The Conference Board of Canada

The Outlook for Canada's Transportation Sector 2020-2040 (Post-COVID-19)

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Executive Summary

This report has three main objectives. The first is to evaluate how the sector has been performing prior to the pandemic and how the pandemic has impacted it. The second is to provide a better understanding of the macroeconomic factors that are affecting the transportation sector. Thirdly, this report aims to quantify and describe the outlook for the overall transportation sector as well as each of its seven component industries over the medium-term.

To achieve these objectives, we generate a forecast that explicitly calculates estimates for prices, revenues, expenditures, investment, profits, real GDP, and employment for the transportation sector and its component industries. This forecast is based on The Conference Board of Canada's long-term economic outlook for the Canadian economy, which was finalized in October 2020. The forecast period covered is 2020 to 2040. However, the analysis in this report will focus more heavily on the medium-term outlook through 2024.

Our analysis highlights that the transportation sector enjoyed strong economic growth prior to the coronavirus pandemic. Between 2010 and 2019, real GDP in the industry grew by an average of 3.7 per cent per year, almost double the 2.2 per cent rate of the overall Canadian economy. Over this period, five of the seven sub-segments in the sector have outgrown the Canadian economy. Air transportation stands out having seen GDP expand by 7.8 per cent a year, as the industry serviced a steadily increasing number of passengers. Water transportation has grown slowest of all the sub-segments with GDP growing by 0.5 per cent per year over the same period.

Other indicators also highlight the sector's expansion over the decade preceding COVID-19. For example, the sector added 180,000 jobs between 2009 and 2019. Furthermore, the sector also posted a record pre-tax profit of $18.7 billion in 2019, which was well above its ten-year average of $12.9 billion.

Unfortunately, the COVID-19 pandemic derailed the sector's growth trajectory. We estimate that transportation sector GDP will contract by 21 per cent in 2020, with the sector shedding an estimated 98,300, or 12% of jobs, as a result. The impact of the pandemic has been varied across the various segments with air transportation and transit and ground transportation being the most affected, being heavily dependent on passenger numbers. The nature of the pandemic has meant that there has been a fear of shared spaces along with multiple lockdowns forcing transportation services such as air transportation to come to an almost stand still.

Coming out of the economic slowdown triggered by the pandemic is heavily dependent on the vaccine roll out, vaccine effectiveness and the degree to which any mutations of the virus can be addressed within the current health approach to the pandemic. We anticipate that as vaccines are made widely available, both in Canada, and globally, consumer and business confidence, investment, and trade, will improve. This is anticipated to

generate an upswing in freight transportation that benefits the sector. At the same time, we expect the relaxing of restrictions on movement that come with the widespread vaccination of Canadians will kickstart the spending of a portion of the significant savings that households have amassed during COVID-19 pandemic. This is expected to start a meaningful recovery in public passenger travel.

Under the assumptions laid out above, the transportation sector will see economic activity rebound in 2021. However, it will take until late 2022 for GDP to return to pre-COVID levels, due to drawn out recoveries in air and transit and ground passenger transportation. The recovery in employment will be more fragile as some positions that were permanently laid off during COVID-19 are not rehired. Moreover, the sector continues to face headwinds to employment growth brought about by retiring baby boomers. All in all, employment is forecast to reach 786,000 by 2024, up from 725,900 in 2020.

In turn, the financial performance of the transportation sector is forecast to improve beyond 2020. Revenues will receive a boost from the recovery in air travel, rising from an estimated $144.6 billion in 2020 to $209.8 billion by 2024. Costs are also projected to rise in the forecast, although softer job growth and lower crude prices will limit gains. Against this backdrop, pre-tax profits are forecast to increase to $18.1 billion by 2024, after sliding to an estimated $4.6 billion in 2020. Margins will level off around 8.6 per cent through 2024—slightly below their pre-COVID levels.

1.0 Introduction

The purpose of this report is to provide an assessment of the recent economic performance and the outlook for Canada's transportation sector as a whole and for its subsegments. This is the fifth edition of the report that The Conference Board of Canada has produced on this subject; the first edition was completed in 2009 with follow-ups completed in 2011, 2015 and 2020.

The transportation sector recovered rapidly from the 2008-2009 recession as a rebound in global economic growth spurred a recovery in Canada's merchandise trade, and thus, freight transportation. At the same time, a rally in consumer and business confidence provided a boost to air travel demand, which supported passenger traffic. Together, these factors supported a turnaround in the sector's performance, with GDP, employment, and profits, all returning to pre-recession levels by 2011. However, in recent years prior to the pandemic, the economic backdrop had been marked by low oil prices, a depreciated Canadian dollar, rising consumer debt levels, and increasing trade uncertainty. The pandemic and the toll it has had on the economy have had an impact on the transportation industry as well. While all segments of the transportation sector have been adversely affected, some such as air, transit and ground transportation industries have been affected more than others.

This edition of the transportation sector's outlook is based on The Conference Board of Canada's long-term economic outlook for the Canadian economy, finalized in October 2020. The forecast for the transportation sector is generated by using statistical techniques that relate socio-economic variables from The Conference Board of Canada's existing international, national and industry forecast products to relevant performance indicators in the sector. The forecast explicitly calculates estimates for prices, revenues, expenditures, investment, profits, real GDP, and employment for the transportation sector and its component industries. The forecast period covered is 2020 to 2040. However, the analysis focuses more heavily on the medium-term outlook through 2024. Additional forecast tables can be found at the end of this report.

The economic toll of the pandemic has been hard on the Canadian economy. Canada along with the rest of the global economy has faced a contraction in economic activity as a result of the various measures adopted to deal with the health concerns. Some of the measures adopted to deal with the pandemic might have long-term impacts on the structure of the economy and consequently on those transportation segments that might be affected by these changes.

In this report, all data regarding the transportation sector is defined using the North American Industrial Classification System (NAICS), as defined by Statistics Canada. The information is primarily organized by different transportation modes and data are restricted to economic activity conducted by domestic or foreign firms within Canadian borders. The analysis is organized according to the definitions laid out in NAICS for two

reasons. First, it is the standard employed by Statistics Canada when reporting all information related to the transportation sector, at both the federal and provincial levels of aggregation. Secondly, NAICS is derived with the specific intent of making international comparisons between the Canadian, American, and Mexican economies more meaningful as all three use the same reporting methodology. Therefore, the analysis is conducted on the following transportation industries:

- Air transportation (NAICS 481)
- Rail transportation (NAICS 482)
- Water transportation (NAICS 483)
- Truck transportation (NAICS 484)
- Transit, ground passenger, scenic and sightseeing transportation (NAICS 485 & NAICS 487) - Throughout the remainder of this report, we refer to it as the transit and ground passenger industry for simplicity.
- Pipeline transportation (NAICS 486)
- Support activities for transportation (NAICS 488)

In terms of real GDP[1], truck transportation is the largest sub-segment of the industry accounting for nearly one third of the industry's production. (See Figure 1.1) It is followed by support activities. These two industries combined account for more than one half of Canada's total transportation sector GDP. The remainder is evenly split between pipeline, air, rail, and transit and ground passenger transportation. The water transportation segment is the smallest subsegment, accounting for just 3 per cent of total transportation GDP.

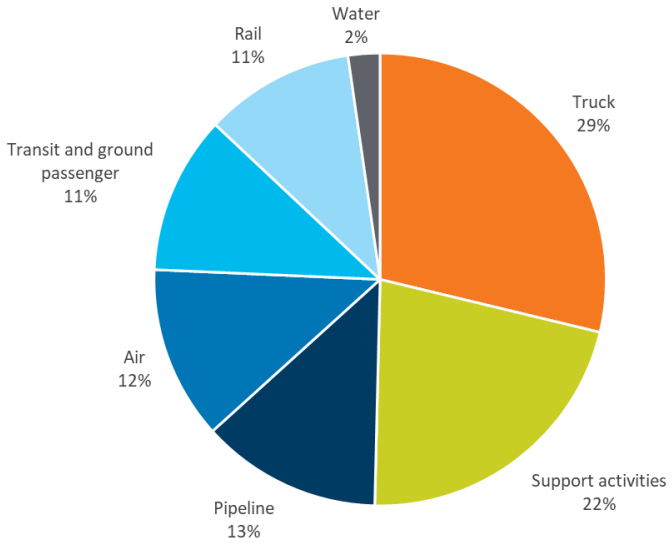
It is worth noting that only activity that is carried out by Canadian-owned businesses or the Canadian operations of transnational organizations will accrue to the Canadian transportation sector. For example, the transportation output that occurs as goods are shipped overseas on foreign-flagged ships are not counted in the Canadian transportation sector. The industry will benefit from the transportation of goods to the port (perhaps by truck or rail), and from the services provided to move the goods through the port (transportation support services) but will receive no benefit from the shipment on water unless it is conducted on a Canadian flagged ship. This applies equally to all modes of overseas transportation. Flights that occur on foreign-owned airlines outside of Canadian airspace are not included in the Canadian transportation sector. If those flights transit through Canada or land in Canada, impacts occur in the support services segment in the form of things like airport operations or air traffic control.

[1] Real GDP is reported in $2012 throughout this report unless otherwise specified.

Figure 1.1

Transportation industries by relative share of GDP – 2019

(per cent)



Source: The Conference Board of Canada, Statistics Canada.

The remainder of the report is organized as follows. Section 2 outlines the macroeconomic outlook for the Canadian, the U.S. and the global economy. This sets the context for Canada's transportation sector going forward. Sections 3 provides analysis specific to the seven distinct industries within the transportation sector: air, rail, water, truck, transit and ground passenger, pipeline transportation, and support activities. Section 4 ends with a summary of the results.

2.0 Macroeconomic Trends

Canadian Outlook

The economic toll of the pandemic on the Canadian economy has been heavy.[2] In April 2020, during the early stages of the pandemic when stringent lockdowns were imposed across provinces, Conference Board estimates suggest that real GDP had fallen to 82 per cent of the pre-pandemic levels in February and 3 million Canadians had lost their jobs. As health restrictions began to be lifted in May, a rebound in economic activity got under way and by November 2020 estimates suggest that activity was back at 96.4 per cent of real GDP pre-pandemic and just over 2.4 million jobs had been recovered.[3] There is still a gap to cover despite this recovery. Furthermore, the pace of recovery is expected to slow over the first half of this year with vaccine delivery rollouts not occurring at the planned pace and with concerns on variant strains of the virus and recurring lockdowns. Recovery across industries will also be varied, with some industries recovering faster and some undergoing fundamental changes. The nature and pace of transportation sector recovery and growth would depend on the developments in consumption and household spending, fiscal spending, business investments and international trade.

Overall, real GDP is estimated to have shrunk by 5.4 per cent in the year 2020. (See Figure 2.1) Prices have also slumped, suggesting that nominal GDP, a key broad indicator of the taxable base for governments, was hit hard in 2020 and will take time to recover. These adverse developments have cut growth in real potential output to just 1.1 per cent annually over the 2020–25 period. Longer term, a pickup in the level of business investment relative to GDP is expected to bolster productivity growth, helping to lift Canada's potential economic growth to an annual average of about 1.6 per cent between 2026 and 2035. This pace of growth, while stronger than gains over the near to medium term, pales in comparison to the average growth of 3.2 per cent per year in the decade prior to the 2008–09 recession.

With measures restricting travel and nonessential businesses from opening, spending was severely curbed in the second quarter of 2020. Real household consumption declined a record 13.1 per cent that quarter. Nevertheless, household finances were still positive amid the increase in unemployment, thanks to income support programs the government enacted in the early stage of the pandemic. With fewer places to spend their money, many households were able to increase their savings in 2020, which expanded their spending capacity during the pandemic. The surge in household disposable income (up to 10.3 per cent) coupled with pent-up consumer demand, supported the fast rebound of consumer spending in the second half of 2020.

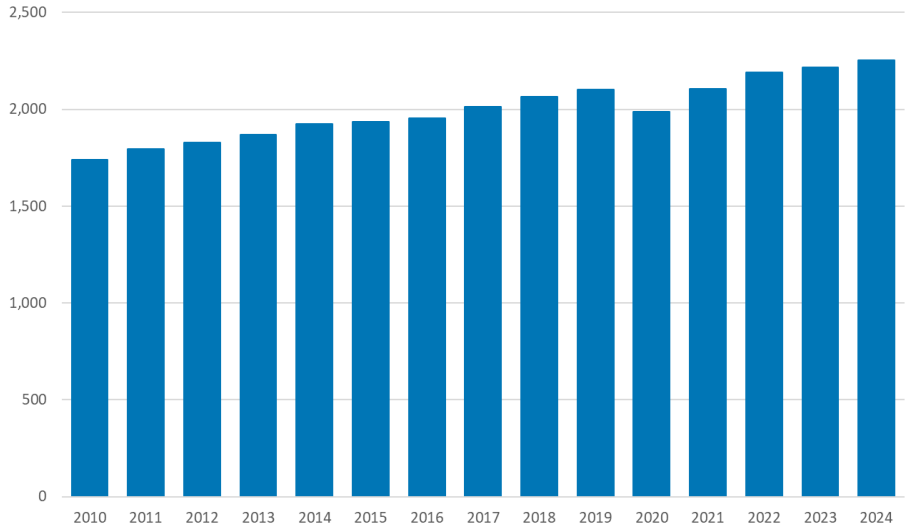
[2] The Canadian economic outlook is based on our CBoC outlooks and reports discussing the long-term outlook for aggregate demand, fiscal spending and business investment.
[3] Conference Board of Canada, "The Recovery Rests on Vaccine Rollout:Canada's Two-Year Outlook—January 2021. Ottawa: The Conference Board of Canada, 2021."

(Figure 2.2) Our forecast estimates household consumption to rebound fully by early 2021 as restrictions on the economy are lifted and labour markets and income rebound. As such the annual average growth of household spending will rise to 3.6 per cent from 2021 to 2025.[4]

Figure 2.1

GDP to recover to pre-COVID levels by 2022

(GDP, $ 2012 trillion)

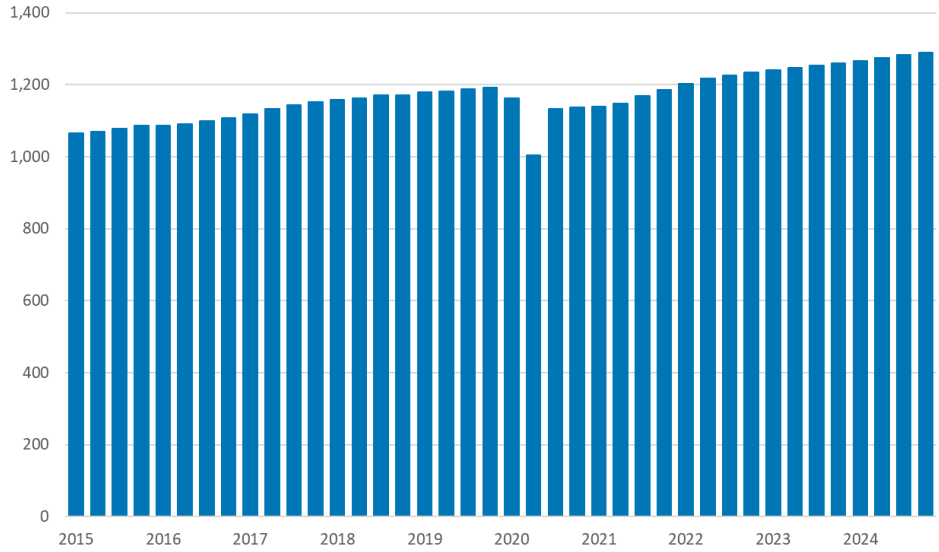


Source: The Conference Board of Canada, Statistics Canada.

Figure 2.2

Household spending to rebound from 2021 onwards

($ 2012 billion)



Source: The Conference Board of Canada, Statistics Canada.

[4] Conference Board of Canada," Challenges Ahead: Canada's Post-Pandemic Fiscal Prospects. Ottawa: The Conference Board of Canada, 2021".

The COVID-19 crisis has forced policymakers in Canada to provide massive fiscal and monetary stimulus to support the economy. From a health and economic perspective, the situation, while improving, remains fraught with risks. Over the coming months, governments will be focused on rolling out vaccines and kick-starting the economy, with the intent of adding additional stimulus if necessary. While these are critical initiatives, it is also important for policymakers to start planning for the longer-term fallout from the pandemic—specifically, persistent deficits and surging debt.

On the international trade front, since the largest market for Canadian exports is the United States, the U.S. economic outlook is the key determinant of performance. Positive fundamentals—including stable economic demand from the U.S., the greater inroads made by Canadian exporters into other global markets, and a Canadian dollar trading well below par throughout much of the long term—all bode well for Canada's export sector. Although export growth will not be as strong as it was during the 1990s, it will continue to rise steadily as a share of total GDP. The story is similar for Canada's import sector. Battered by the pandemic, it will take some time for the domestic economy to fully regain its footing, and domestic demand conditions will be tepid over the short term. But even after the sector returns to its pre-pandemic state, modest domestic demand, coupled with a relatively weak Canadian dollar, will constrain import activity somewhat for much of the remainder of the forecast. [5]

Overall, total exports are forecast to increase at an average annual rate of 1.5 per cent between 2020 and 2024, 2.2 per cent between 2025 and 2030. While these levels pale in comparison with the average growth of 8.1 per cent we saw during the 1990s, it will still be enough to allow exports to continue to gradually grow as a share of total GDP throughout the forecast period. Overall, total imports are forecast to average annual growth of 0.8 per cent between 2020 and 2024, 1.7 per cent from 2025 to 2030. Even though Canada's trade sector endured one of its most difficult years ever in 2020, exports will still be enough to narrow the deficit further. With exports forecast to outpace imports throughout most of the forecast, the current account deficit is expected to continue to shrink, eventually turning into a surplus of over $2 billion in 2027.

