A second wave of the virus is very possible.
- Path (U, L, W, ✓) of recovery:
  - Will be heavily influenced by consumer sentiment and people's level of fear
- Some effects will be transitory while others will lead to a "new normal":
  - Essential vs non-essential commodity supply chains
  - Passenger vs freight transportation demand



Recovery scenario cover a broad spectrum

- Private and public forecasters are examining both optimistic and pessimistic views of the "new normal" based on public health directives, consumer behaviours, as well as other economic factors (energy markets, trade tensions, etc.)
  - Growing consensus that global and domestic economy will be severely affected in first half of 2020 and recovery will start only gradually in late 2020.
  - Full recovery of previous production peaks not expected before 2022.
- TC's Preliminary 2020 Reference Case is consistent with Oxford Economics May 11, 2020 Baseline
- TC's COVID Downside scenario is consistent with Oxford Economics Coronavirus Downside scenario



CBoC – Conference Board of Canada
OE – Oxford Economics
BoC – Bank of Canada

Global growth seriously hit by ongoing Covid19, but long-term prospects little changed

Recent Events

- ***US:*** Consumers have cut spending for the second straight month in April, while May jobs uptick was noted with higher dependence on government support. Slow recovery in economic activity with spike in new coronavirus cases have been reported as states reopen.
- ***Euro:*** Massive damage on the economy from lockdowns in Q1 and Q2, with rebound expected as quarantines are being lifted in several countries. Large falls in France and Spain, followed by Italy. Incipient gradual recovery, after huge drop in April.
- ***China:*** Following February's sharp contraction, the economy continued recovering in May. Compared to similar period in 2019, May industrial output increased, with consumption lagging behind, fears of second wave of the virus weigh on consumer demand. Beijing outbreak led to school closures and flight cancellations this month.

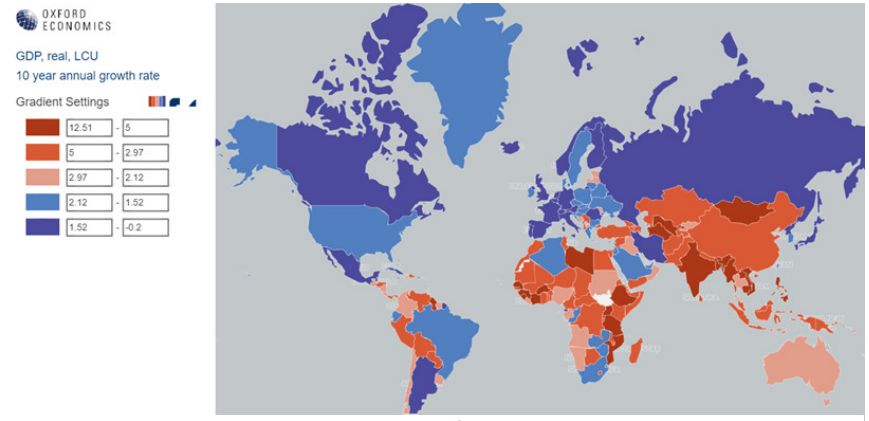
Short-term Outlook

- ***US:*** Projected rebound in consumer and business activity, but risks remain from reopening too soon, loss of jobs and high debt.
- ***Euro:*** Collapse in spending, investment and exports in 2020. No return to pre-crisis levels is expected before 2022.
- ***China****:* Ongoing global recession to weigh on China's recovery, but growth relies on domestic demand, with GDP projected to grow slightly in 2020, followed by a rebound in 2021. Challenges persist from ongoing tensions with the U.S. and India, and short-term risk of higher impact of new coronavirus outbreak.

Long-term Outlook

- Advanced economies to slow as effects from Covid-19 add risk of long-term damage.
- Developing countries will realize faster growth. However, growth will be unbalanced.
  - Africa will realize strong growth as growing populations and a strong resource base are brought to bear. Political instability, overreliance on primary sector, inequality and debt remain hurdles to overcome to achieve full potential.
  - Asia will continue to grow at a rapid yet slower rate. In particular, China will begin to decelerate as gains from integration to global trade slowdown and working age population declines.
  - India, Cambodia, and Mongolia will emerge as top growth Asian economies.

World GDP Outlook 2029[1]



GDP Outlook[1]

	2019	2020	2021	2029
Asia	4.4%	-1.8%	7.2%	3.7%
Africa	3.5%	-3.9%	4.2%	4.0%
Oceania	1.9%	-5.1%	3.9%	2.6%
North America	2.1%	-6.3%	6.4%	1.7%
Canada	1.7%	-9.1%	9.8%	1.6%
Europe	1.5%	-7.2%	6.3%	1.2%
South America	1.0%	-7.0%	5.8%	2.3%
World	2.5%	-5.1%	6.5%	2.5%

[1]Oxford Economics, 2020-06
[2]WTO Global Trade Indicator, 2020-05-22

Consolidating access to key trade markets and pursuing trade diversification even more critical in post Covid19 environment

Top Canadian Trading partners [3]

- In value terms the US is by far the most important destination for commodities shipped by rail.
- Shipments to Asia and Latin America represent the second and third most significant destinations.

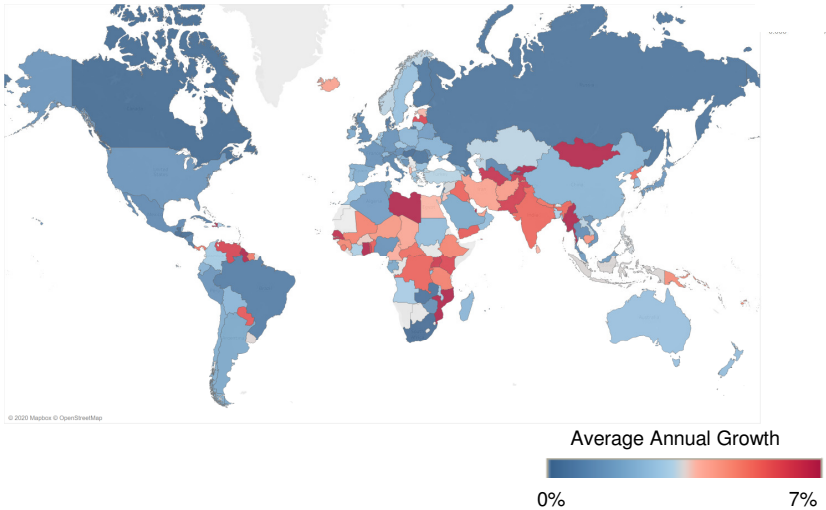
Recent Events[2]

- The WTO trade indicator shows sharp trade contraction into Q2.
- The automotive products index is the weakest of all. Declines in container shipping and air freight from Covid-19 mitigation measures are reported. Only electronic components and agricultural raw materials show stability.
- Trade was relatively weak by end of 2019, probably not yet related to Covid-19, which hit most economies earlier this year.
- World merchandise trade could decline between 13% and 32% in 2020, depending on duration of pandemic and public policy.

Canadian Trade Outlook

- Canada has been involved in several trade deals over recent years which may alter the long-term trade landscape (CETA, CPTPP, CUSMA).
- Long-term damage from current crisis and protectionist trade policies could reemerge and hurt Canada trade, even under the CUSMA.
- Long-term import outlook for primary trading partners will largely align with economic growth. Developing economies will see more significant gains, while advanced economies lag behind.
- Long-term the US will remain Canada's most significant trading partner, but sluggish investment in both the energy and non-energy sectors is expected to only gradually improve.

Canada Bilateral Trade Outlook 2029[1]



Canada Bilateral Trade Outlook[1]

	2019	2020	2021	2029
Asia	-4.55%	-1.11%	3.03%	2.50%
Africa	2.97%	3.56%	0.28%	2.89%
Oceania	4.41%	-5.05%	2.54%	2.65%
North America	-3.03%	-2.38%	0.84%	1.27%
Europe	2.05%	-1.09%	0.07%	1.58%
South America	-0.10%	5.18%	3.11%	3.29%
World	-2.62%	-1.86%	1.19%	1.59%

[1]Oxford Economics, 2020-05
[2]WTO trade outlook indicator, 2020-05
[3]Transport Canada Trade Database, 2019-04-16

Macroeconomic Implications and Risks[1]

Short-term Outlook Implications

- Slowing trade from impact of Covid-19 mitigation measures is impacting demand for key commodities, especially commodities which are highly dependent on mobility and health of the global economy.
- Depreciation of the Canadian dollar may not necessarily translate into increased demand pressure from exports of certain commodities depressed by ongoing health crisis, and may limit imports of others.
- The direct negative shock from Covid-19 measures and global economic shock to labor market is expected to put downward pressure on domestic consumer expenditures.

Short-term Macroeconomic Risks

- **Coronavirus pandemic:** the world economy has entered a sharp recession due to the coronavirus outbreak. Premature reopening prompting longer lockdowns and the potential for spike in new cases leading to a second wave of outbreaks later this year could extend and deepen its effects.
- **Weaker income and consumer spending:** Lockdown measures are amplified by a collapse in financial markets, ultra-low oil prices and a climate of fear. Job losses and fear of the pandemic and the uncertainty climate are expected to weigh on income and consumption.
- **Fiscal stimulus:** fiscal spending cannot prevent the crisis, however, do augment the chances of a rebound in 2021. Recovery may be restrained by a climate of fear and a low fiscal multiplier or a slow implementation of the stimulus measures.
- **Protectionism:** Existing tariffs and retaliation, if escalating again in times of crisis, could worsen the negative outlook.

Long-term Outlook Implications

- Unbalanced global growth will result in changing centers of trade for the world and Canada.
- This will result in more opportunities for exports to Asia rather than to Europe and the US.
- Similarly, changing poles of growth will also translate into more products originating from Asia.
- While Asia will to be a significant driver of trade growth, existing trade partners and protectionism trends will still play significant role for the final routes of Canadian imports and exports.

Long-term Macroeconomic Risks

- **Markets:** rising indebtedness, tightening financial conditions, and financial market volatility.
- **Geopolitical:** rising political tensions amongst major powers, growing protectionist attitudes, and breakdown of relationship norms and institutions resulting in weaker cooperation.
- **Environmental:** extreme weather events, policy failure, and loss of bio diversity. These factor are noted to be most impactful and most likely to occur.
- **Technological:** fake news, identify theft, data breaches, loss of privacy to companies, and cyber attacks to critical infrastructure.

[1]Oxford Economics, 2020-05

Commodity Transportation Outlook Overview

[1, 2, 3]

Short-Term Outlook

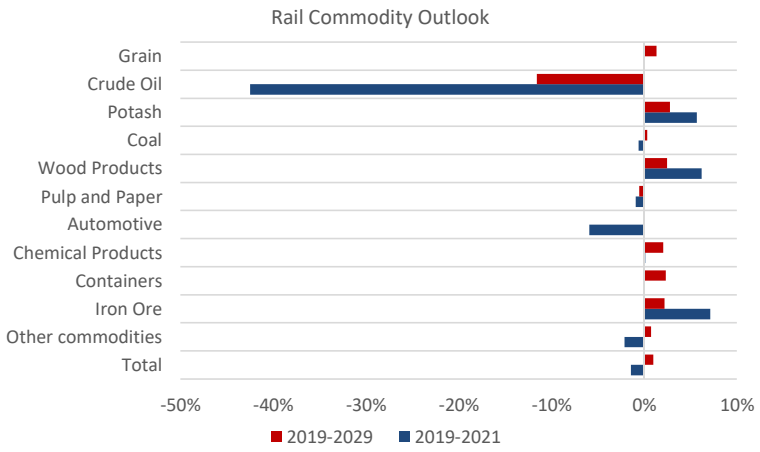
- Overall **rail and marine** tonnage will decline in 2020, and return to near 2019 level. However, commodity experiences will differ considerably.
  - Crude oil, automotive, wood products, and containers will be the most sensitive to the lock-down in 2020. Crude oil and automotive, highly dependent on Covid's impact, will not experience the recovery forecast in 2021 for other commodities.
  - Grain, potash, coal, and iron ore will be relatively unaffected by COVID in 2020 and will experience growth or remain flat in 2021.

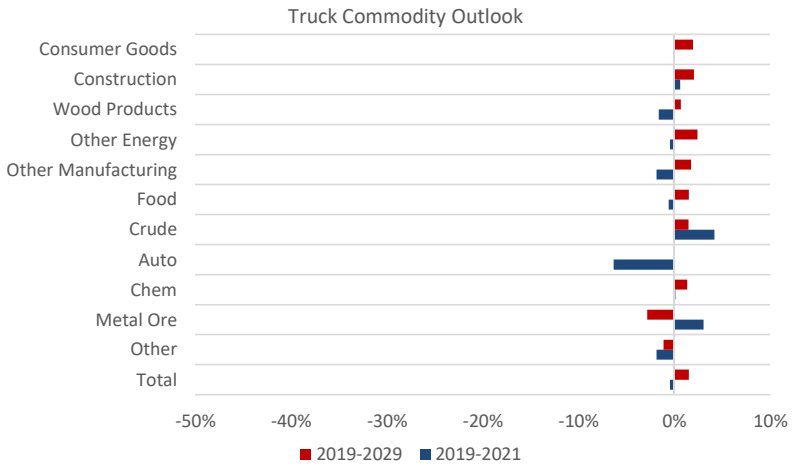
- In general, following a drop around 10% in 2020, **truck** shipments will recover by 2021. While the 2020 impacts are diverse, 2021 recovery patterns are similar across commodities, with the exception of other energy products, autos, and metal ore.