United States and Global Outlook

The Conference Board forecast estimates that global growth will increase by 4.4 per cent year on year in 2021, following a decline of 4.2 per cent in 2020. This outlook though is predicated on several factors such as the evolution of the pandemic, government policy to control outbreaks, continued monetary and fiscal supports and widespread availability of coronavirus treatments and vaccines. The forecast suggests that the recovery would

[5] Conference Board of Canada, " Investment Recovery Won't Happen Overnight: Canada's Two-Year Business Investment Outlook".

be uneven, and the pace of recovery would vary across industries and households depending on the impact of the pandemic.[6]

Emerging markets are expected to lead the recovery in 2021, while advanced economies lag since they were more affected by the pandemic. Within emerging markets, the economies of China, South Korea, Taiwan and India are expected to recover faster than others.

The medium-term global outlook (2020–2023) includes the pandemic-induced downturn and recovery, with global GDP growth averaging 1.5 per cent year-on-year. This outlook factors erosion of productivity growth in response to governments propping up uncompetitive firms and a slowdown due to businesses across the world not being able to adapt well to the technological advancements required in a post COVID-19 world. In the long term, some pandemic induced losses may not be recovered, resulting in slower global growth over the next decade than the previous one. Long-term global GDP growth may average 2.6 per cent year-on-year over the next decade versus the 2.9 per cent growth seen over the span from 2011 to 2019. However, the global economy probably will benefit from growth drivers such as digital transformation and productivity improvements.

With regard to the U.S. economy, Conference Board forecasts suggest that the economy will expand by 4.2 per cent in 2021, after contracting 3 per cent in 2020. Key factors behind the rebound include the rollout of vaccines, additional government fiscal support, and pent-up demand as Americans spend some of the savings, they built up last spring when most of the economy was shut down. It will take until sometime in 2024 before employment returns to pre-pandemic levels. The unemployment rate will decline through the medium term, but it will not drop below the 4.0 per cent mark as it had done in the early part of 2020. The U.S. fiscal deficit will gradually decline after hitting a record high of well over $3 trillion in 2020. But deficits in the $1-trillion ranges will persist through the medium term. Financing costs, while challenging, will be manageable thanks to rock-bottom interest rates, which are expected to persist until at least 2023.

[6] Pedro, Antunes. Challenges Ahead: Canada’s Post-Pandemic Fiscal Prospects. Ottawa: The Conference Board of Canada, 2021.

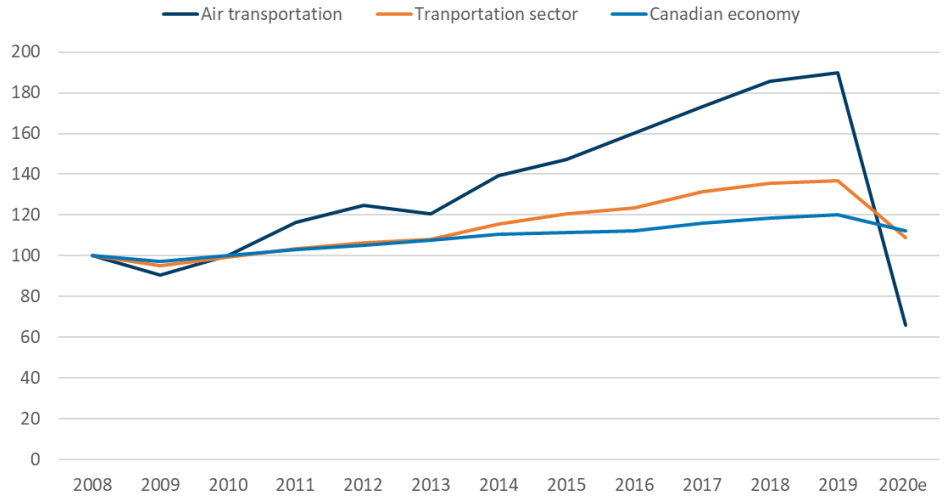
3.0 Sectoral Performance and Outlook

3.1 Air Transportation

Recent performance

In the decade following the 2008-09 recession, the economic performance of Canada's air transportation industry was exceptional. Between 2010 and 2019, price-adjusted GDP in air transportation grew by an average annual rate of 7.8 per cent—over triple the rate (2.2 per cent) of the Canadian economy. (See Figure 3.1.1.) Air transportation was able to outperform the overall economy over this period as it serviced a steadily increasing number of passengers, fueled by significant growth in international visitors to Canada following the depreciation of the Canadian dollar in 2014.

Figure 3.1.1
Air transportation was outperforming transportation sector before COVID-19 outbreak
(index of real GDP, 2008 =100)



e = estimate
Sources: The Conference Board of Canada; Statistics Canada. Table 23-10-0079-01.

Despite its impressive performance since the end of the 2008-09 recession, GDP growth in air transportation was moderating leading up to the COVID-19 pandemic. Domestically, slowing economic growth combined with elevated household debt meant that consumer spending growth was softening. Meanwhile, the increase in international travellers to Canada appeared to be leveling off, after reaching a high in 2017. For these reasons, our previous outlook[7], finalized in November 2019 (i.e. before the outbreak of COVID-19), foresaw that GDP in air transportation would average gains of 1.4 per cent between 2019 and 2023, well below the industry's historic pace.

[7] The Outlook for Canada's Transportation Sector 2019-2035.

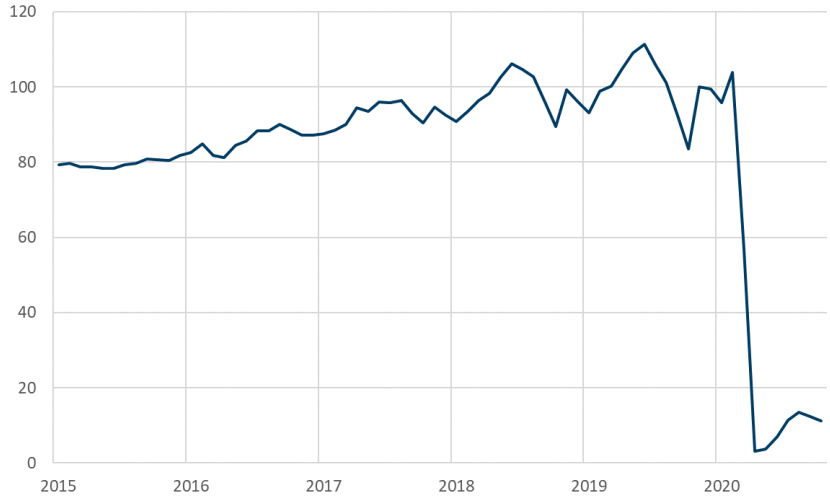
The COVID-19 pandemic derailed this forecast. Far more, the pandemic represented a true black swan—an unpredictable but extremely high-impact event—for the air transportation industry.[8] After the World Health Organization declared the COVID-19 outbreak a pandemic on March 11, 2020[9,10], many countries including Canada mandated lockdowns, closed borders, and encouraged social distancing to slow the transmission of the virus. This contributed to an unprecedented collapse in air travel. By April, Canada's major airlines were only servicing 7,600 passengers per day—roughly 3 per cent of the 249,000 passengers they transported daily a year earlier.[11] (See Figure 3.1.2.)

In response to rock-bottom travel, Canadian airlines adjusted their supply. Air Canada ended almost all international flights and more than half of its flights within Canada, while WestJet, Air Transat, Porter and Sunwing cut some or all their international and domestic flights.[12] These cancellations contributed to an aggregate decline in available seat-kilometres—an indicator of supply—from 22.6 billion kilometres per month in 2019 to a low of 1.3 billion kilometres in May. Since June 2020, major Canadian airlines have marginally increased capacity in line with slight improvements in air travel. However, restrictions on non-essential travel into Canada and mandatory 14-day quarantines for Canadians returning from abroad are limiting any meaningful recovery in air passengers. As a result, air transportation remains under intense pressure.

Figure 3.1.2

Canadian airlines facing record-low passenger travel

(index of passengers transported by major Canadian airlines, 2019 = 100)



[8] Voss, "The Black Swan."
[9] A pandemic is defined as a contagious infectious disease that has spread to multiple geographic areas or continents.
[10] World Health Organization, "Timeline: WHO's COVID-19 Response."
[11] Air cargo data that we found under the following website: https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=2310025401 was not updated for 2020. Thus, we could not provide a comparative performance of cargo versus passenger segments.
[12] Transport Canada, "Transportation in Canada 2019."

Sources: The Conference Board of Canada; Statistics Canada. Table 23-10-0079-01.

Several other economic indicators highlight the burden of COVID-19 on air transportation. For one, GDP in air transportation plummeted by 95 per cent in the second quarter of 2020. The only other Canadian industry to experience a comparable decline was transit and ground passenger transportation, which saw GDP fall by 63 per cent.[13] In addition, air transportation shed approximately 28,000 jobs between the first and fourth quarters of 2020—equivalent to over a third of the industry's workforce. Air Canada alone laid off or furloughed over 20,000 employees during the COVID pandemic, representing more than 50 per cent of its workforce.[14] Finally, the industry saw its profitability significantly deteriorate. While several factors reduced industry costs, including operating at reduced capacity (an estimated 50 per cent of airline costs are variable[15]), low oil prices, and government support programs, the decline to revenues was significantly larger. Unfortunately, we are not able to evaluate the aggregate imbalance between revenues and costs for the air transportation industry since Statistics Canada recently discontinued providing detailed financial data by industry. Nevertheless, the financial performance of Air Canada, the industry's largest incumbent, sheds light on the industry's current financial hardship. The airline reported a $1.75 billion loss for the second quarter of 2020[16], which was followed by a $785 million loss in the third quarter.[17]

Outlook

Any meaningful economic recovery in air transportation depends on the widespread public availability of a COVID-19 vaccine in Canada and the rest of the world. After declining by 9.1 per cent in 2020, household spending, the key driver of airline demand, will all but recover in 2021, thanks to improving labour market conditions and spending of pent-up savings. However, not all spending categories will recover evenly. Notably, spending on transport services will recover more slowly, as consumers continue to limit their travel. (See Figure 3.1.3.) Travel by public passenger transportation is only expected to recover to a significant extent once immunization becomes widespread.

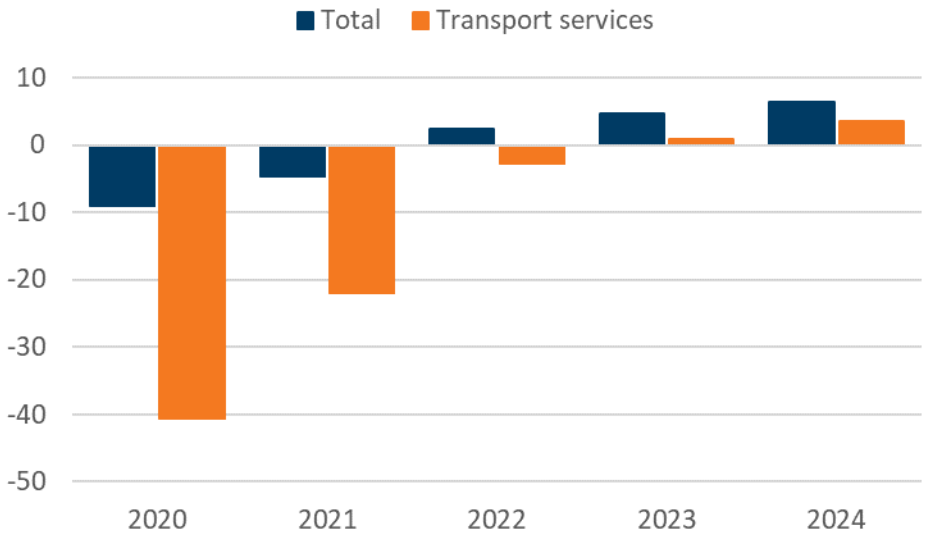
When is this expected to happen? Our forecast assumes that COVID-19 vaccines will be widely available to Canadians by October 2021. This timeline aligns with a survey of experts[18] published in the Journal of General

[13] Statistics Canada. Table 36-10-0434-01 Gross domestic product (GDP) at basic prices, by industry, monthly (x 1,000,000).
[14] Air Canada, "Air Canada Implements Additional Capacity and Workforce Reductions."
[15] OECD, "COVID-19 and the Aviation Industry: Impact and Policy Responses."
[16] CBC, "Air Canada Posts $1.7B Quarterly Loss as COVID-19 Walloped Travel Demand."
[17] Air Canada, "Air Canada Reports Third Quarter 2020 Results."
[18] The survey sample consisted of 28 experts with 25 median years of experience working with vaccines (ranges 8–42); Twenty worked in academia, six in industry, and two in government. Participants were mostly based in Canada (20) and the USA (6).

Internal Medicine[19] as well as a recent announcement by the Public Health Agency of Canada (PHAC) suggesting that all Canadians who want a shot will be vaccinated by September 2021[20].

Broad immunization is expected to kick off the recovery in air travel, which we expect will be drawn-out. Domestic air passenger travel is forecast to return to 2019 levels by the fourth quarter of 2023. International air travel, which accounts for a sizeable 42 per cent of air passenger traffic at Canadian airports[21], is expected to recover slightly slower. This reflects slower immunization across most countries outside of Canada, and a deliberate unwinding of travel restrictions by the Canadian government. International passengers serviced by Canadian airlines are expected to return to 2019 levels by the first quarter of 2024.

Figure 3.1.3
Household spending on transport services expected to remain depressed longer
(index of household consumption, 2019 = 0)



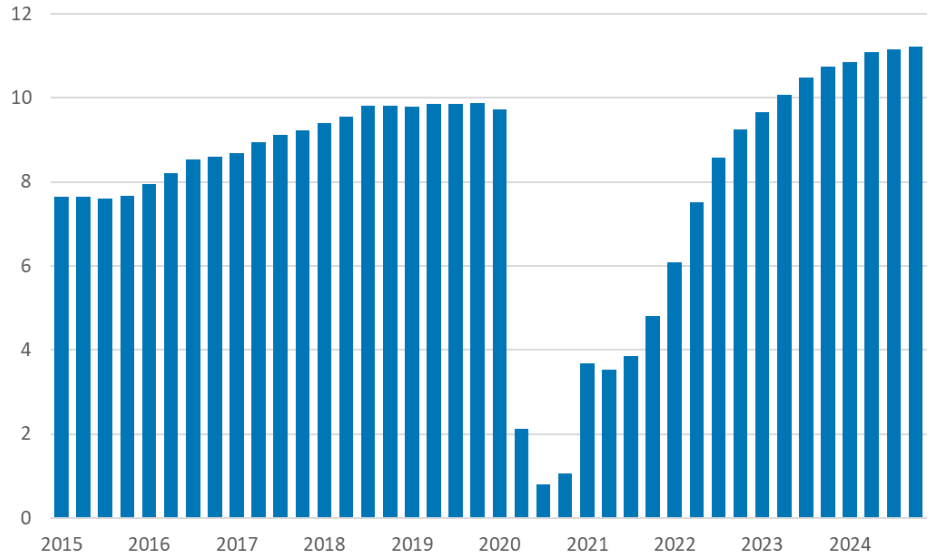
Sources: The Conference Board of Canada; Statistics Canada.

Air transportation's economic outlook will mirror the improvements in passenger travel. GDP will recover to pre-COVID (i.e. 2019) levels by 2023. (See Figure 3.1.4.) Thereafter, continued improvements in passenger travel will allow the industry to expand; however, this expansion will be weighed down by slowing consumer spending growth, stemming from moderating job gains and Canadian consumers focusing on managing their debts. In other words, we do not anticipate that the air transportation industry will maintain its strong growth performance leading up to the COVID-19 pandemic once it recovers.

[19] Kane et al., "Expert Forecasts of COVID-19 Vaccine Development Timelines."
[20] Tasker, "All Canadians Who Want a Shot Will Be Vaccinated by September 2021, Public Health Agency Says | CBC News."
[21] Statistics Canada. Table 23-10-0253-01 Air passenger traffic at Canadian airports, annual.

Although employment in air transportation will recover in line with GDP, our model does not anticipate a complete recovery over the medium term. By 2024, air transportation is projected to recover 20,800 of the 26,200 jobs lost in 2020. Several factors explain an incomplete recovery. First, air transportation continues to face headwinds to employment growth brought about by retiring baby boomers. Second, some positions that were permanently laid off during COVID-19 may not be rehired as the industry recovers due to financial reasons. Third, we have framed the recovery with respect to 2019 employment levels, which were above trend, reflecting the industry's historical expansion. Employment will reach 77,200 by 2024—well above the average of 74,900 between 2015 and 2019.

Figure 3.1.4
GDP recovers to pre-COVID levels by 2023
($2012 billions)



Sources: The Conference Board of Canada; Statistics Canada.

In terms of financials, air transportation is not expected to return to profitability until 2023. On the heels of an estimated $7.7 billion loss in 2020, our model anticipates that the industry will face an even more challenging 2021, losing an additional $9.7 billion. Thereafter, losses will moderate and eventually reverse as rising passenger numbers boost revenues. It should be noted that our profit projections are likely to overestimate the impact because:

1. They do not explicitly capture government support measures such as the Canadian Emergency Wage Subsidy (CEWS) that alleviate business costs.
2. Our model is not built to capture insolvency or other effects of financial hardship on businesses. As such, it does not provide us with information on how long air transportation could sustain such significant losses.

Nonetheless, the financial hardship that air transportation is facing because of COVID-19 is unprecedented. The industry has been profitable in fourteen of the past fifteen years. Prior to this impressive streak, air transportation suffered a string of consecutive profit declines between 2000 and 2004. During this stretch, the largest annual loss totalled $900 million in 2001.

Air transportation faces an uphill recovery following the unprecedented and unparalleled economic impact of the COVID-19 pandemic. Our forecast for the industry's recovery outlined above is subject to various risks. They include:

- **Immunization:** Virus mutations, or vaccines that do not deliver lasting immunity, would delay the recovery in passenger travel, and thus the economic recovery in air transportation.
- **New normal for air travel:** Changes in consumer behaviour may prevent a return to pre-crisis demand levels, even as lockdowns and other travel restrictions are loosened. Moreover, the success of virtual meeting platforms, such as Zoom and Microsoft Teams could hamstring the return of business travel to its pre-pandemic levels.
- **Solvency:** Our outlook suggests that airlines could face challenges remaining solvent.[22] While it is unlikely that major Canadian airlines would not be bailed out in the event of insolvency[23], the conditions of such a bailout could influence the industry's future growth trajectory.
- **Returning to capacity:** Several factors could limit airlines' ability to meet an eventual rise in demand. They include:
    - Aircraft order cancellations and retirements caused by the unprecedented decline in air travel in 2020."[24] Fleet cuts and potential airline failures could take additional capacity out of the market.
    - Potential labour market imbalances as airlines look to rehire key occupations such as aircraft maintenance engineers, air traffic controllers, and pilots. Extensive training requirements represent high barriers to entry for these positions, limiting quick requalification.
    - Potential post-pandemic barriers to travel, such as lingering safety procedures.