Long-Term Outlook

- Long-term growth for **rail** is expected to be moderate (around 1%), while **marine** sees somewhat stronger growth (1 to 3%).
  - Rail shipments of crude will remain depressed in the long run.
  - Potash will emerge as the fastest growing commodity. Other commodities experiencing growth include grain, wood products, chemicals, containers and iron ore.

- Truck shipments will grow at a modest pace (around 1%), with broad based growth across most commodities. Metal ore, autos, and wood products will stand out as an exclusion with minimal or negative growth.





[1] Transport Canada Rail Database, 2019-01
[2] TCOD, 2019-06
[3] P5 CPA, 2019

Implications of Short-term Outlook: National[1,2]

Rail

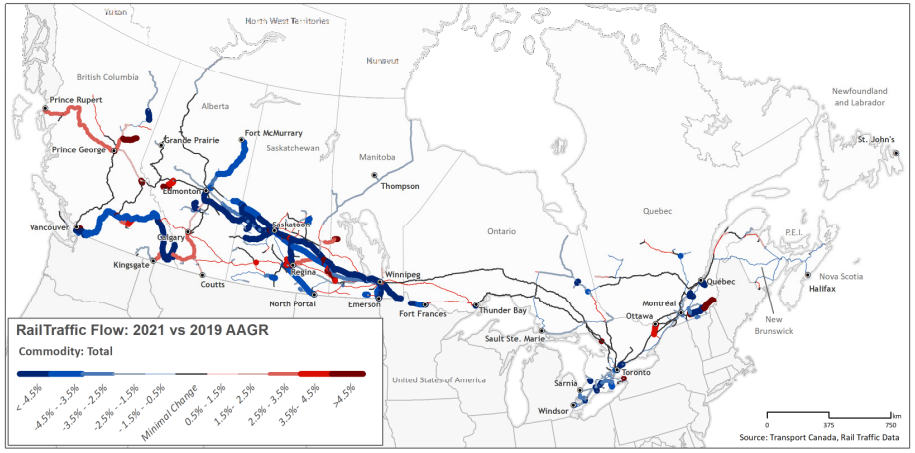
- Domestic demand for rail transportation (-1.4%, annually on average) will be dragged down by the precipitous declines of crude oil (-42.5%) and LNG/NGLs (-6.8%) movements. Potash (5.7%) and iron ore (7.1%) will be amongst the few bright spots as the world economy recovers.
- Cross-border traffic will be depressed (-6.2%), another casualty of collapsing demand for energy.

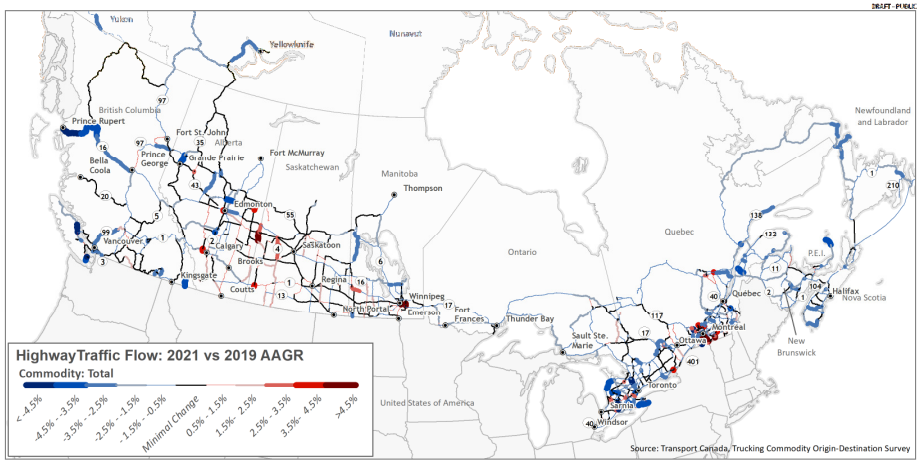
For-hire Trucking

- **In 2020**, all regions will realize similar declines -8% to -10%. Most commodities shipments will retract. However, energy products will stand out owing to slightly negative or positive outlook by region.
- **In 2021**, central and eastern Canada are expected to return to slightly below 2019 shipment levels. While western Canada will realize shipments similar to 2019 volumes.
- While most commodities will return to shipments slightly below 2019, shipments of construction, consumer goods and energy are expected to be above 2019 levels.

Key Ports

- Traffic down in 2020, especially container traffic, but coal, grains and potash expected to grow. Recovery is forecast for 2021.





[1] Transport Canada Rail Database, 2020-05
[2] TCOD, 2020-05

Implications of Long-term Outlook: National[1,2]

For-hire Trucking

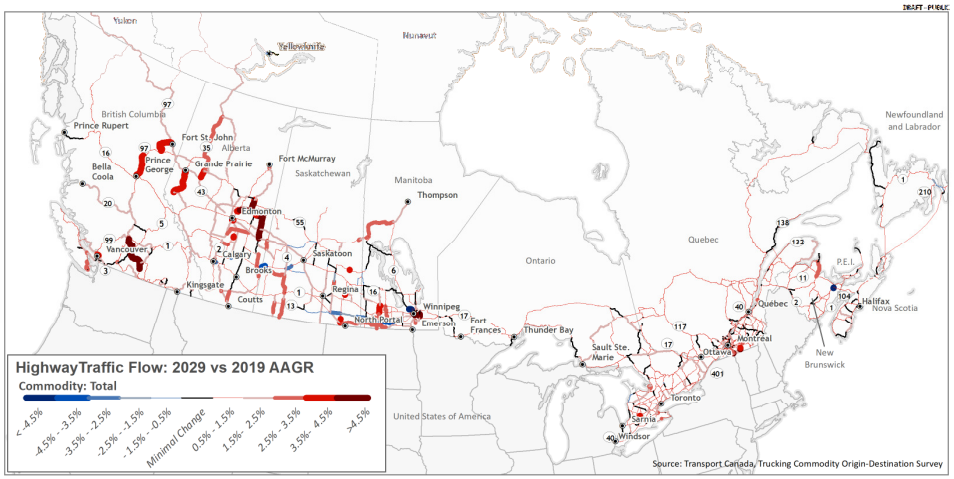
- Growth will continue to be skewed toward the west (1.6% annually on average). While the east will see tepid growth (0.8%). Central Canada (1.0%) and cross border (1.6%).
- Growth will be broad based across most commodities.
- However, other energy products, other manufacturing, and construction materials stand out as sources of rapid growth.
- Growth will be weighed down by poor performance in wood products, chemicals and autos.

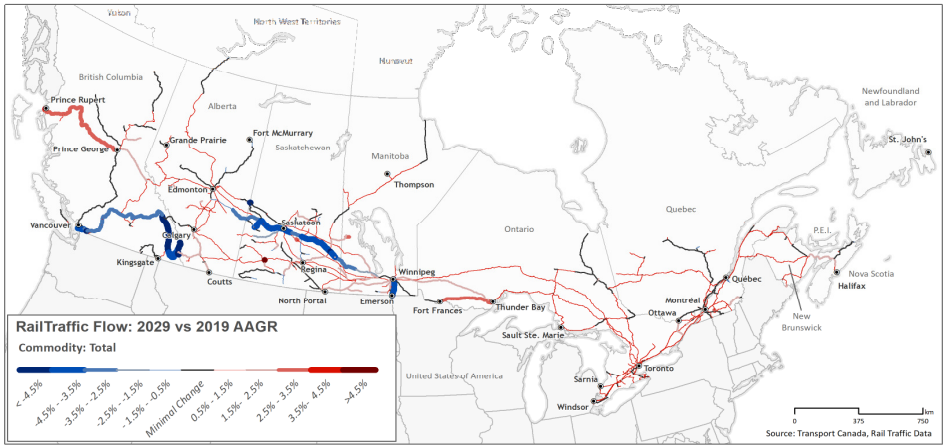
Rail

- Long-term expectations for network-wide growth are mediocre (0.9%) as growth in containerized goods (2.1%), grain (1.5%) and potash (2.5%) will be partially offset by the steep decline of crude oil shipments (-10.5%), replaced by new pipeline capacity.
- Outlook for rail activity around the ports is slightly stronger (1.4%), owing to moderate bump in grains (1.9%) and containerized goods (2.2%) movements.

Key Ports

- West Coast ports will continue to experience strongest growth given exports to Asia, with downward revision for Prince Rupert with regards to energy markets.
- East coast ports will realize more moderate expansion as local consumption remains tepid.





[1] Transport Canada Rail Database, 2020-05
[2] TCOD,

Western network expected to lead growth through next decade[1, 2, 3]

For-hire Trucking

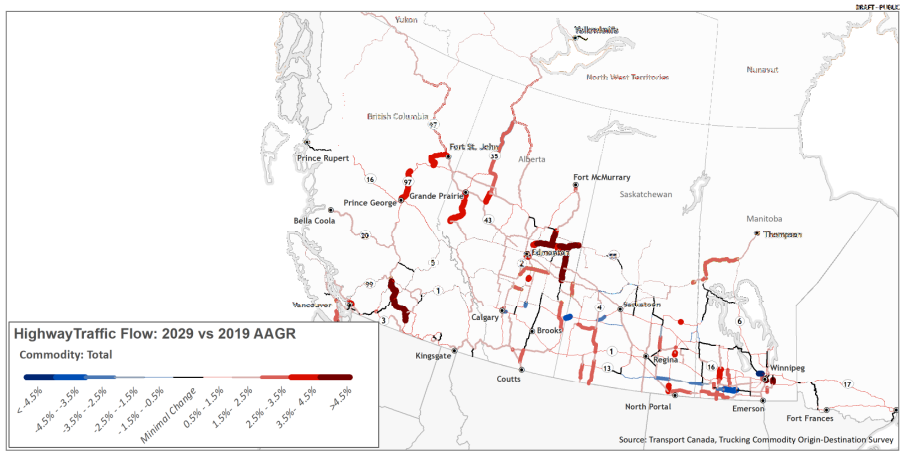
- Overall, the region will grow 1.6% annually on average. Growth will be lead by Alberta (1.9%), Saskatchewan (1.7%), and BC (1.6%).
- Manitoba will remain relatively flat, owing largely to broad-based growth countered by continued decline in grain and the production of metals.
- In general, the region will see strong growth owing to strength in energy products, consumer goods, and construction materials.
- Other manufacturing, wood products, crude oil, and other commodities will see more moderate growth.

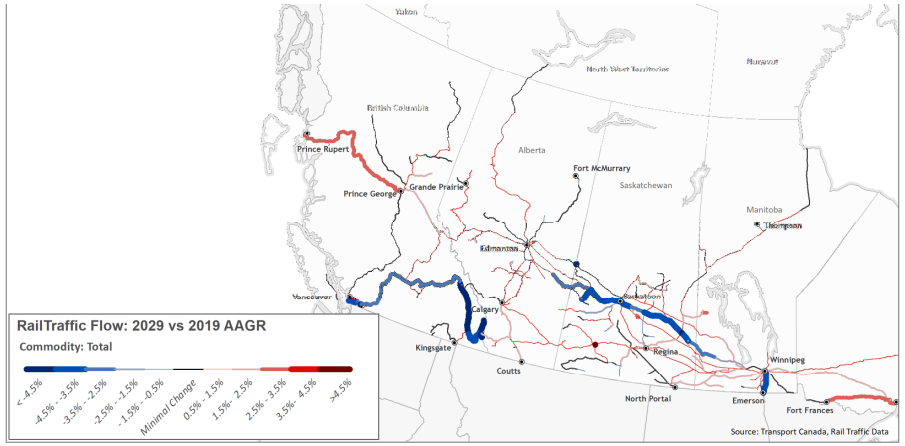
Rail

- In the long run, both imports (2.1%) and exports (1.5%) will increase at the western ports annually on average. Grain (2.4%), containerized goods (2.4%) and potash (2.9%) will be the main drivers.
- The region as a whole will experience tepid growth of traffic (0.8%) on the back of increased grain (1.6%), potash (2.5%) and containerized (2.2%) shipments. Crude oil will suffer from a consequential decline (-10.8%).

Key Ports

- **Vancouver:** Volume overall should increase by around 28% (2029 vs 2019 decade absolute growth).
- Trans Mountain is assumed to be completed in 2023 and its capacity would be almost fully used after 2025.
- **Prince Rupert:** Growth is expected to be around 31% (2029 vs 2019).
- Due to uncertainty in energy markets, the level of exports of propane and petroleum products have been revised substantially downward.