[22] In May, the International Air Transport Association predicted that only 30 of the world's 700 or so airlines would survive the crisis without government help.
[23] The federal government has already started talks with Canada's major airlines about an industry-specific bailout package that could include loans and other support. However, the government had a list of demands, including airlines opening their books, refunding passengers for cancelled flights and avoiding the cancelation of planned purchases of new planes made in the country.
[24] Deloitte, "COVID-19 - Aviation's Recovery Flight Plan: Stronger Ecosystem Collaboration Needed."

3.2 Rail Transportation

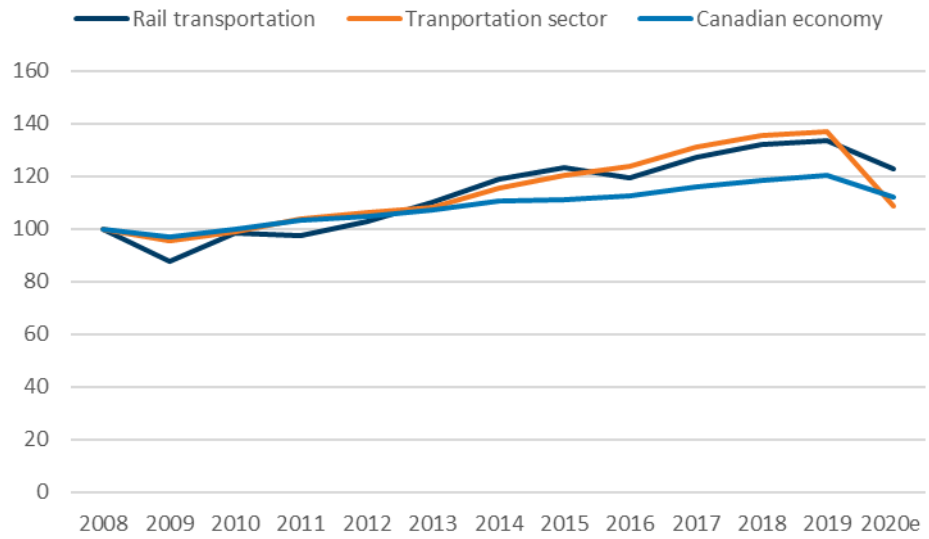
Recent performance

Since 2009, the Canadian rail transportation industry has been growing steadily with growth having peaked between 2016 and 2019. The average annual growth in GDP (price adjusted) over the period 2010 to 2019 was 4.3 per cent for this industry segment and was higher than the overall Canadian economic growth of 2.2 per cent over the same period. (Figure 3.2.1)

Consequent to the pandemic, GDP contribution from this industry is estimated to have fallen by 7.8 per cent. The rail transportation sector GDP has experienced less of a fall compared to most other transportation sectors as can be evidenced below. (Figure 3.2.2). This might be because rail transportation revenues are primarily from freight transportation.

Figure 3.2.1

Rail transportation has been less affected than the overall transportation sector due to the pandemic
(index of real GDP, 2008 =100)

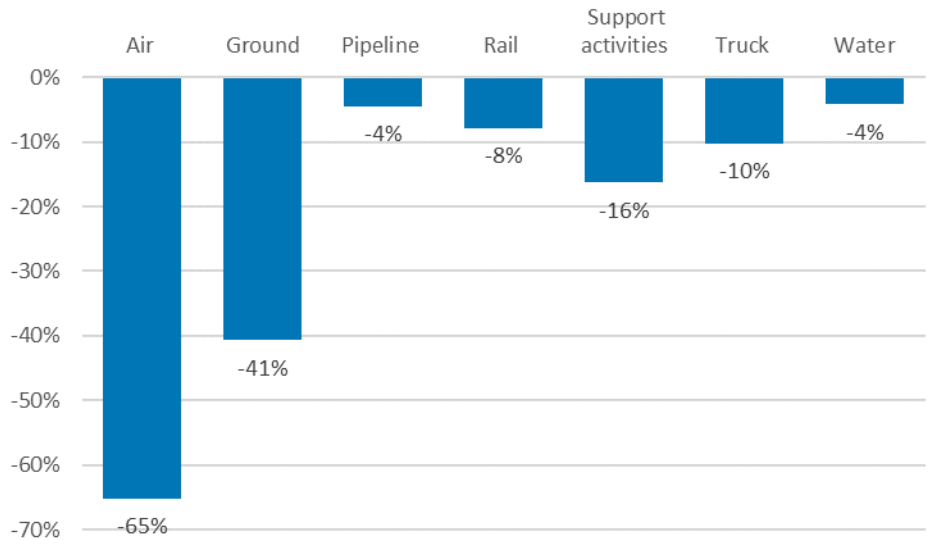


e = estimate
Sources: The Conference Board of Canada; Statistics Canada.

Figure 3.2.2

Fall in GDP lowest for rail, water and pipeline transportation industries

(percentage change in GDP, 2020)



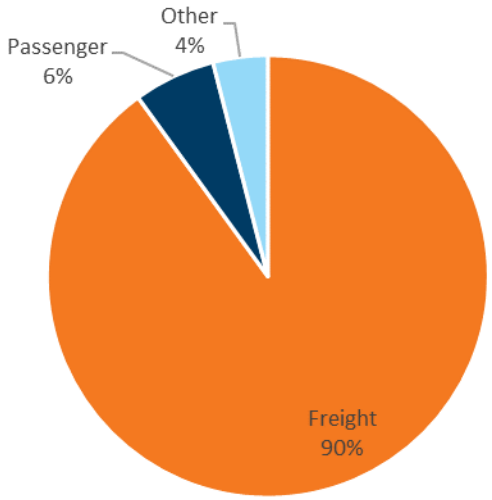
Sources: The Conference Board of Canada; Statistics Canada.

The economic performance of the Canadian rail industry is closely associated with the North American freight industry performance. More than 90 per cent of rail transportation industry revenue in Canada has historically come from freight. Figure 3.2.3 below highlights the predominance of freight revenues over passenger rail revenues.

Figure 3.2.3

Freight contributes to 90 per cent of rail transportation revenues

(revenue share of components of rail transportation, 2018)

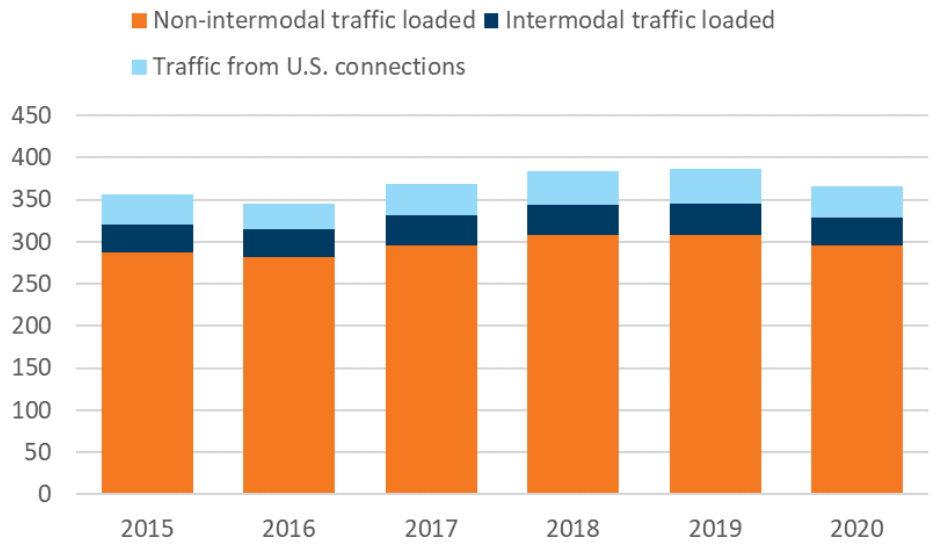


Sources: The Conference Board of Canada; Statistics Canada.

Freight volumes transported by the railways has declined from 2019 to 2020 by 5.4 per cent with declines in both intermodal and non-intermodal freight. While non-intermodal freight loadings in Canada fell 3.9% to 295.6 million tonnes, intermodal freight traffic was down 10.7% to 33.2 million tonnes by the end of 2020. Despite the decline, freight volumes still remained within the five-year average as can be seen from the figure below. (See Figure 3.2.4.)

Figure 3.2.4

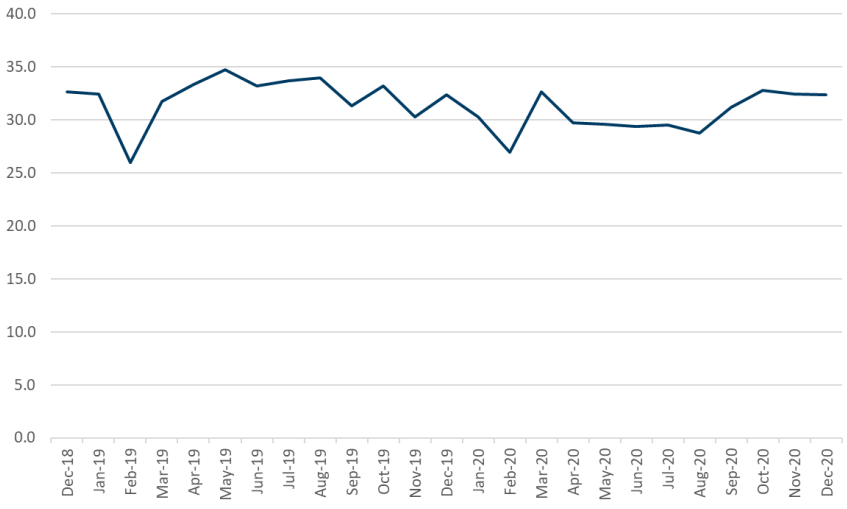
Freight volumes declined but still within the previous five-year average volumes
(railway carloading components, millions of tonnes)



Sources: The Conference Board of Canada; Statistics Canada, Table 23-10-0216-01.

Figure 3.2.5

Freight volumes declined during the pandemic but since has recovered
(Total Traffic Carried, railway carloading components, millions of tonnes)



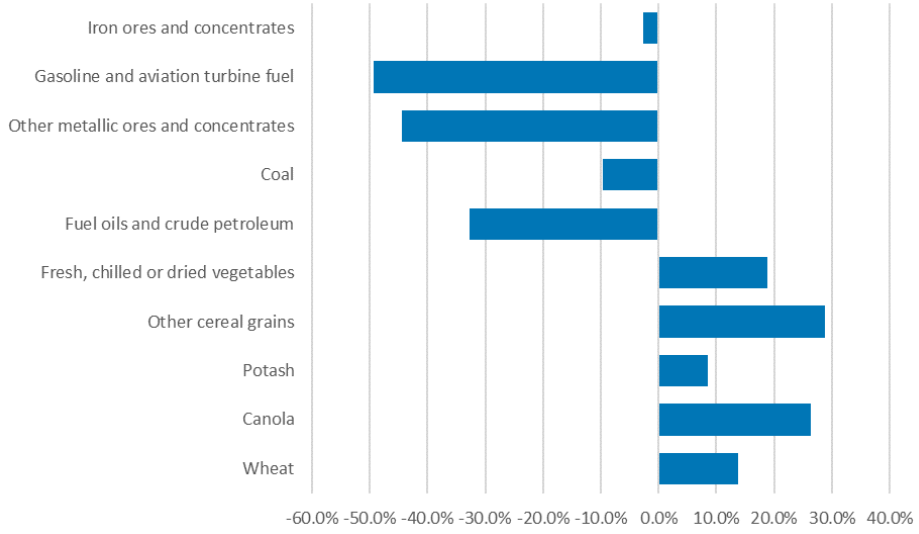
Sources: The Conference Board of Canada; Statistics Canada.

Interestingly, the pandemic changed the commodity composition of freight and brought about a shift from energy to agricultural and food products. This is reflective of the changes in consumption patterns over the pandemic, with weaker energy demand coming in because of travel restrictions and lock downs. All components of energy loadings declined from 2019 to 2020 with the decline sharpest for gasoline and aviation turbine fuel and other metallic ores and concentrates. In contrast the loadings of agricultural and food products across subcomponents increased from 2019 to 2020. (See Figure 3.2.6.)

Figure 3.2.6

The pandemic has led to a change in freight composition of rail

(railway carloadings by product, percentage change, 2020)



Sources: The Conference Board of Canada; Statistics Canada, Table 23-10-0216-02.

While freight constitutes the dominant share in Canadian rail revenues, passenger rail transport system has a significant role to play in the country connectivity wise. In 2019, Canadian rail transported 100 million passengers around the country.[25] While passenger rail has declined in Canada in recent decades as private vehicle and air travel has expanded, it remains a preferred travel choice for some Canadians, particularly in the busy Quebec City-Windsor corridor, and offers an accessible transportation option with a lower environmental impact than alternatives like air and private automobile. Railways produce only 1 per cent of Canada's total GHG emissions and 3.5 per cent of total Canadian transport-related GHG emissions making it one of the country's most sustainable options.[26] The proposal for the high frequency rail between Toronto and Quebec city would be an important development in the area of passenger rail transportation aimed at allowing for more frequent, faster and reliable service that would make the train a more attractive option for travellers in this busy

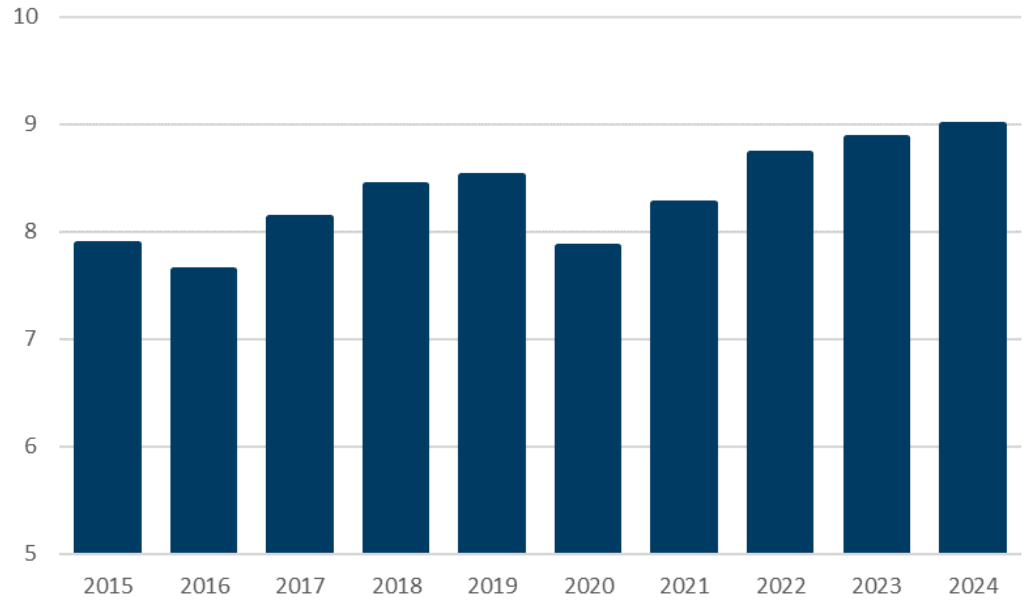
[25] Railway Association of Canada, "Transportation in Canada 2019."
[26] Railway Association of Canada, "Transportation in Canada 2019."

transportation corridor. The success of the project would also determine future similar projects across busy corridors across the country.

Outlook

Over the near-term economic activity in this sector is expected to rebound, with GDP expected to be aligned with the long-term trend from 2022 onwards. As the general economy begins to swing upwards and freight volumes increase further, the sector would grow. Between 2021 and 2023, our model estimates that GDP from rail transportation will grow by 3.5 per cent per year. (See Figure 3.2.7.)

Figure 3.2.7
Rail transportation GDP to align with the long-term trend from 2022 onwards
(GDP, $2012 billions)



Sources: The Conference Board of Canada; Statistics Canada.

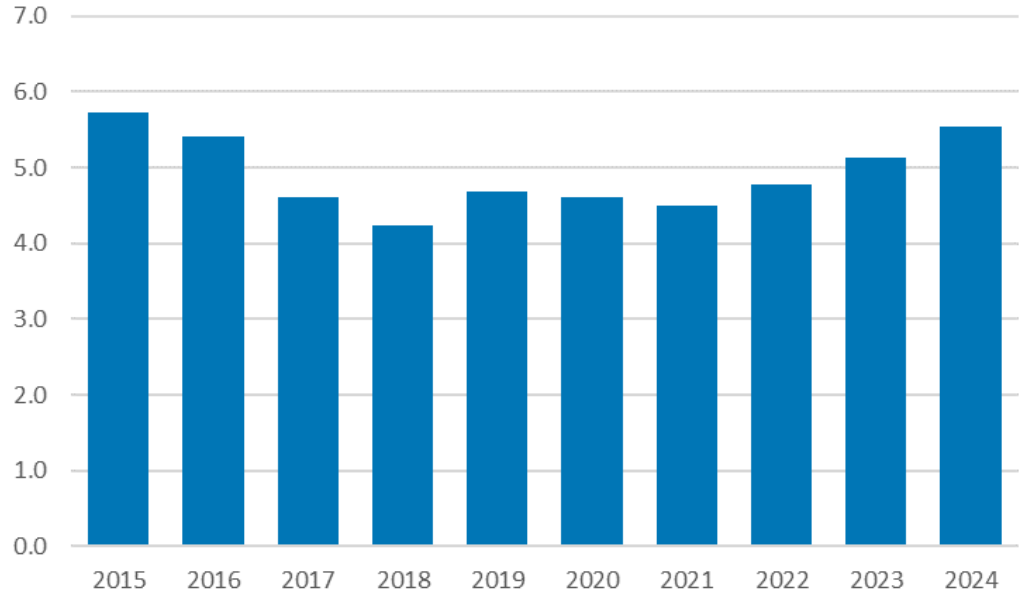
Investment and productivity will be stronger over the next couple of years as the industry expands to add capacity to meet additional demand and also investments are made to support technological advancements and improved intermodal freight connectivity. (See Figures 3.2.8. and 3.2.9.) There have been some interesting technological advances already. For instance, in 2019, Canadian National Railway acquired the logistics provider TransX and the intermodal division of H&R Transport Ltd expecting to allow itself to deepen its reach into the consumer economy by leveraging its rail network to consolidate more shipments into intermodal loads.[27]

[27] Journal of Commerce, “Canadian rails take different tracks to attract intermodal.”

Canadian National has also announced a new short-haul intermodal service designed to decrease truck traffic in the Halifax, Nova Scotia, area. In conjunction with the Halifax Port Authority, ocean carriers, and customers, the railroad is expected to add service between its Moncton, N.B., intermodal ramp and the Port of Halifax — a distance of about 170 miles and move container traffic that currently is handled by trucks.[28]

In this context it would be interesting to look at some of the findings presented by the Association of American Railroads in a theoretical scenario on truck traffic being replaced by rail traffic in the United States. This analysis finds that if 25 per cent of the truck traffic moving at least 750 miles was replaced by rail the annual greenhouse gas emissions would fall by approximately 13.1 million tonnes and would be equivalent to taking 2.6 million cars off the highway for a year or planting nearly 200 million trees.[29] While the outcome of these scenarios are dependent on various assumptions, it does highlight the role that the rail freight industry plays in reducing the GHG emissions in the environment and how investments in technology to upgrade the sector could have a hugely important role to play.

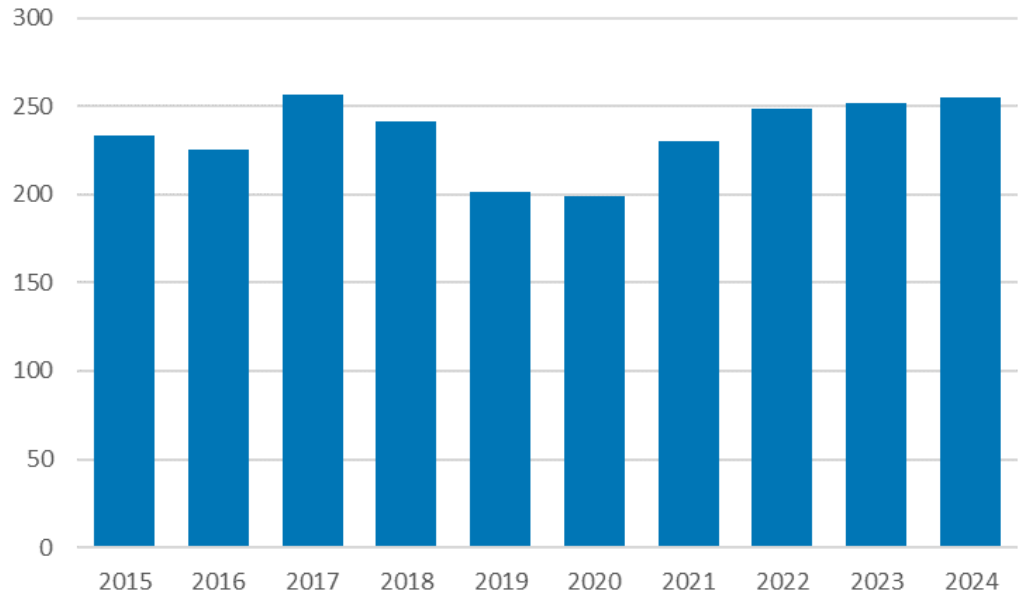
Figure 3.2.8
Investment increases from 2022 onwards
(nominal investment, $ billions)



Sources: The Conference Board of Canada; Statistics Canada.

[28] Trains.com, " CN announces new short-haul intermodal service in Nova Scotia."
[29] Global Railway Review. "A bright future for U.S. rail freight."

Productivity surpasses pre-Covid-19 levels from 2022 onwards
(GDP/employment, $2012 thousands)



Sources: The Conference Board of Canada; Statistics Canada.

A recent important development to track would also be the announced plan by Canadian Pacific Railway to acquire Kansas City Southern which if and when it happens would lead to the first seamless continental rail network connecting Canada, Mexico and the United States.[30]

3.3 Water Transportation

Recent performance

Most economic activity in water transportation is generated through freight (as opposed to passenger) transportation—particularly exports. According to the Association of Canadian Port Authorities, almost one fifth of the volume of Canada's exports to the United States and 95 per cent of the volume of Canada's exports to other countries is carried by ship.[31] As a result, the industry heavily depends on developments in the world economy and trade. Nevertheless, the industry also relies on household spending and tourism as it transports passengers within and outside Canada.

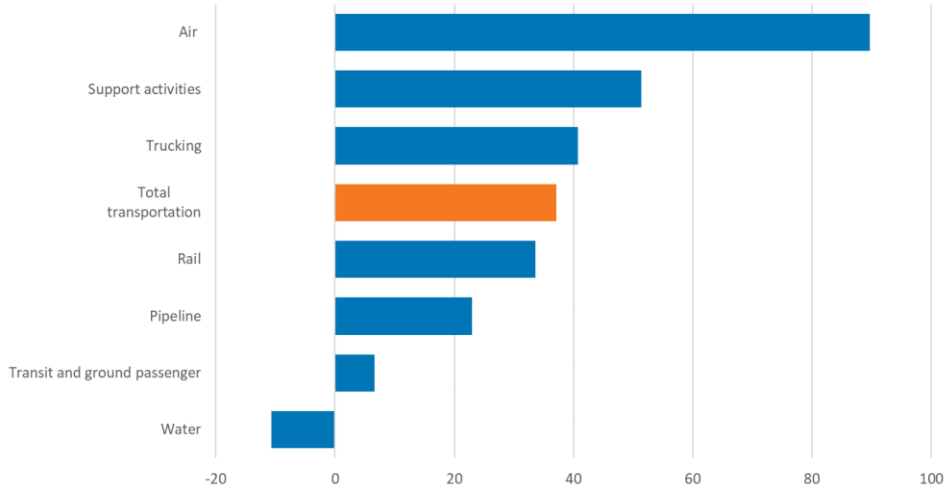
In terms of economic performance, water transportation has underperformed the overall transportation sector in the decade following the 2008-09 recession. For example, industry GDP in 2019 was still 11 per cent below

[30] Globe and Mail, "CP Rail, Kansas City Southern ask U.S. regulator for quick consideration of US$25.2-billion merger."
[31] Association of Canadian Port Authorities, "Industry Information: Canadian Port Industry."

2008 levels.[32] (See Figure 3.3.1.) In comparison, all six other transportation industries had surpassed pre-recession levels 'output', with GDP for the overall transportation sector up 37 per cent in 2019 compared to 2008. One reason why water transportation has not seen GDP recover to pre-recession levels is because it could not capitalize on Asia-driven export growth, because Canada does not have many water transportation companies covering international routes to the continent.[33]

Figure 3.3.1

GDP has not recovered to pre-recession levels in water transportation
(percentage change in GDP, 2008 to 2019)



Sources: The Conference Board of Canada; Statistics Canada.

However, GDP data, is unlikely to be representative of the industry's actual economic performance. For example, nautical miles traveled by tugs, cargo, container, dry bulk, and tanker vessels on Canadian waters rose by 13 per cent between 2015 and 2019.[34] At the same time, nautical miles by passenger vessels (including ferry and cruise) were up 28 per cent.[35] This is well above water transportation's 5 per cent GDP increase over this same period. This discrepancy is likely to reflect the fact that a significant quantity of freight that passes through Canadian waters is carried by foreign flagged ships and these are treated as an import of

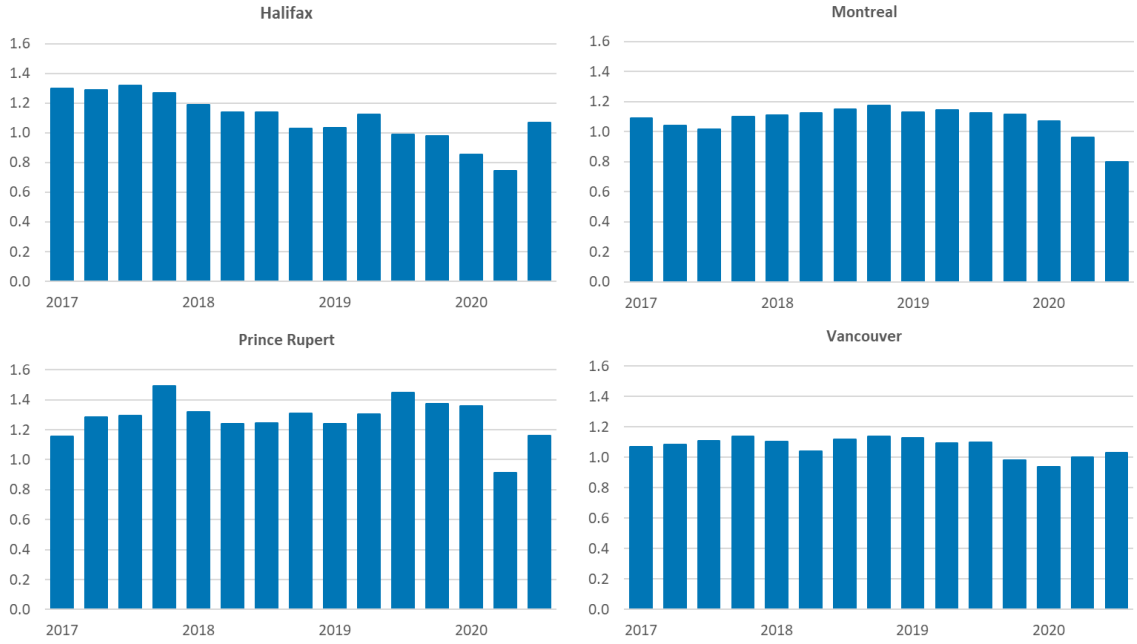
[32] Notably, water transportation saw GDP decline by 5.8 per cent in 2016. While there is no clear reason for a decline of this magnitude, the Transportation in Canada 2016 report suggests that modest global economic growth translated into lower traffic volume in the Canadian transportation system, especially in the first half of the year. Demand slightly picked up in the second half of 2016, but remained below 2015 level for key bulk commodities, intermediate and finished goods. Reduced transport of bulk commodities would disproportionately impact water transportation.
[33] Transport Canada, "Transportation and the Economy."
[34] The number of nautical miles sailed are based on fused terrestrial and satellite Automatic Identification System (AIS) data processed and analyzed by Transport Canada. Nautical miles sailed were computed for all Canadian waters within the Exclusive Economic Zone (EEZ).
[35] Transportation in Canada 2019 – Statistical Addendum.

water transportation services. As such, they would not contribute, and may even detract, from water transportation GDP.

Irrespective of this potential underestimation in industry activity, initial expectations were that 2020 would bring moderate improvements in global economic growth and trade—following lingering trade tensions and high policy uncertainty in 2019. The COVID-19 pandemic toppled these expectations. Supply-side disruptions in China, eventually followed by a global demand shock, contributed to lockdowns and factory closures across the world that reduced demand for maritime transport.[36] The repercussions of these developments were felt across Canada, where container volumes at major ports weakened. Most notably, in the second quarter of 2020, the Port of Halifax saw container traffic fall 25 per cent below its 3-year average. (See Figure 3.3.2.) Fortunately, these declines were short-lived, with the Ports of Halifax, Vancouver, and Prince Rupert returning to 3-year average container volumes by the third quarter of 2020.

Figure 3.3.2

Canada's East Coast ports hit hardest by the COVID-related slowdown in global economic activity
(commodity flow indicator* by port)



* Amount of container twenty-foot equivalent units (TEUs) handled by a port in the current period compared to the average amount of TEUs handled in last three years.

Sources: The Conference Board of Canada; Statistics Canada. Table: 23-10-0271-01.

From an employment perspective, water transportation experienced disproportionately large losses during the early months of the COVID pandemic. Compared to the estimated 12.5 per cent decline in revenues in the

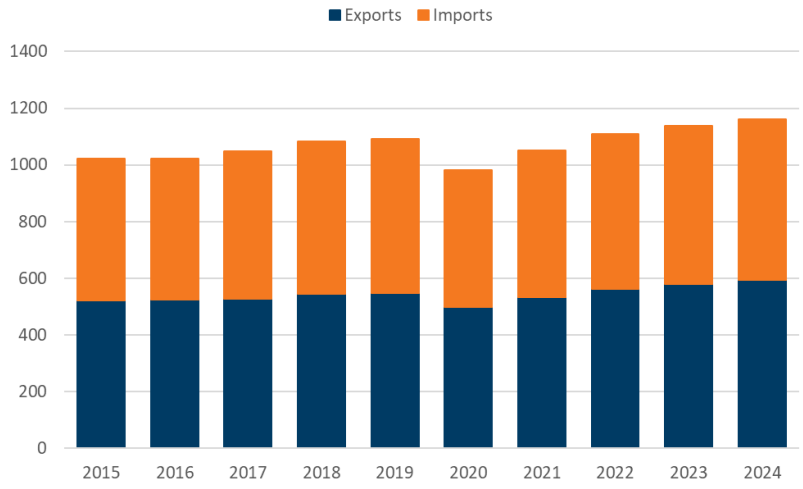
[36] United Nations Conference on Trade And Development, *Review of Maritime Transport 2020*.

second quarter of 2020, industry employment shrunk 33 per cent (~5,200 jobs).[37] Safety measures applied to contain the spread of the virus—such as a deferred start of the cruise ship season, and passenger limitations on essential as well as non-essential commercial vessels[38]— contributed to lower employment in the industry.

Outlook

The economic outlook for Canada's water transportation industry will continue to parallel Canada's goods trade. After falling by a respective 9 and 11 per cent in 2020, exports of goods out of Canada and imports of goods into Canada are forecast to rebound to pre-COVID levels by 2022. (See Figure 3.3.3.) Thereafter, however, we expect growth in goods trade to moderate from their pre-COVID trajectories. Exports will expand at an annual average pace of about 2.4 per cent between 2023 and 2032—compared to 2.8 per cent between 2011 and 2019.[39] Weaker export growth is attributable to slower economic growth in some of our major trading partners—such as the United States, China, and the European Union. Imports, in turn, will grow by 1.7 per cent per year between 2023 and 2032—compared to 2.5 per cent between 2011 and 2019. Import demand will be restrained over the long term by weaker growth in household spending. Also, families are expected to spend a greater share of their income on services, which generally are not imported from abroad.

Figure 3.3.3
Goods trade expect to recover to pre-COVID levels by 2022
(imports and exports of goods, Canada, $2012 billions)



Sources: The Conference Board of Canada; Statistics Canada.

While improving trade and opportunities to grow exports in domains such as liquified natural gas (LNG) will support demand for water transportation, the composition of the industry's cargo suggests headwinds ahead.

[37] Employment and financial data that we outline in this section, like GDP, reflect the water transportation industry as defined by Statistic's Canada NAICS 483. This data would not capture activity generated by foreign flagged ships.
[38] Transport Canada, "Transportation in Canada 2019."
[39] We exclude 2010 in this average because its strong growth reflects a rebound from the 2008-09 recession.

Indeed, ships are a primary mode of transportation for oil and forestry products, commodities facing decelerating export growth. The former faces a global decarbonization agenda, which is expected to contribute to a gradual shift in the global energy mix from fossil fuels to renewables.[40] The latter will be limited by fibre supply constraints in British Columbia, and shrinking demand for many paper products.

Another critical risk to the industry's economic outlook is the regionalization of supply chains. The COVID-19 pandemic exposed the fact that many businesses are overly reliant on imports of key production inputs.. To mitigate future supply-chain risks more businesses are considering ways that they can shorten their supply chains. A recent Conference Board of Canada survey of Canadian firms found that 43 per cent would source more inputs from local suppliers after the pandemic is over.[41] Such a shortening of supply chains would have disproportional impacts on water transportation that is heavily dependent on transoceanic transport.

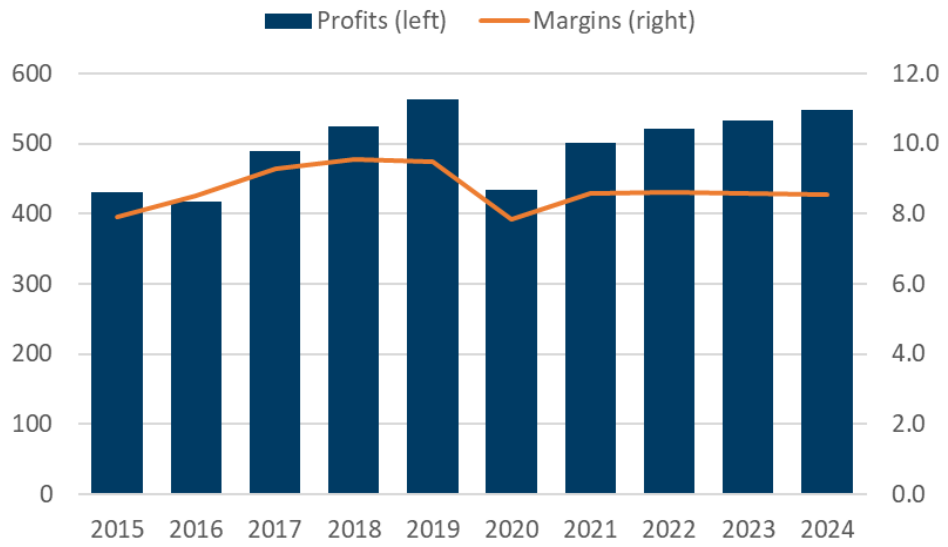
While downside risks to demand for water transportation loom, we expect growth in water transportation GDP to improve relative to its pre-COVID trajectory. Between 2020 and 2024, GDP in water transportation is expected to grow by an average of 0.9 per cent per year. This compares to only 0.5 per cent per year between 2010 and 2019.