[1] Transport Canada Rail Database, 2020-05
[2] TCOD,
[3] P5 CPA,

Central network limited by tepid population & income growth [1, 2, 3]

For-hire Trucking

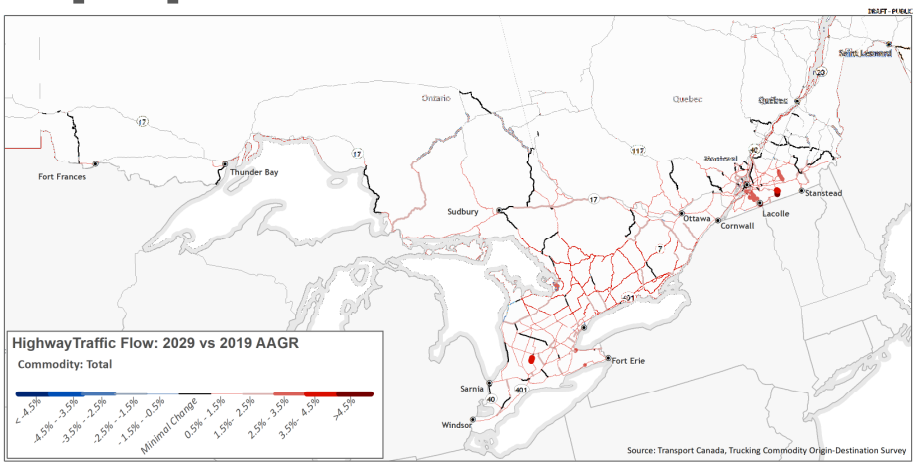
- Ontario will continue to lead the region with stronger growth (1.2%) while growth in Quebec remains moderate (0.7%).
- Consumer goods and construction materials will be the strongest growing commodities in the region.
- Manufacturing, food, and wood products will lend moderate support to growth.
- Cross border trade will grow in line with within-region shipments.

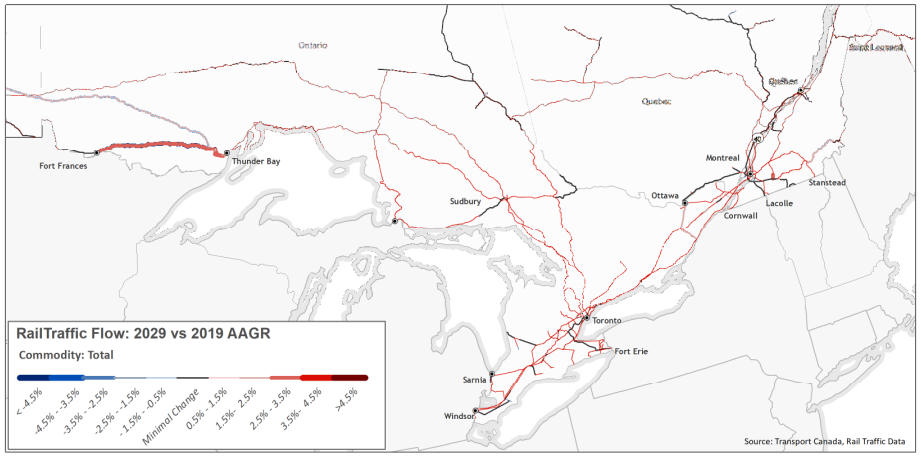
Rail

- Over the 10-year period, rail volume will experience a slight uptick (1.1%) in Central Canada. Coal will be the worst performer by a significant margin (-13.0%).
- Rail traffic at the ports will grow just a bit faster (0.6%), with movements of containerized goods (1.7%) from the port of Montreal leading the way.

Key Ports

- **Montreal**: Tonnage forecast to increase by 11% over the long-term (2029 vs 2019 absolute growth). Containerized goods tonnage expected to rise by 19% (2029 vs 2019).
- **Thunder Bay:** Tonnage should not change over the next 10 years, as the volume of grains will remain the same.





[1] Transport Canada Rail Database, 2020-05
[2] TCOD,
[3] P5 CPA,

Eastern network contends with excess capacity [1, 2, 3]

For-hire Trucking

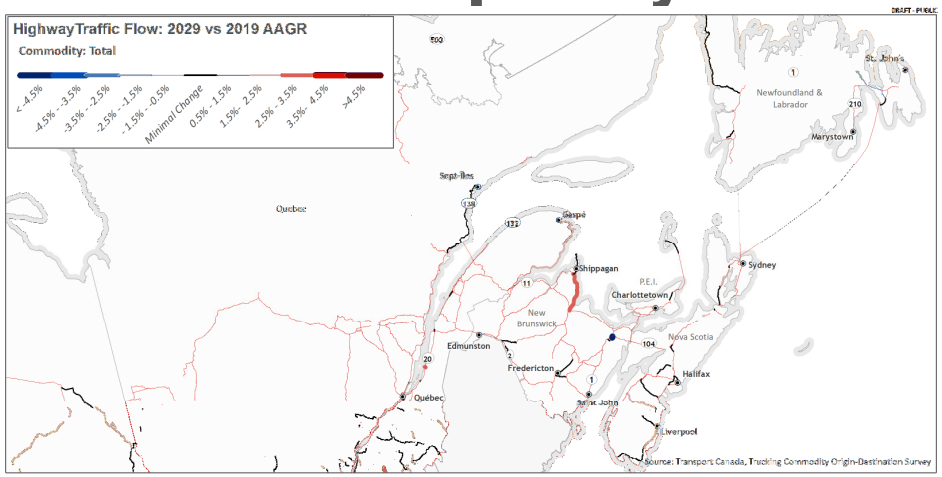
- The region will maintain its slow growth trajectory (0.7%).
- Newfoundland (0.4%) will continue to lag behind the other provinces owing to broad-based sluggish growth.
- Other manufacturing will be the only commodity to see gains above 1%. Otherwise, commodities will grow in the 0.7% to 1% range.
- Trade with other regions will grow at a faster rate than within-region traffic.