The financial performance of water transportation is also forecast to improve beyond 2020. Revenues will receive a boost from the recovery in shipping activity, rising from an estimated $5.4 billion in 2020 to $6.4 billion by 2024. Industry costs are also projected to rise in the forecast; however, a tepid recovery in employment will dampen labour cost growth, while a rebound in material cost growth will be limited by depressed crude oil prices. Against this backdrop, the industry will see a boost to profitability in 2021, though margins will level off around 8.5 per cent through 2024—slightly below their pre-COVID levels. (See Figure 3.3.4.)

[40] United Nations Conference on Trade And Development, *Review of Maritime Transport 2020*.
[41] The Conference Board of Canada, "Bringing Them Home: Reshoring Supply Chains Is Not a Panacea."

Figure 3.3.4

Margins to rebound in 2021, but remain below pre-COVID levels
(left axis: pre-tax profits, $ millions;
right axis: pre-tax profit margins, per cent)



Sources: The Conference Board of Canada; Statistics Canada.

3.4 Truck Transportation

Recent performance

Truck transportation, the largest industry in the transportation sector in terms of both GDP and employment, enjoyed healthy economic growth between 2010 and 2019. Over this period, industry GDP grew at an average annual pace of 3.8 per cent, mirroring the trajectory in the overall transportation sector. However, growth over this decade was uneven. Following the 2008-09 recession, demand for truck transportation grew fastest, spurred by rising merchandise trade. Against this backdrop, industry GDP expanded by 4.9 per cent per year between 2010 and 2014.

The fortunes of truck transportation deteriorated in the wake of the 2015 oil price collapse, which set off a period of weaker economic growth in Canada and slowing goods trade. Making matters worse, the industry was becoming increasingly constrained by truck driver shortages, which had more than doubled from an

annual average of 8,600 in 2016 to 20,500 in the first three quarters of 2019.[42] Thus, GDP grew at a slower 2.7 per cent per year between 2015 and 2019.

Despite the slowdown in GDP growth in the latter part of the decade, the financial performance of the industry remained sound. Lower fuel prices dampened overall cost growth, while higher output prices, presumably influenced by trucking business' pricing in capacity constraints, boosted revenues. The industry was also benefitting from efficiencies in logistics. For example, the average load carried by trucks increased by 22 per cent, from 9.7 tonnes in 2008 to 11.8 tonnes in 2018.[43] This explains why tonne-kilometres by truck rose 20 per cent over this period, although shipments only rose by a meager 5 per cent.[44] All in all, truck transportation generated pre-tax profits of $4.7 billion in 2019 (at a margin of 6.5 per cent), more than double its $1.9 billion profits in 2010 (margin of 4.5 per cent).

Truck transportation was significantly disrupted by the COVID-19 pandemic. Industrial shutdowns in China, intended to slow the spread of the virus, contributed to global supply chain disruptions, and shrinking global trade in early 2020. These supply-side disruptions were followed by demand shocks, as countries including Canada mandated lockdowns, leading to slumping consumer spending. While online shopping prevented stronger declines to consumer spending, demand for freight transportation dipped. As a result, truck transportation saw GDP decline by 18 per cent in the second quarter of 2020—the largest decline among freight transportation industries. Truck transportation also shed 38,800 jobs over the first two quarters of the year, including 11,200 in freight arrangement services.

Fortunately for the industry, shipping levels appeared to be rebounding in the summer. The number of trucks entering Canada from the U.S. all but returned to pre-COVID levels by July, after declining by 31 per cent between February and April. (See Figure 3.4.1.) Similar timely data is not publicly available for domestic trucking movements. However, truck driver employment, which represents a useful proxy for domestic trucking activity, rose to 313,800 in August, after falling from 308,800 to 283,800 between February and June. Since August, employment has moderated, amid more stringent lockdowns to manage the second wave of the pandemic. At 297,600 in December, it remains slightly below pre-COVID levels.

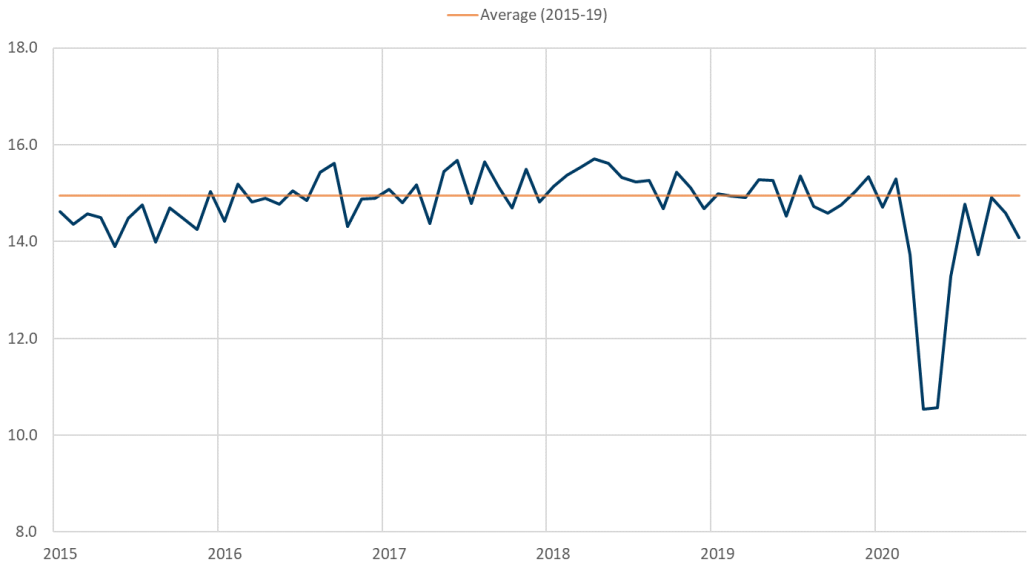
A key reason why truck transportation has proven to be resilient during the COVID-19 pandemic is that it was deemed an essential service. As of midnight, March 21, 2020, the Canada-United States border became closed to "non-essential travel". To preserve the supply chains that transport food, fuel and lifesaving medicinal

[42] TruckingHR Canada, "The Road Ahead: Addressing Canada's Trucking and Logistics Industry Labour Shortages."
[43] Statistics Canada. Table 23-10-0219-01 Trucking commodity industry activities.
[44] Statistics Canada. Table 23-10-0219-01 Trucking commodity industry activities.

supplies, truck drivers that moved cargo between the United States and Canada were considered “essential” and authorized entry into Canada.[45]

Figure 3.4.1

Trucking activity rebounds in summer, remains below pre-COVID levels
(trucks entering Canada, thousands, seasonally adjusted daily rate)



Sources: The Conference Board of Canada; Statistics Canada. Table: 24-10-0002-01.

Outlook

Over the near term, the economic recovery in truck transportation will parallel the rebound in the Canadian economy. The rollout of vaccines started in December in Canada, and most of the population is expected to be immunized by September 2021. As vaccines are made widely available, both in Canada, and globally, we expect consumer and business confidence, investment, and trade, to improve. We also expect the relaxing of restrictions on movement that come with the widespread vaccination of Canadians will kickstart the spending of a portion of the significant savings that households have amassed during COVID-19 pandemic. Given that much of this spending would accrue in services industries such as accommodation and food services, trucking businesses would likely indirectly benefit through increasing demand for goods inputs into these industries.

[45] Jaclyne Reive and Mabel Kyei, “COVID-19’s Impact on Trucking Industry: Part One.”

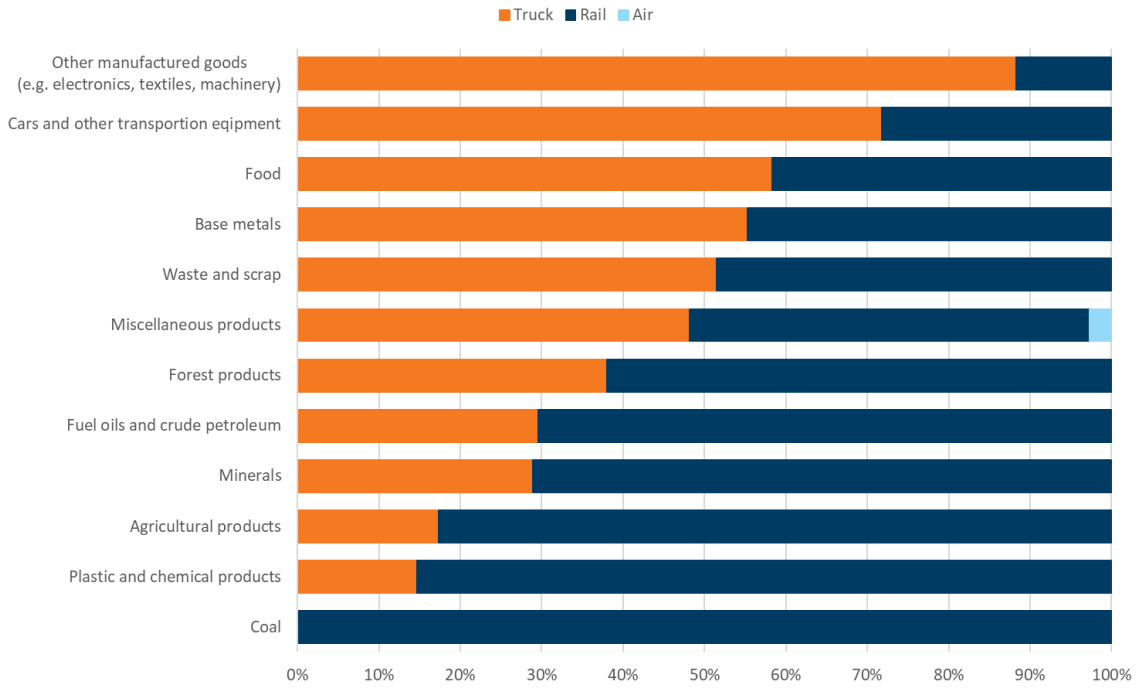
Until most Canadians become immunized, we expect the Canadian economy will continue to operate below capacity, reflecting varying degrees of travel restrictions aimed at managing additional waves of the virus.

Canada's merchandise trade will shape the outlook for truck transportation. In our previous forecast[46] for the transportation sector, completed prior to the outbreak of the COVID-19 pandemic, we recognized that demand for trucking services would depend on Canada's merchandise trade. Canada's economic growth was slowing against the backdrop of an aging population, and elevated consumer debt levels. Thus, businesses were increasingly needing to tap into foreign markets to sell their goods. The COVID-19 pandemic has significantly weakened global trade and driven many businesses to consider the inherent risks of globalized supply chains. This may result in more local sourcing of inputs (when possible) over the medium-term, which may marginally impact truck transportation to the extent that it reduces freight travel distances. However, we do not expect that COVID-19 will ultimately change Canada's need to look abroad to grow their sales. Thus, growth in goods trade is forecast to outpace growth in the Canadian economy for the foreseeable future.

Despite a generally positive trade outlook, trade volumes for several key trucking commodities are projected to slow significantly over the medium term. According to Statistics Canada's Freight Analysis Framework, trucks are the preferred mode of freight transportation for manufactured goods, particularly, cars, food, electronics, and machinery. (See Figure 3.4.2.) In contrast, trucks are less likely to transport commodities such as minerals, plastic and chemicals, and agricultural products. Unfortunately, we expect weaker trade growth for several manufacturing goods most often transported by trucks. Most noticeably, Canada's trade (exports plus imports) in motor vehicles and parts is forecast to slow from 7.8 per cent per year between 2010 and 2019 to 2.7 per cent per year between 2020 and 2029. (See Figure 3.4.3.) This partly reflects behavioural changes such as altered commuting patterns and the continuing shift to online retail that will present challenges for an auto industry that relies on consumers needing vehicles to drive to work and to shop.

Figure 3.4.2
Most finished or partially finished goods are transported by trucks
(percentage of freight transported by mode, 2017)

[46] The Outlook for Canada's Transportation Sector 2019-2035.

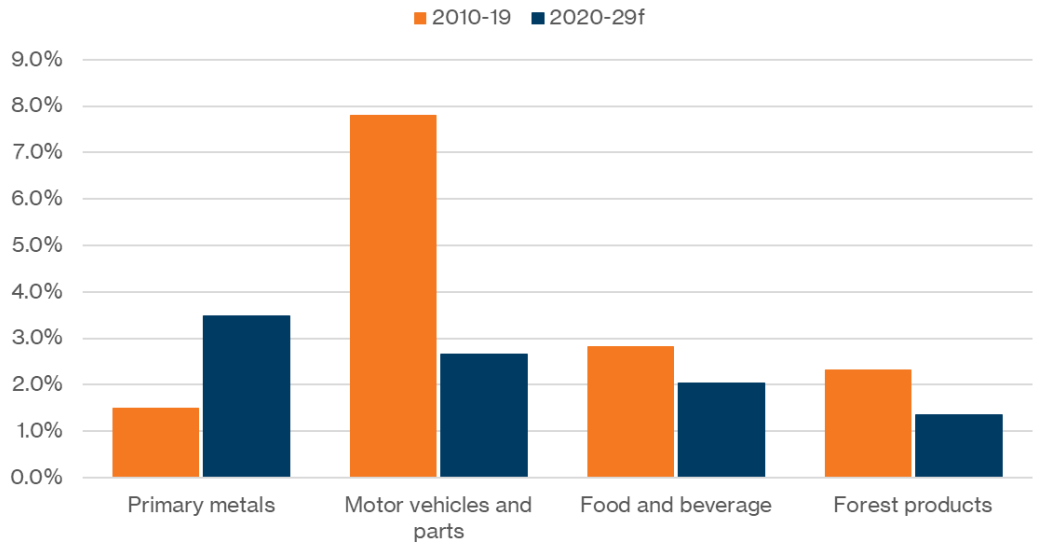


Sources: The Conference Board of Canada; Statistics Canada. Canadian Freight Analysis Framework.

Figure 3.4.3.

Trade in key trucking commodities expect to slow

(average annual percentage change in merchandise trade, Canada)



f = forecast.
Source: The Conference Board of Canada; Statistics Canada.

While rising trade will provide opportunities for businesses in truck transportation to grow, labour shortages could limit their ability to capitalize on increasing demand. Prior to the COVID-19 outbreak, the industry faced

significant labour shortages, particularly for truck drivers. These were set to worsen, with an estimated 25,000 truck driver positions forecast to go unfilled across Canada by 2023—an increase of over 25% compared with 2019.[47] The economic fallout from COVID-19 may have moderated this labour imbalance temporarily, however, the recovery in the Canadian economy could reactivate this shortage. Even worse, labour shortages could be more severe if the industry experienced any permanent decline in its labour force during the pandemic, such as accelerated retirements. Over the long-term, fully autonomous trucks will help the industry to manage such shortages, but over the short to medium term, there will be no obvious remedy.

Under the assumptions laid out above, we predict that GDP in truck transportation[48] declines by 10.2% in 2020, before averaging gains of 3.5% between 2021 and 2024. This reflects the performance of key industries that drive demand for trucking services, as identified through the Input-Output structure of our long-term economic model for the Canadian economy. For example, GDP in forestry (logging, wood products manufacturing, and paper products manufacturing) is only expected to be 1.2% above 2019 levels by 2024. In turn, GDP in motor vehicle and part manufacturing is only forecast to be 5.4% above 2019 levels by 2024. This modest growth will limit the recovery in truck transportation. Employment growth in the industry will also moderate amid prevailing labour shortages. After declining to roughly 310,200 in 2021, we anticipate employment to rebound to 318,100 workers by 2024—above its average of 308,700 between 2015 and 2019.

Finally, the financial performance of truck transportation is forecast to improve beyond 2020. Revenues will receive a boost from the recovery in trucking activity, rising from an estimated $62.7 billion in 2020 to $76.9 billion by 2024. The industry is also expected to gradually benefit from fuel efficiencies because of truck platooning—whereby trucks in a convoy are linked by a computer system that controls acceleration and braking[49]. Costs, in turn, are also projected to rise in the forecast, although softer job growth and lower crude prices will limit gains. Against this backdrop, the industry will see pre-tax profits return to pre-COVID levels by 2022. Margins will level off around 6.8 per cent through 2024—in line with their pre-COVID levels.

3.5 Transit and Ground Passenger Transportation

Recent performance

[47] TruckingHR Canada, “The Road Ahead: Addressing Canada’s Trucking and Logistics Industry Labour Shortages.”
[48] Our forecast for truck transportation covers NAICS 484. This includes for-hire trucking activity but would not include the not-for-hire segment. Thus, economic activity generated by non-trucking businesses that own their own fleets would not be captured.
[49] Heavy Duty Trucking, “Canada’s First Truck Platoon Hits the Road.”