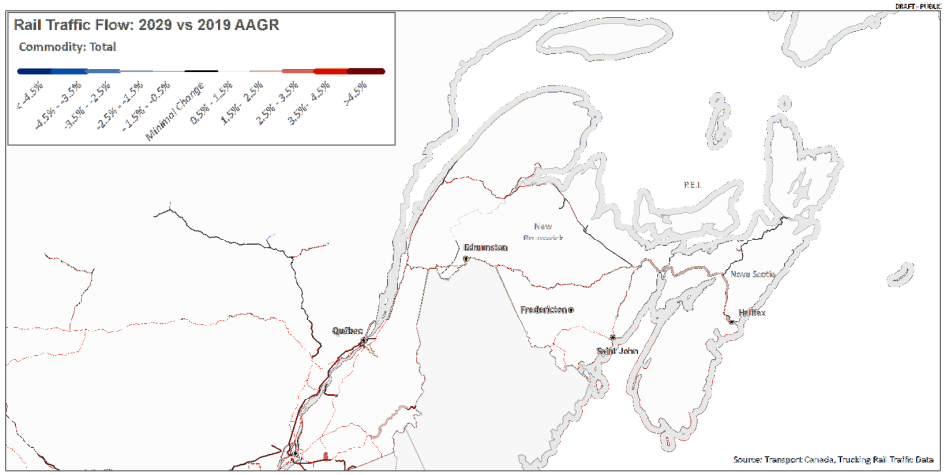
Rail

- Rail activity will expand weakly (1.3%) over a 10-year horizon. Iron ore (2.1%) and containerized goods (2.1%) again being the drivers.
- For the Port of Halifax, long-term prospects are reasonable (1.8%), with containerized goods (2.3%) showing the biggest upside.

Key Port

- **Halifax:** The volume at the port is expected to increase by 13% (2029 vs 2019).
- More energy efficiency and a more modest economic and population growths will reduce demand for petroleum products.





[1] Transport Canada Rail Database, 2020-05
[2] TCOD,
[3] P5 CPA,

COVID Downside Short-term Implications

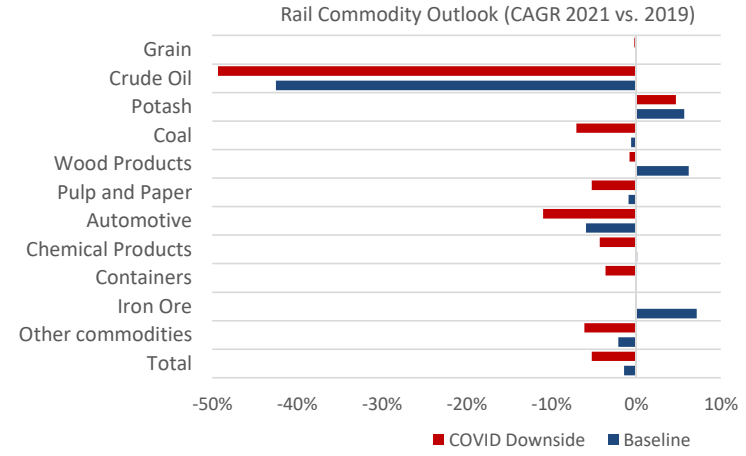
[1, 2, 3]

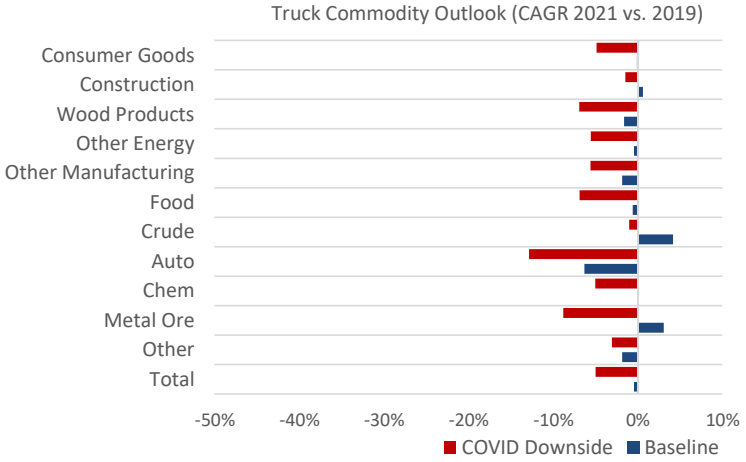
COVID Downside Scenario

- The global economy is set to enter a deep and more protracted recession than under the baseline as the more uncertain path from outbreaks force all countries into more stringent social distancing measures.
- Despite the deep contraction, the scenario also illustrates a much weaker bounce back.
    - By the end of 2024, world GDP levels are 10% below the pre coronavirus baseline.
- Weaker demand leads to a markedly lower oil price.
- Impact will see a greater financial market spill over.
- Policy response will be mixed, with fiscal austerity, and accommodative monetary policy slipping into negative rates in developed economies.

Overview of Commodity and Transportation Impacts

- Wood products, coal, food, autos, and energy products will be amongst the most sensitive to the lockdown.
- Limited impact from the lockdown on grain and potash forecast in the downside scenario.
- Manufactured products will typically be slower to recover from the initial 2020 shock, than other commodities.
- Overall activity will realize similar declines across modes.
- Aside from crude oil, Western Canada will fair somewhat better; while Eastern Canada will experience the greatest challenges.





[1] Transport Canada Rail Database, 2019-01
[2] TCOD, 2019-06
[3] P5 CPA, 2019

COVID Downside Implications: Western Canada

[1, 2, 3]

Rail

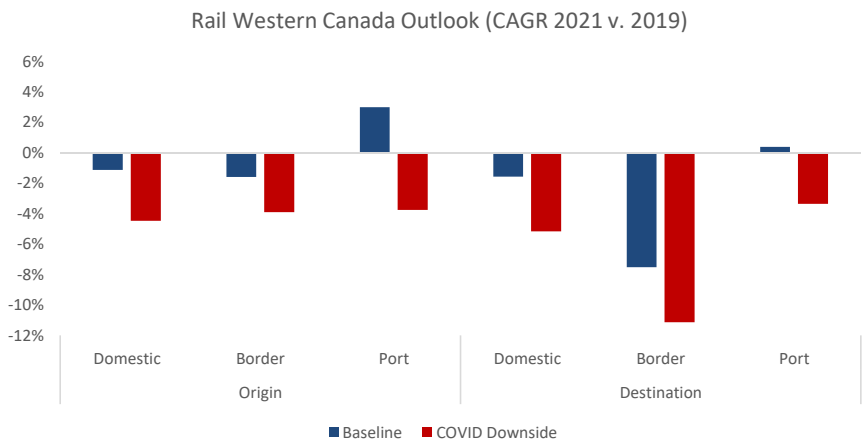
- Consistent with the baseline, crude oil will experience the sharpest decline. Consequently, shipments to key border crossings such as Emmerson will experience considerable declines.
- Grain and potash will see limited change, resulting in more subdued declines at ports and Kingsgate.
- Coal will decline vs the base case but remain flat vs 2019, also resulting in limited impact on ports, with downside risks from new outbreaks in Asia.
- Shipments originating from ports will see a substantial change owing to a significant impact on containers.

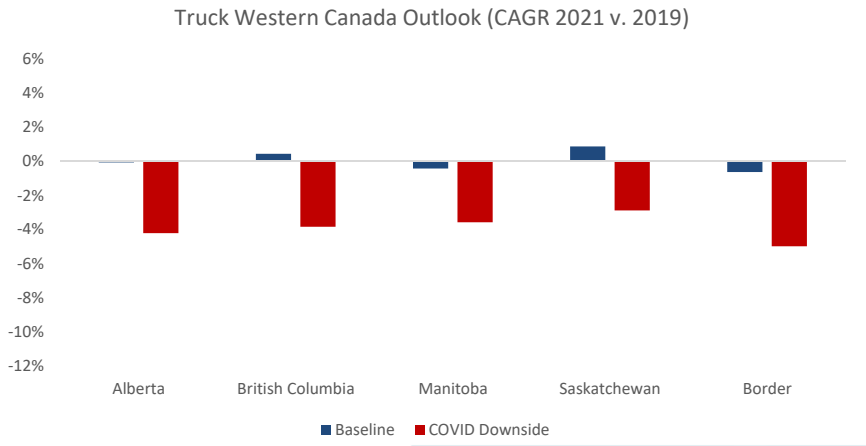
For-Hire Trucking

- Western trucking activity will remain above shipments in other regions. However, the region will realize a more significant decline owing to a larger share of energy products.
- Wood products will be amongst the commodities experiencing the most significant declines.
- Construction materials will realize substantial declines in 2020, but will see a better recovery than most commodities.

Key Ports

- Vancouver tonnage in 2020 would go from a decrease of 3% for the base case to a reduction of 7% in the low case scenarios. Exports of coal and forest products would be the most impacted, while shipments of grains would be unaffected.
- Prince Rupert would see an additional decrease of 4% in tonnage in the low case scenario. Similar to Vancouver, coal would be the commodity most impacted by a slower recovery.
- For both Vancouver and Prince Rupert, the number of TEUs would be approximately 3.5% lower in the lower case than the base case.





[1] Transport Canada Rail Database, 2019-01
[2] TCOD, 2019-06
[3] P5 CPA, 2019

COVID Downside Implications: Central Canada

[1, 2, 3]

Rail

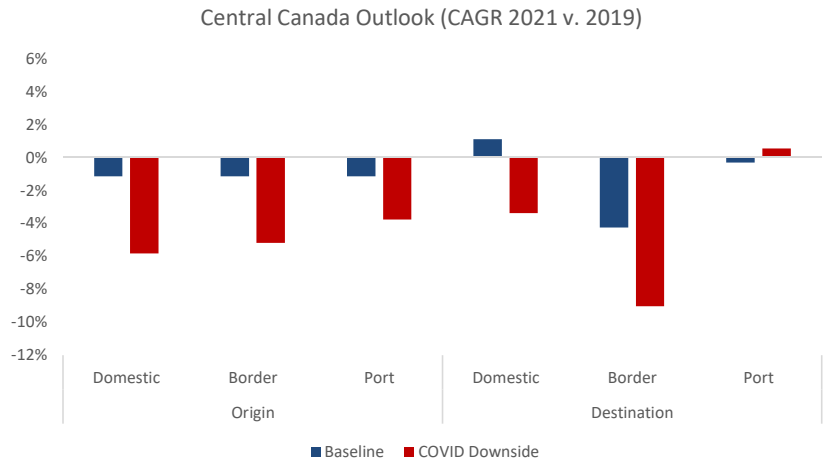
- Automotive shipments will realize the most substantial declines in the region.
- Significant declines in containers will weigh on shipments destined to the region, and border crossings.
- Shipments destined to ports will increase marginally owing to a slight increase in demand for food grains, as restaurant activity declines.
- Sharp decline in border activity at Fort Francis, owing to reduced crude oil shipments to the US.

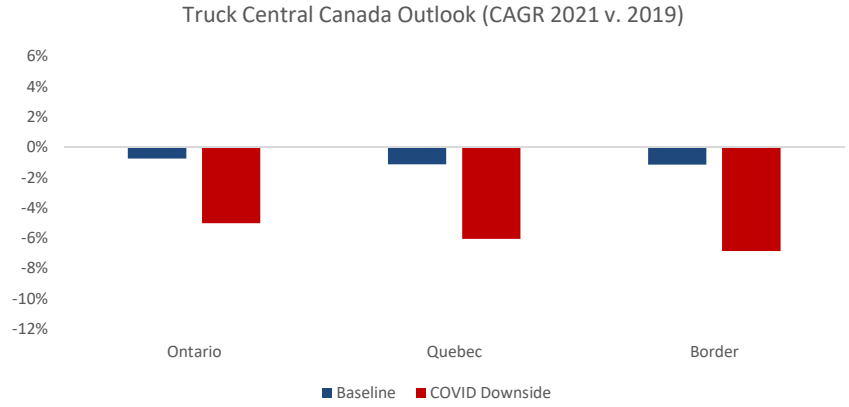
For-Hire Trucking

- Automotive, food, wood products and other manufacturing will realize significant declines.
    - In particular, other manufacturing and food will be slow to recover from the initial shock in 2020.
    - Automotive and wood products will recover faster than other commodities.
- Construction materials will realize moderate declines in 2020 and will recover somewhat below baseline in 2021.

Key Ports

- The tonnage of most commodities at the Port of Montreal would decrease by an additional 3.5% if the impact of the pandemic lasts longer than expected. The only exception would be grains, where there would be no change.
- As shipments of grains are not really impacted by COVID-19, total tonnage at the Port of Thunder Bay should remain stable. Reduction of steel production is likely to impact shipments of metallurgical coal.





[1] Transport Canada Rail Database, 2019-01
[2] TCOD, 2019-06
[3] P5 CPA, 2019

COVID Downside Implications: Eastern Canada

[1, 2, 3]

Rail

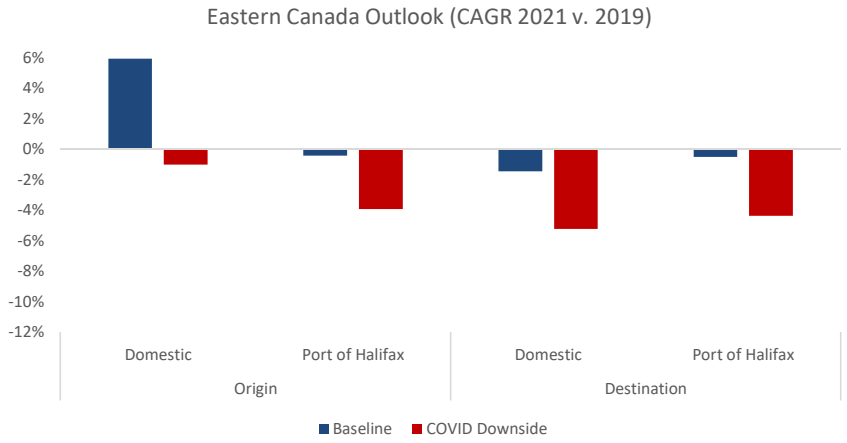
- Shipments originating in the region will remain flat, as iron ore drops in 2020 and recovers to 2019 levels by 2021.
- Decline in container shipment at the Port of Halifax will be the key driver behind losses in port activity.