The ground transportation industry includes several distinct segments, the objective of each being to move passengers between destinations. In terms of the share of GDP, urban transportation is the largest contributor amongst these multiple segments.[50]

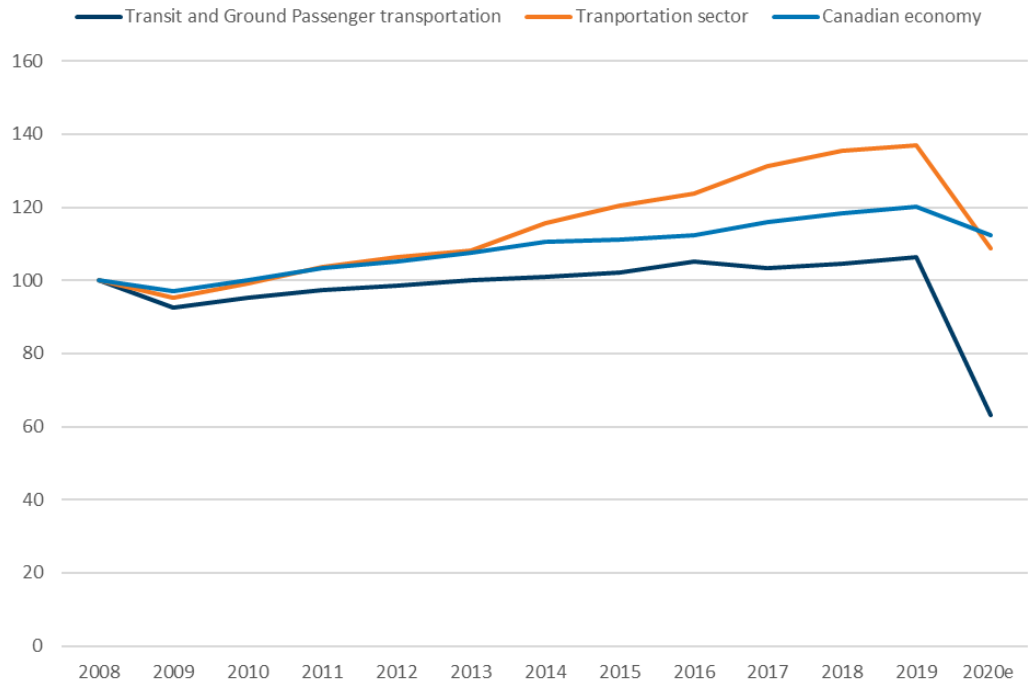
Compared to both the Canadian economy and transportation industry total, transit and ground transportation industry annual average growth of GDP has been significantly lower at 1.4 per cent over 2010-2019. (See Figure 3.5.1) Apart from water transportation industry, this has been the transportation sector that had been growing at the slowest pace prior to the pandemic. The pandemic has had a strong impact on the industry with GDP growth having declined by 40.7 per cent from 2019 to 2020. The fear of transmission of the virus in shared spaces, the various phases of lockdowns and the increases in working and studying from home since the onset of the pandemic have been some of the contributing factors towards this decline in economic growth.[51]

As of December 2020, Canadian public transit networks carried 52.5 million passengers, down 65.8% from December 2019, following similar year-over-year declines in October and November. Total operating revenues (excluding subsidies) was $131.0 million in December 2020, 61.3% or $207.7 million lower than in December 2019.[52] (See Figure 3.5.2.) From when the pandemic began and the restrictions were imposed, there was a steep fall in passenger numbers and revenue until May 2020. From May to September 2020, there was a gradual increase in revenue and passengers. Though with the stringent lockdowns and the fear of virus mutations and new strains of virus, there has been a downturn again.

Figure 3.5.1

The pandemic has had a heavy toll on transit and ground passenger transportation
(index of real GDP, 2008 =100)

[50] CBoC- The Outlook for Canada's Transportation Sector, 2020.
[51] This section on ground transportation takes some of the analysis and findings from the report submitted to Transport Canada recently 'Covid-19 Trends Reshaping Urbanization-Implications for Transportation'.
[52] Government of Canada, "The Daily — Urban Public Transit, December 2020."

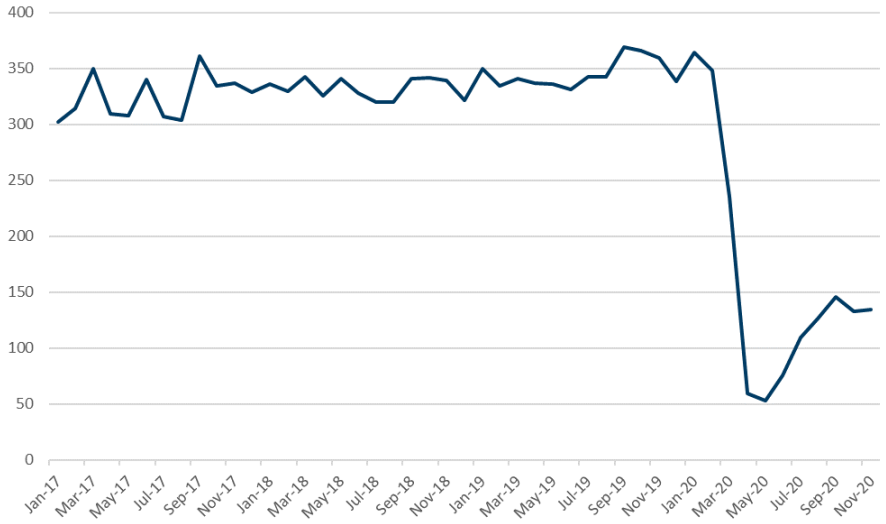


e = estimate
Source: The Conference Board of Canada; Statistics Canada.

While transit and ground transportation services are expected to service the whole of the country and be spread across, the reality is that increased urbanization has led to most services being focused on urban areas. More than 80 per cent of Canadian population is urban and more than 40 per cent of the total population in Canada lives in four of the most populated Census Metropolitan areas. Therefore, over the last few decades, the infrastructure services and policies across Canada, including within the transit and ground transportation sector, have developed to address the needs of increasing urbanization. Public transportation expenditure has mostly been in those provinces where majority of the population is concentrated. (See Figure 3.5.3). This is not surprising given that transportation investment is influenced by demand for services. Scale economies is a determining factor as well. As the figure below indicates majority of public transportation expenditure (83 per cent) is across Quebec, Ontario, the Prairies, and British Columbia. Despite the high levels of investment, per person expenditure is low in these provinces indicating the density of population and the continuing need for infrastructure despite high levels of existing investment. [53]

Figure 3.5.2
The pandemic has significantly impacted the urban passenger transit system
(Operating revenues, urban transit, $ millions)

[53] The discussion in this section is based on our research and findings from the Urbanization report submitted along with this set of TC reports.

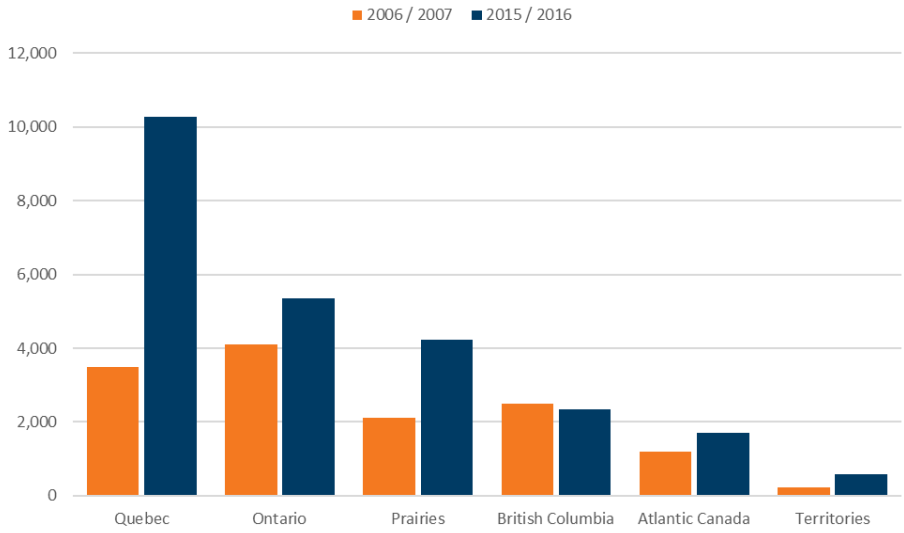


Source: The Conference Board of Canada; Statistics Canada.

Figure 3.5.3

Majority of public transportation expenditure has been in Quebec, Ontario, Alberta and British Columbia

(public expenditure in transportation across provinces, $ millions)



Source: The Conference Board of Canada; Statistics Canada.

Transportation services benefit from scale. Consequently, most public transportation infrastructure within the country, as discussed earlier, is focused in highly dense urban areas. Public funds are limited and the concentration of services in urban areas therefore translates into lower investment in rural areas. This is revealed by the table below which reveals that rural municipalities enjoy very limited public transportation services.

Table 3.5.1

Provision of public services are mostly concentrated in urban municipalities

(Total number of services and total kilometres)

Transportation service provided	All urban municipalities	All rural municipalities
Numbers		
Total buses	15,193	48
Heavy railcars	2,056	0
Commuter railcars (locomotives and passenger)	353	0
Light railcars	299	0
Specialized transit	1,060	94
Passenger stations/terminals	592	18
Transit shelters	23,928	159
Passenger drop-off facilities	194	0
Kilometres		
Tracks	905	0

Source: The Conference Board of Canada; Statistics Canada.

Defining features of rural areas in Canada are low-density populations and long distances. These characteristics make transportation particularly challenging for rural residents, as distances may be too long for the use of active transportation (e.g. walking or cycling), longer distances may result in higher costs for motorised transportation, and services and their users may be quite far apart. Further, the population in these areas are lower but the age profile of the population is older and therefore more dependent on non-automobile transportation services. But the non-automobile transportation alternatives including the system of buses at the local level and intercity bus and passenger services at the regional level is limited, fragmented and inconsistent.

A small or rural community that is located on the edge of a larger urban centre may be able to take advantage to some extent of the urban transit services proximate to it. For example, once 11 municipal governments were amalgamated into the new City of Ottawa in 2001, Ottawa's transit authority, OC Transpo, began offering rural transit service to several smaller communities in and around the city boundaries.[54]

But this might not be the case for those rural areas that are further away from urban cores. For instance, in 2017, the Saskatchewan Transportation company stopped its services in 2017 due to falling ridership costs. STC served 253 communities, but the only profitable route was Regina to Saskatoon and occasionally Saskatoon to Prince Alberta.[55] After the Saskatchewan Transportation Company (STC) closed its services last year, several private companies expressed interest to take over the routes. Eight companies got certificates to operate in Saskatchewan but only two, Rider Express and DiCal Transport, eventually offered scheduled routes. In 2018, the Greyhound Bus services stopped their services, both passenger and freight, in Western Canada due to falling ridership and unaffordable provision of services. Given these developments most of the western provinces that

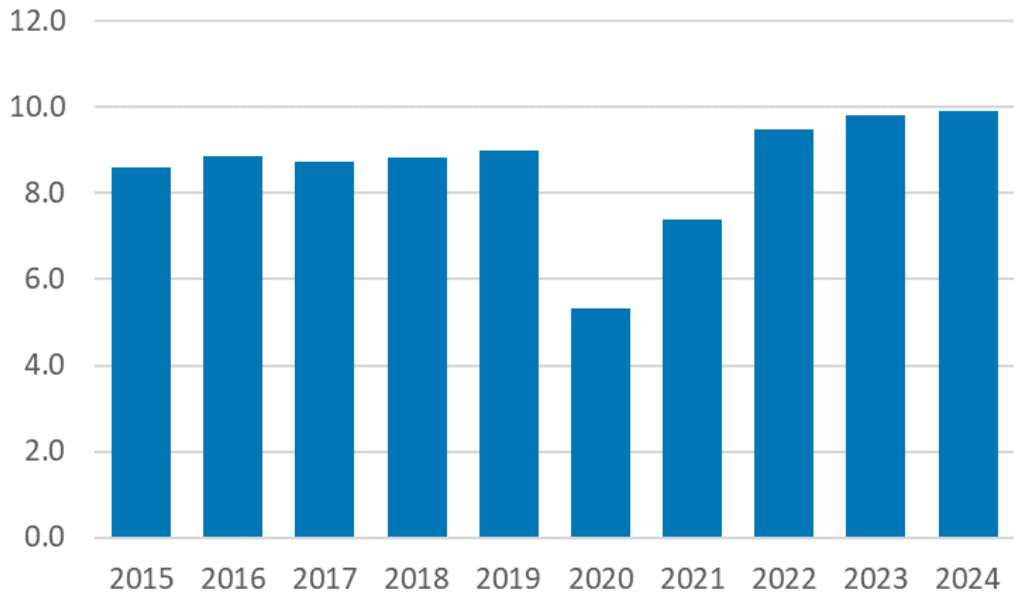
[54] Marr Eric. "Assessing Transportation Disadvantage in Rural Ontario, Canada: A Case Study of Huron County."
[55] The Western Producer, "Rural Sask. hit with funding, bus transportation cuts."

are primarily rural have extremely patchy services that are offered to its residents. Given the economic hardships imposed by COVID-19 on transportation agencies, this situation might be even more impacted.

Outlook

The economic outlook for transit and ground transportation industry is positive and closely related to the overall economic outlook. The industry GDP is expected to recover to pre-COVID levels by 2022 before growing by 2.1% per year through 2024. (See Figure 3.5.4.) This sector has historically contributed a quarter of the employment and around 11 per cent of total GDP generated by the total transportation sector. These trends are expected to continue in the short term. (See Figure 3.5.5.) In terms of financial performance, our model estimates that the profits earned by this industry have fallen significantly from 2020 onwards and it would take at least until 2023 for it to reach back to pre-pandemic levels. This upswing in profits is expected to occur because of the increase in revenues resulting from rising passenger numbers.

Figure 3.5.4
GDP recovers to pre-COVID levels by 2022
(GDP, $2012 billions)



Source: The Conference Board of Canada; Statistics Canada.

While the overall outlook is positive, there are multiple risk factors to this outlook. This outlook is dependent on efficient vaccine roll out, vaccine effectiveness and a reduced fear in the minds of people to return to shared travel spaces. The extent to which remote working and studying will continue will also determine the pace of recovery. A factor that would help boost the recovery of transit and ground transportation services particularly in urban areas would be the expected increase in immigration levels over the next few years. In response to the fall in the number of immigrants into the country, the Canadian government has announced that it would be

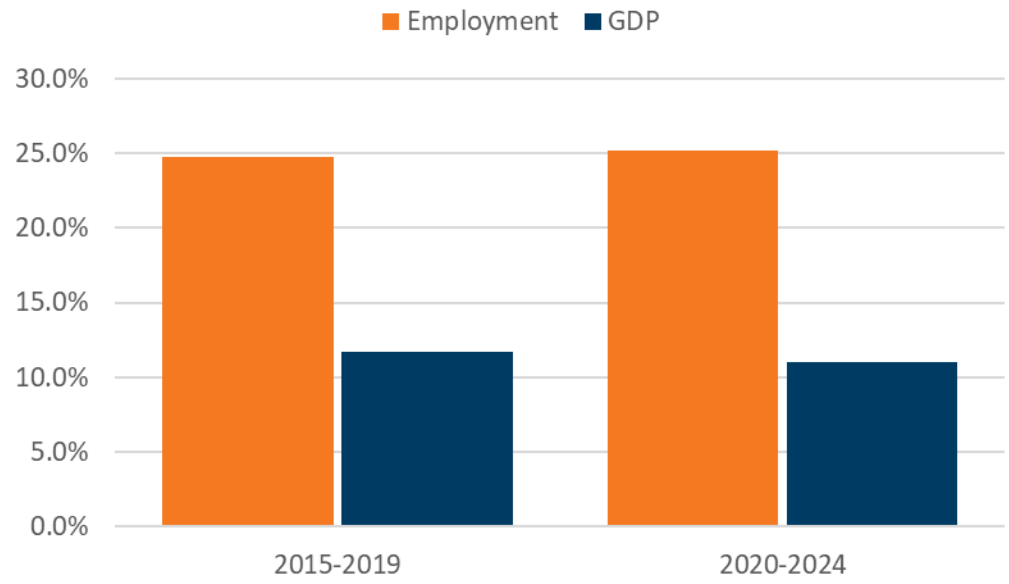
increasing immigration to boost its economic recovery from the coronavirus pandemic by welcoming more than 1.2 million newcomers between 2021 and 2023.[56] In a bid to ensure the new arrivals spur Canada's recovery, 60 per cent of the newcomers will be in the economic class, with the next largest group the family class, followed by refugees. Which means that most of these immigrants might move to the larger CMAs thereby stimulating growth in residential patterns and having implications on urban demographics and on transit ridership.

Another factor that might have an impact on ground transportation would be the growth of e-commerce as evidenced in the CBoC report on the impact of COVID-19-related trends on Urbanization and Transportation.[57] For instance, traditional warehousing and delivery modes would not be enough to service the increasing demand in urban centres' last mile deliveries and reverse logistics. Traditionally, warehouses for storage of goods have been outside urban centres with the primary objective being to store goods at a low cost. But with the increased penetration of e-commerce and with the advent of Amazon's same day or next-day delivery, the priority has shifted to reduce the time between an online placement of an order and the fulfilment of that order. This has led to the emergence of the urban warehouse. A recent study by Urban Toronto highlights one of the more important trends in response to increasing e-commerce as the development of fulfilment centres around the peripheries of the GTA and last mile/last touch centres distribution centres closer to the core with the objective of placing the to be delivered goods in a range of few yards to 50 kilometres of the destination. They also highlight the increasing significance of cold storage and grocery distribution centres being located just outside the cores with the objective of providing same day or next-day delivery of groceries with this being an increasingly growing category of e-commerce within Canada. The evidence and data on these trends are currently anecdotal but these are trends which would have impacts on supply chains and goods transportation between warehouses and final deliveries. While this could lead to increase demand for transportation services and subsequent employment, this could also lead to increased congestion and environmental costs if not adequately planned. A concern that is often raised in conjunction with increased growth of e-commerce is on compromised road safety.

Figure 3.5.5

Industry share of transportation sector GDP and employment to remain steady over the medium term
(transit and ground passenger transportation share of transportation sector GDP and employment)

[56] Immigration.Ca, 'Canada To Dramatically Increase Immigration to More Than 400,000 Per Year - Canada Immigration and Visa Information'.
[57] Conference Board of Canada, "Covid-19 Trends Reshaping Urbanization-Implications for Transportation"



Source: The Conference Board of Canada; Statistics Canada.

3.6 Pipeline Transportation

Recent performance

Prior to the coronavirus pandemic, pipeline transportation enjoyed robust economic growth. Between 2010 and 2019, real GDP in the industry grew by an average of 2.4 per cent per year, slightly above the 2.2 per cent rate of the overall Canadian economy. Growth was largely driven by rising crude oil production in Canada, which was spurred by project completions in the oil sands sector.[58] Higher natural gas production also supported pipeline demand; however, its contribution was more marginal than oil, limited by competition from surging U.S. gas production. All in all, Canada's crude oil and natural gas production increased by an average of 5.7 per cent and 0.4 per cent per year between 2010 and 2019, respectively.[59,60]

Despite robust growth in Canadian oil and gas production over the past decade, pipeline transportation experienced challenges. Notably, the industry faced pipeline capacity constraints, limiting its ability to transport higher oil and gas production. As a result, more oil was transported by rail. In addition, the fortunes of the pipeline transportation industry weakened in the wake of the 2014 oil price collapse. Although domestic crude oil production continued to increase in the aftermath of this price collapse, something which supported demand for pipeline transportation, lower oil prices meant substantial reductions in upstream spending on drilling and new production projects. This effectively lowered the industry's growth potential.