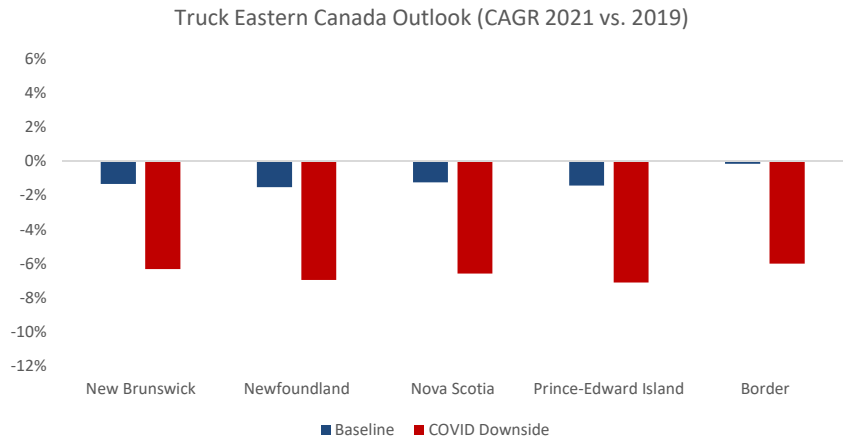
For-Hire Trucking

- Eastern Canada will be the most impacted region in both 2020 and 2021.
- All manufactured products will see strong declines in 2020 and slow recoveries.
- Construction materials will realize moderate declines in 2020 and will recover somewhat below baseline in 2021.

Key Ports

- As for the other Canadian ports, total volume of TEUs should decrease by an additional 3.5% if the impact of COVID-19 lasts longer than expected.





[1] Transport Canada Rail Database, 2019-01
[2] TCOD, 2019-06
[3] P5 CPA, 2019

Feedback

- Is there anything you are seeing that would significantly alter the baseline projection?

- When do you anticipate recovery in your sector? What are the key risks affecting recovery in your sector? Are there other factors that may affect your short-term industry/business prospects? What mitigation strategies are you pursuing in response to short-term risks/uncertainties?

- Given existing excess capacity in the transportation sector, what do you think will be the key challenges during the recovery and into the medium to long-term ?

- What are the medium and long-term growth perspectives in your sector? What are the key risks ?

Annex

Canadian Macroeconomic Conditions and Outlook[1,2]

Commodity Prices and Foreign Exchange

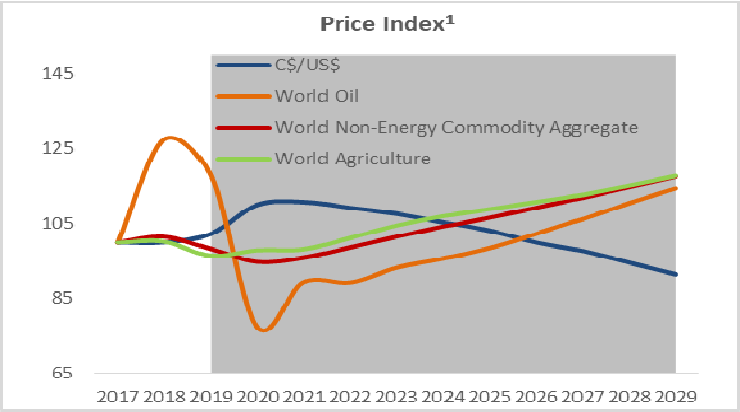
- In 2020, the Canadian dollar will be expected to remain under pressure from the collapse in commodity prices, especially oil prices, before gradually recovering over the medium term when the economy rebounds.
- Rising non-financial corporate debt has been helped by lower commodity prices in recent years, with added ultra-low crude oil prices in the near term.

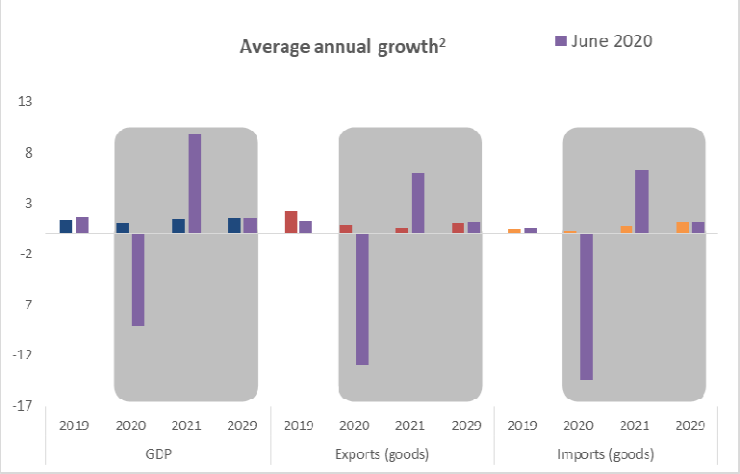
Recent Events and Short-term Outlook

- The pandemic-induced measures, coupled with fear and uncertainty, are projected to bring the economy down in Q2 2020, in particular with dramatic projected drops in exports and imports of goods for 2020.
- Huge losses in employment in April, and fiscal and monetary responses to the pandemic have reached unprecedented levels.
- The Bank of Canada is expected to continue with an massive stimulus until recovery is more clear, with the interest rate at its effective lower bound well into 2021.
- The near-path to recovery is highly uncertain. Partial re-opening might result in a modest rise in Q3, with gradual and uneven economic improvement.
- Household debt adds extreme vulnerability to income loss.
- The oil and gas sector is facing the collapse of crude oil prices at a time when non-financial corporate debt as a share of GDP was already at a record high in Q4 2019.

Long-term Outlook

- Growth is expected to be supported by a gradual recovery of energy prices, given Canada's vast reserves of energy products.
- Debt-to-GDP ratio should remain under control regardless of short-term deficits caused by the stimulus in response to the virus crisis.
- Relative to other advanced economies, Canada's working population growth, although slowing, will be a key source of growth.





[1]Oxford Economics, June 2020
[2]Confrence Board of Canada, 2019-10-14 and Oxford Economics June 2020