[58] Canada Energy Regulator, "Canada's Pipeline Transportation System 2016."
[59] Canada Energy Regulator, "Estimated Production of Canadian Crude Oil and Equivalent."
[60] Canada Energy Regulator, "Marketable Natural Gas Production in Canada."

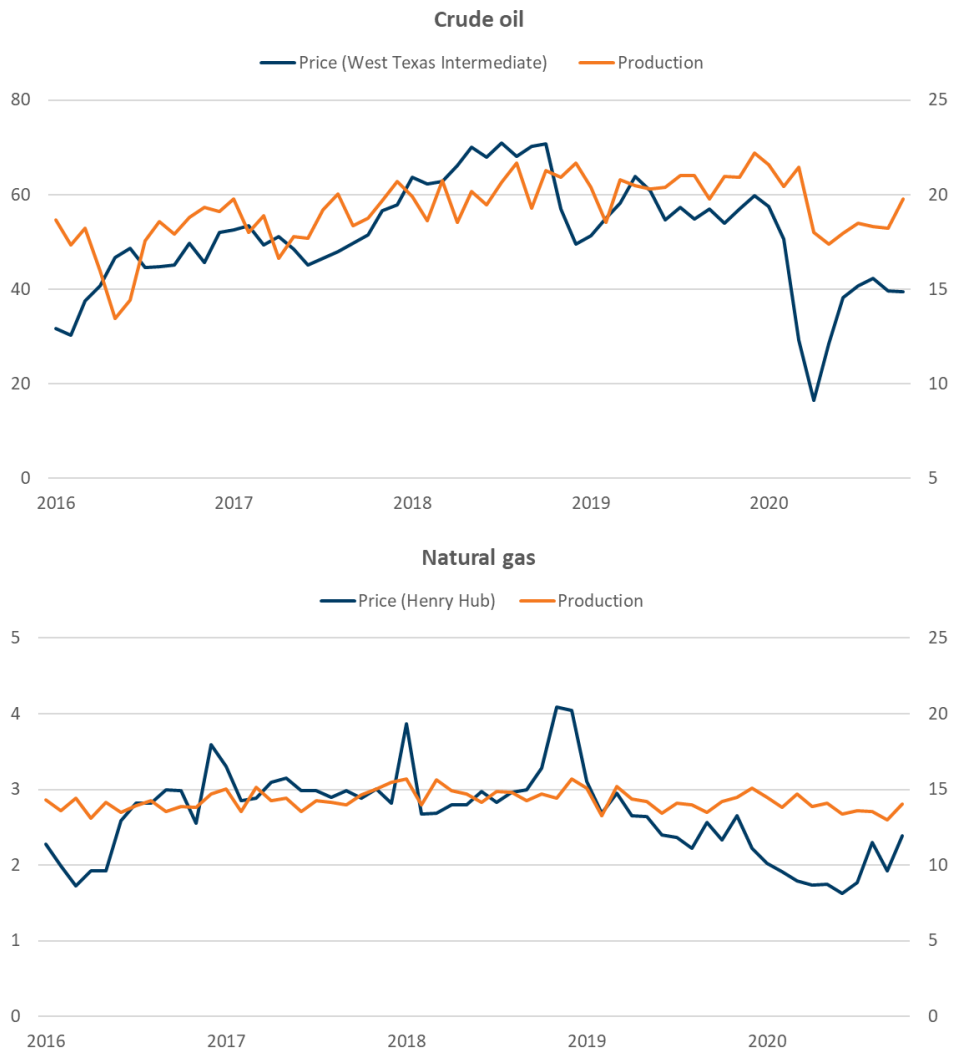
The spread of COVID-19 in late January further dimmed the prospects for pipeline transportation. Global oil demand fell with the freezing of large parts of the global economy, restrictions on travel and transport, and cuts in industrial activity and refinery output. By March, fears of a global economic recession intensified, driving down the price of West Texas Intermediate (WTI) to US$45 per barrel. Making matters worse, disagreements between members of the Organization of the Petroleum Exporting Countries (OPEC) and Russia on output cuts to counter weak oil prices, sparked an all-out price war. OPEC ramped up their supply, sending oil prices plunging to US$17 per barrel in April—their lowest levels since 2003.

Canadian producers responded to bottoming oil prices by scaling back production. The result was a cumulative 19 per cent decline in Canadian oil production between March and May.[61] Fortunately, oil markets made an encouraging comeback during the summer months; improvements in global demand coupled with OPEC supply cuts and weaker U.S. production, allowed oil prices to recover from historic lows in April. With WTI prices sustaining around US$40 per barrel throughout June to October, Canadian oil production began to recover, albeit gradually. In October, production was roughly 8 per cent down year-over-year. (See Figure 3.6.1.) On the other hand, Canada's natural gas production proved to be more resilient during COVID-19, holding fairly stable despite depressed prices that had materialized prior to the outbreak of the pandemic.

While the fortunes of the pipeline transportation industry are closely tied to Canada's oil and gas sector, it is interesting to note that pipeline transportation was somewhat insulated from the fallout of COVID-19, because it was able to absorb most of the oil that was previously being transported by rail. Rail transportation of crude oil is more expensive than shipping by pipeline so shippers tend to use it only when pipelines are full or if the destination market offers much higher prices than can be achieved in Canada.[62] The downturn in Canadian oil production during COVID-19 freed up pipeline capacity that ultimately absorbed most of the oil that was being transported by rail. This helps to explain why GDP in pipeline transportation was down 3 per cent year-over-year in November 2020 compared to 8 per cent in oil and gas extraction.

Figure 3.6.1
COVID-related decline in pipeline transportation tied to weaker crude oil production
(left axis: energy prices, U.S. $;
right axis: crude oil and natural gas production, Canada, millions of cubic metres)

[61] Steeper production declines did not materialize because not all production could be scaled back. For example, massive offshore platforms in Newfoundland and large-scale oil sands projects in Alberta cannot simply be turned off to abate profit losses. Operations such as these that have high fixed costs to get underway continued to produce oil, with many fighting off razor-thin profit margins and, in during some periods, negative cash flows.
[62] CBC, "Crude-by-Rail Exports Fall to 4-Year Low as Economic Slump Frees Pipeline Space."



Sources: The Conference Board of Canada; U.S. Energy Information Administration; Statistics Canada. Tables 25-10-0055-01 and 25-10-0063-01.

Outlook

Future demand for pipeline transportation in Canada will continue to depend on developments in global oil and gas markets and their influence on domestic production. In terms of oil, demand should gradually improve as the global economy recovers from COVID-19. However, depressed travel, particularly by air, will weigh down oil demand well into 2021. Beyond the near-term, global oil consumption is expected to increase at a significantly lower rate than it did leading into the pandemic. Economies will emerge from the recession with households, businesses, and governments facing new debt loads that will hinder their capacity to spend. The international community is also slowly beginning to hold itself more and more accountable for limiting greenhouse gas (GHG) emissions. The promise by the new Biden administration to bring the U.S. back into the Paris Climate Accord will reinforce this trend. Ultimately, growth in carbon-intensive energy sources will be held back by government policies, technological innovations, and changes in consumer preferences.

As reducing emissions becomes increasingly important, natural gas will occupy a key role. Natural gas is a relatively clean fossil fuel, making it an attractive alternative to coal and oil. Furthermore, in contrast to solar and wind energy, natural gas is a non-intermittent energy source that can easily be switched on or off. The use of natural gas will continue to increase due to growing residential and industrial demand as more and more Canadians switch to natural gas to heat their homes. Domestic demand will also benefit from rising crude production in the oil sands, where natural gas is an important input in the production process.

Between 2018 and 2050, the U.S. Energy Information Administration anticipates that population and economic growth will spur a 47 per cent increase in global energy consumption. Petroleum and other liquids will account for a shrinking share of overall energy consumption—27 per cent in 2050 versus 32 per cent in 2018; however, consumption of petroleum and other liquids is still set to grow by 23 per cent over the forecast period, driven by growing use in developing markets.[63] (See Figure 3.6.2.) Natural gas is expected to far better, with global consumption of the fossil fuel predicted to rise by 45 per cent between 2018 and 2050, roughly double the rate of consumption increase in petroleum and other liquids.[64] Nevertheless, its share of overall energy consumption is expected to stay flat over the forecast.

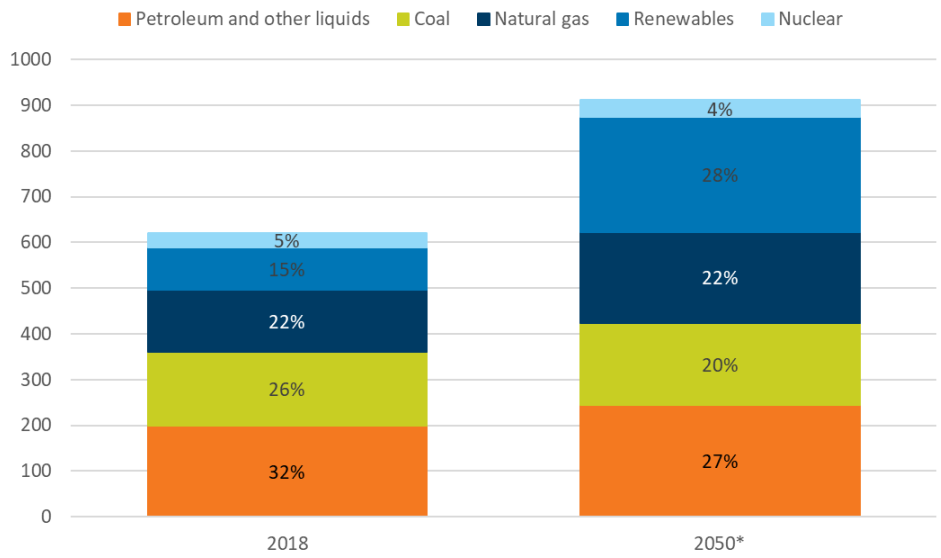
While global consumption of oil and gas are expected to rise, Canada's pipeline industry will be challenged in capitalizing on this increase. Canada needs to find new export markets for its surplus natural gas, as the United States becomes increasingly energy independent. In addition, the pipeline industry will depend on the approval of major projects to help alleviate constraints on oil exports. The recent cancellation of Keystone XL will limit capacity; however, the Trans Mountain Expansion (TMX) project should add a net surplus of takeaway capacity in Alberta by 2023. In addition, the LNG Canada project is well under way and will include the construction of two liquefied natural gas (LNG) trains on British Columbia's coast and an accompanying pipeline.

Under the assumptions laid out above, the economic performance of the pipeline industry will improve modestly between 2021 and 2024. However, this performance will pale in comparison to the industry's trajectory over the past decade. Real GDP is predicted to increase by 1.1 per cent a year between 2021 and 2024, compared to 2.4 per cent between 2010 and 2019. Employment growth in the industry will also moderate as businesses navigate the recovery, remaining frugal and focusing on maximizing productivity and lowering costs. After declining to 11,600 in 2020, we anticipate employment to level off at 12,800 workers by 2024—below its average of 14,500 between 2015 and 2019. Lastly, we expect investment in pipelines to soften over the forecast as slower revenue growth limits capital spending budgets. (See Figure 3.6.3.) This will feed into a lower output trajectory than was expected prior to the COVID-19 outbreak.

[63] U.S. Energy Information Administration, "International Energy Outlook 2019."
[64] Ibid.

Figure 3.6.2

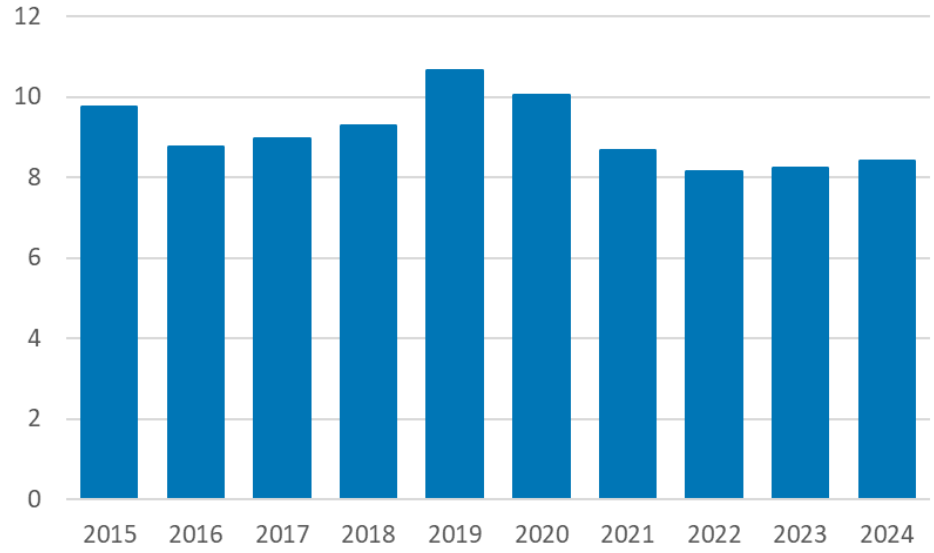
Global energy consumption by source
(quadrillion British thermal units)



* forecast
Source: U.S. Energy Information Administration.

Figure 3.6.3

Weakening investment dampening industry's growth trajectory
(pipeline investment, $ billions)



Sources: The Conference Board of Canada; Statistics Canada.

3.7 Support Activities for Transportation

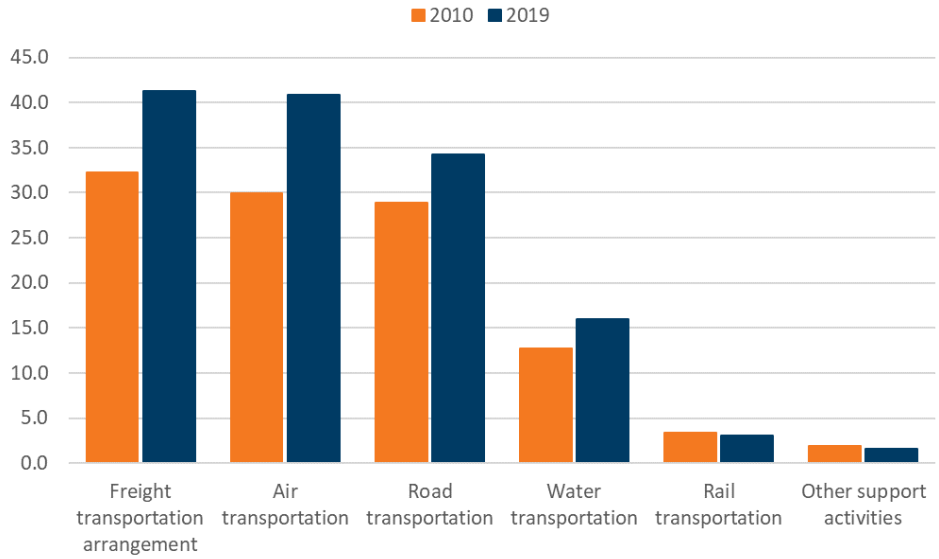
Recent performance

In the decade prior to the outbreak of the COVID-19 pandemic, conditions for firms providing support activities to transportation were strong. Between 2010 and 2019, support activities GDP increased by an average of 4.2 per cent per year thanks largely to the underlying strength of the transportation sector. Firms in the support activities industry also increased their payrolls by 28,100 positions over the same period, with the strongest employment growth occurring across businesses servicing air transportation. (See Figure 3.7.1.)

Support activities have also benefitted from their strong link to Canada's international trade. Roughly one third of businesses in the sector are engaged in activities that support either port and harbour operations, or freight transportation arrangement.[65] These span all modes of transportation and are most closely tied to the shipment of bulk goods and materials. Given the aggregate strength of rail, water, and truck transportation it is no surprise that these segments of support activities continue to expand their operations.

Figure 3.7.1

Air transportation driving pre-pandemic job growth in transportation support activities
(employment, transportation support activities, '000s)



Sources: The Conference Board of Canada; Statistics Canada, Custom order - Labour Force Survey.

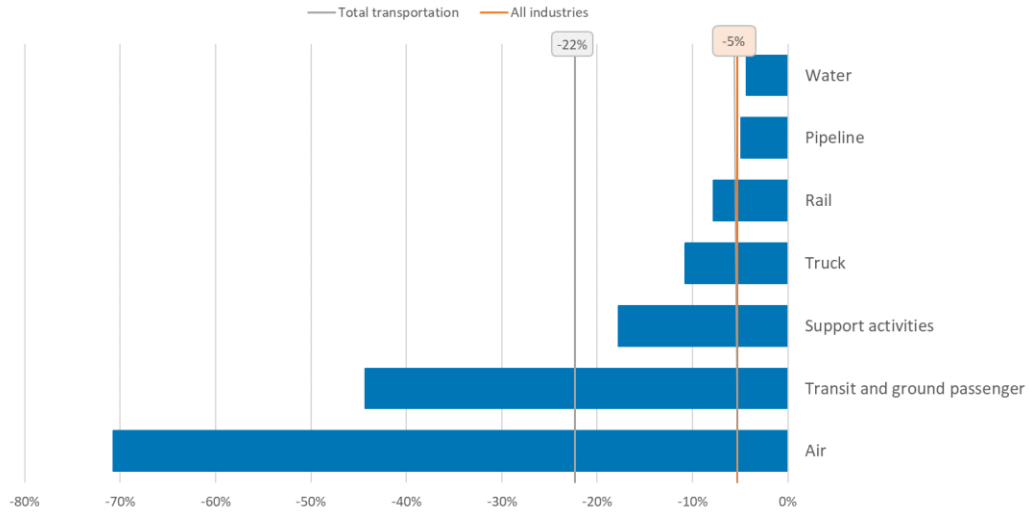
Unfortunately, the COVID-19 pandemic derailed the industry's robust growth trajectory. Support activities for transportation, which provides services to the six transportation industries outlined in previous sections, saw GDP decline by 18 per cent in 2020. (See Figure 3.7.2.) Only air and transit and ground passenger transportation encountered larger declines in output. Support activities for transportation also incurred above-average job losses, with employment falling by 18,300 in 2020, representing over one in seven jobs (13 per cent) in the industry.

[65] Statistics Canada. Table 33-10-0214-01 Canadian Business Counts, with employees, June 2019.

The sizeable economic impacts that materialized in support activities for transportation, reflect the industry's exposure to transportation industries most impacted by COVID-19. Most notably, 40 per cent of jobs lost in the industry in 2020 occurred in services for air transportation, such as airport operations, and aircraft maintenance. Layoffs in these areas came on the heels of an unprecedented collapse in air travel, which led many countries including Canada to mandate lockdowns, close borders, and encourage social distancing.

Figure 3.7.2

Demand for support activities during COVID-19 weighed down by struggling air transportation industry
(percentage change in GDP between 2019 and 2020*)



Sources: The Conference Board of Canada; Statistics Canada. Table 36-10-0434-01.

Outlook

Looking forward, the performance of support activities for transportation is generally expected to mirror the aggregate performance of the different transportation segments that it supports. Over the near-term, demand for support activities will be weighed down by depressed activity in industries that primarily transport passengers, including air and transit and ground passenger transportation. This weakness will partly be offset by the gradual recovery in freight transportation, buoyed by steadily improving merchandise trade.

A full recovery in support activities is not expected until vaccines for COVID-19 have been widely distributed across the world—a process that will take time to complete and will not occur before the second half of 2021. This broad immunization will boost consumer spending in Canada, supporting a pickup in merchandise imports, and increased public passenger travel. These developments will drive a rebound in demand for support activities such that industry GDP returns to pre-COVID levels by 2023.

Employment in support activities is projected to expand to meet growing demand. However, our model does not anticipate a complete recovery over the medium term. After falling to 118,200 in 2020, employment is projected to reach 127,000 by 2024—roughly 5 per cent below 2019 (i.e. pre-COVID levels).

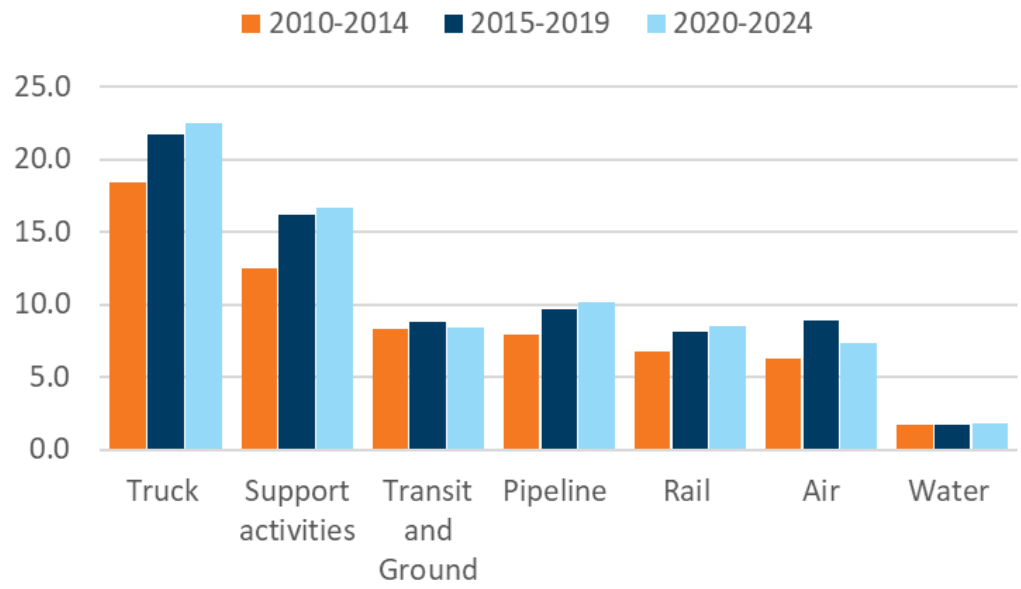
Finally, the financial performance of the industry will also recover in line with rebounding demand. After falling from $38.4 billion in 2019 to $31.6 billion in 2020, we forecast industry revenues will grow to $43.3 billion by 2024. Cost growth will also pick beyond 2020; however, slower employment growth will limit a recovery in labour costs. Against this backdrop, pre-tax profits will increase to $2.6 billion by 2024, from $1.8 billion in 2020.

4.0 Conclusion

Over the period 2009 to 2014, transportation sector growth mirrored the growth of the Canadian economy and was driven by the rebound following the economic recession of 2008-2009. The upswing of consumer and business confidence leading to an increase in passenger and freight traffic was a key factor. The sector grew at a faster pace than the Canadian economy and this growth was led by the growth in air transportation. The decline in oil prices, depreciation of the Canadian dollar and robust export performance all were drivers of transportation services beginning in 2015. Along with air transportation services, almost all other transportation industries also witnessed growth and productivity gains and our previous report outlined a positive outlook for almost all the transportation industry segments going forward.

The overall transportation sector grew at an annual average GDP of 3.9 per cent over the period 2010 to 2014 and at a slightly more moderate pace of 3.5 per cent over the period 2015 to 2019, leading to an overall annual average growth of GDP by 3.7 percentage over the total pre-pandemic period of 2010 to 2019. Multiple indicators highlight the sector's expansion over this decade preceding COVID-19. For example, the transportation sector added 180,000 jobs between 2009 and 2019. Furthermore, the sector also posted a record pre-tax profit of $18.7 billion in 2019, which was well above its ten-year average of $12.9 billion.

Figure 4.1
While GDP will rebound over 2020 to 2024, the pace of growth will vary across industry segments
(GDP, $2012 billions)



Sources: The Conference Board of Canada; Statistics Canada.

The pandemic has changed things, though. The widespread disruptions from March 2020 as a result of the pandemic resulted in an unprecedented shock for Canadian economy and the transportation sector as well. During the second quarter of 2020, the sector saw its GDP contract by 31 per cent. This was almost triple the 11 per cent decline seen across the entire economy. Moreover, the transportation sector shed over 153,000 jobs over the first two quarters of 2020, representing 19 per cent of its employment.

The economic impacts of COVID-19 on the transportation sector were concentrated in subsectors that primarily service passengers. For example, GDP in air, and transit and ground passenger transportation, together “passenger transportation industries”, declined by a combined 79 per cent in the second quarter of 2020. This compared to a 13 per cent decline across industries that mostly transport freight including truck, pipeline, rail, and water transportation, together “freight transportation industries”. In addition, employment in passenger transportation industries declined by 28 per cent compared to 12 per cent across freight transportation industries.

The pandemic has without a doubt, impacted the transportation sector’s current performance and the future outlook significantly. Unlike other recessions, the upswing from this recession is not easily predictable given the uncertainties associated with the nature of the pandemic, the nature of the measures adopted to address it and the effectiveness of both the economic and health measures adopted to address both the economic slowdown and the spread of the virus. Early next year when most countries around the world including Canada would have engaged in widespread vaccine roll-outs would be when there might be an indication of how successful the vaccine would be in preventing the spread of the virus in turn providing a clearer picture of how the global and Canadian economy might fare.

Our previous outlook for the transportation economic growth was an annual average growth of 1.6 percentage between 2019 and 2023. We did caution though that with Brexit, the trade tensions between the U.S. and China and the combination of lagging productivity growth, an ageing population and elevated debt levels would slow down the pace of growth of the overall Canadian economy and in turn the transportation economy as well.

Our current outlook for the sector is an annual average growth of 1.8 percentage over the period 2020-2024. This average annual growth seems higher than what might be intuitively expected because it factors in the rebound growth impact from the severe contraction experienced in 2020. Our model estimates that the transportation sector will see economic activity rebound in 2021. However, it will take until late 2022 for GDP to return to pre-COVID levels, due to drawn out recoveries in air and transit and ground passenger transportation. The recovery in employment will be more fragile as some positions that were permanently laid off during COVID-19 are not rehired. Moreover, the sector continues to face headwinds to employment growth brought about by retiring baby boomers. All in all, employment is forecast to reach 786,000 by 2024, up from 725,900 in 2020.

In turn, the financial performance of the transportation is forecast to improve beyond 2020. Revenues will receive a boost from the recovery in air travel, rising from an estimated $144.6 billion in 2020 to $209.8 billion by 2024. Costs are also projected to rise in the forecast, although softer job growth and lower crude prices will limit gains. Against this backdrop, pre-tax profits are forecast to increase to $18.1 billion by 2024, after sliding to an estimated $4.6 billion in 2020. Margins will level off around 8.6 per cent through 2024—slightly below their pre-COVID levels.

Recovery pace and timelines are expected to vary across transportation segments as can be seen from Figure 4.1 above. Truck and rail transportation industries would reach pre-pandemic levels of growth faster than other segments primarily because they are freight volume dependent. In turn, passenger volume driven sectors might take longer to rebound.

Risks

Our outlook scenarios outlined in the study are subject to inherent risks and uncertainties. The transportation sector's outlook is based on The Conference Board of Canada's long-term economic outlook for the Canadian economy, finalized in October 2020. Given the uncertainties created in global and Canadian markets by the spread of the pandemic information can change rapidly and outlooks can change. Further the outlook for the transportation sector is closely associated with the global outlook and the pace at which other economies emerge from the recession as well. This is particularly true for segments such as air transportation, rail and truck given the extent to which they are inter-related with external economies. There are also sector specific risks to the outlook. For instance, as outlined earlier in the air transportation section, solvency of airline companies, extend of bailouts required and capacity constraints might impact the growth trajectory of the sector. For ground transportation, the effectiveness of the vaccine roll out and the risks associated with some of the short-term measures adopted to deal with the pandemic such as remote working and studying being more permanent are key factors.

Future research considerations

Considering the extent to which COVID-19 has impacted societies and economies across the globe, these impacts, including on Canada's transportation sector, should be researched further. Potential areas to explore in the future include:

- COVID-19 has led to an increased pace of adoption of virtual platforms such as Zoom for business meetings and in turn has led to concerns on whether these trends might continue post-pandemic as well impacting business air travel. There are also concerns on whether the shift towards remote working and studying could be more permanent, in turn impacting passengers, particularly ground

transportation. Given these concerns, it might be worth exploring how the transportation sector could adapt technology to be an enabler rather than a disrupter across the various segments.

- Freight industry is a strongly growing industry and has impacts for both the rail transportation and truck transportation industries. If rail transportation sector were technologically and connectivity wise enabled to replace some of the truck transportation freight, it would be an interesting exercise to understand what the implications might be for freight volume transportation efficiencies, employment and for the environment in terms of emissions as well.
- Ongoing studies on how COVID-19 is impacting each of the seven industries within the transportation sector and how each sector is adapting to these challenges.
- Our medium-term outlook emphasises the increase in fiscal challenges and federal and provincial debt level increases. What might be the medium- to long-term repercussions of government stimulus spending for the transportation sector?
- The growth of e-commerce during the pandemic has been strong. Research indicates these trends would continue in the long run. Given this it would be important to have a deep dive into the impact of e-commerce on freight dependent industries.
- Research indicates that passenger transportation services have been more focused on urban areas. Remote areas and rural areas have lesser transportation services and transportation infrastructure in comparison to rural areas, partly due to scale economies. With COVID-19 bringing in disruptions to the passenger transportation services provided, it would be important to further understand how vulnerable or at-risk communities in the North, as well as rural, remote areas in Canada, and people with disabilities more generally have been impacted.
- COVID-19 has underscored the importance of supply chain resiliency. This might mean that in the medium term to long-term countries including Canada and the U.S. might focus efforts on reshoring supply chains and bringing them geographically closer. It would be worth a study to understand how post-pandemic changing trade patterns and supply chains might impact transportation, particularly freight transportation patterns for Canada.

Glossary

Air transportation – This industry comprises establishments primarily engaged in for-hire, common-carrier transportation of people and/or goods using aircraft, such as airplanes and helicopters.

Costs – Costs are the sum of labour, material and capital costs for each industry, where capital costs include both interest expense and depreciation expense. This data is reported by Statistics Canada as part of its Quarterly Financial Statistics for Enterprises.

Employment – Employment is the total number of full-time and part-time employees in a given industry. The data is reported monthly by Statistics Canada in thousands, and is part of its Labour Force Survey.

GDP – Real Gross Domestic Product refers to the total value that an industry creates. As such, it is a measure of the industry's contribution to economic growth. It is stated in millions of 2012 dollars and is reported by Statistics Canada.

Investment – The investment data used in the report includes all new expenditures by a specific industry on machinery and equipment, as well as non-residential engineering and structures. Investment data is reported annually by Statistics Canada in millions, and is part of its Survey of Fixed Capital Flows and Stocks.

NAICS – The North American Industrial Classification System (NAICS) is used by statistical agencies in Canada, the United States and Mexico to describe economic and business activity at the industry level. It is erected on a production-oriented framework, where establishments that produce similar goods or services are grouped together. Data is generally collected at the establishment level with an establishment being assigned to a specific industry based on its primary activity. A more detailed understanding of the NAICS can be accessed at: http://www.statcan.gc.ca/subjects-sujets/standard-norme/naics-scian/2012/index-indexe-eng.htm

Pipeline transportation – This industry comprises establishments primarily engaged in the transport of goods by pipeline. The pipelines are designed to specifications for the transport of a particular good, such as crude oil, natural gas and refined petroleum products. Pipeline transportation includes integrated systems comprising various types of pipelines and ancillary facilities, such as pumping stations and incidental storage facilities.

Port – A wharf, pier, breakwater, terminal, warehouse, or other buildings or work that is located in, on or adjacent to navigable waters that is used in connection with navigation or shipping.

Prices – This is a composite measure of the output prices for all of an industry's products. The data for this series comes from a variety of surveys published by Statistics Canada, with the exact source varying by industry. All price indexes are standardized in the form of an index where 2012=100.

Profits – Profits are equal to revenues less costs and are stated before taxes or extraordinary items. This data is reported by Statistics Canada as part of its Quarterly Financial Statistics for Enterprises, and is stated in millions of dollars.

Profit margin – The profit margin is the ratio of profits to revenues.

Rail transportation – This industry comprises establishments primarily engaged in operating railways. Establishments primarily engaged in the operation of long-haul or mainline railways, short-haul railways and passenger railways are included.

Revenues – Revenues are the total receipts that an industry accumulates and is a product of both pricing and production. This data is reported by Statistics Canada as part of its Quarterly Financial Statistics for Enterprises, and is stated in millions of dollars.

Scenic and sightseeing activities – This industry comprises establishments primarily engaged in providing recreational transportation, such as sightseeing or dinner cruises, steam train excursions, horse-drawn sightseeing rides, air-boat rides or hot-air balloon rides. These establishments often use vintage or specialized transportation equipment. The services provided are local in nature, usually involving same-day return. Establishments that provide charter fishing services are included.

Support activities for transportation – This industry comprises establishments primarily engaged in providing services to other transportation establishments. These services may be specific to a mode of transportation, or they may be multimodal.

Transit and ground passenger transportation – This industry comprises establishments primarily engaged in a variety of passenger transportation activities, using equipment designed for those purposes. These activities are distinguished based on process factors, such as whether routes are scheduled, run over fixed routes, and charged on a per-seat or per-vehicle basis.

Truck transportation – This industry comprises establishments primarily engaged in the truck transportation of goods. These establishments may carry general freight or specialized freight. Specialized freight comprises goods that, because of size, weight, shape or other inherent characteristics, require specialized equipment for transportation. Establishments may operate locally, that is within a metropolitan area and its hinterland, or over long distances, that is between metropolitan areas.

Wages – The measure used to analyse wages in this report are average weekly earnings including overtime. This is reported by Statistics Canada as part of its Survey of Employment, Payrolls and Hours.

Water transportation – This industry comprises establishments primarily engaged in the water transportation of passengers and goods, using equipment designed for those purposes.

Forecast Tables

Transportation – NAICS 48

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Real gross domestic product (millions, $2012)	47,527	49,896	51,481	51,279	51,019	52,527	55,577	57,308	58,417	57,996	55,290	57,514	60,106	61,743	62,719	67,034	69,880	71,728	76,121	78,554	79,464
	n/a	5.0	3.2	-0.4	-0.5	3.0	5.8	3.1	1.9	-0.7	-4.7	4.0	4.5	2.7	1.6	6.9	4.2	2.6	6.1	3.2	1.2
Industry price index (2012 =100)	75.5	76.6	79.0	81.5	83.1	84.2	87.2	90.0	89.7	93.2	91.3	93.5	97.5	100.0	103.2	104.7	103.8	102.9	104.3	108.3	111.4
	n/a	1.4	3.1	3.1	2.0	1.3	3.6	3.3	-0.3	3.9	-2.1	2.4	4.3	2.6	3.2	1.5	-0.9	-0.8	1.3	3.8	2.9
Employment (000s)	581.4	605.0	604.9	589.0	620.2	623.2	613.4	616.3	637.9	650.8	643.2	637.1	668.4	659.7	691.6	702.7	725.4	722.0	748.7	778.9	824.2
	n/a	4.1	0.0	-2.6	5.3	0.5	-1.6	0.5	3.5	2.0	-1.2	-0.9	4.9	-1.3	4.8	1.6	3.2	-0.5	3.7	4.0	5.8
Investment ($ millions)	16,143	13,572	13,473	13,940	12,884	13,147	14,449	17,371	19,860	21,759	21,265	18,883	20,090	24,770	32,130	35,696	39,520	37,116	37,085	43,538	48,841
	n/a	-15.9	-0.7	3.5	-7.6	2.0	9.9	20.2	14.3	9.6	-2.3	-11.2	6.4	23.3	29.7	11.1	10.7	-6.1	-0.1	17.4	12.2
Revenues ($ millions)	66,982	72,869	75,549	76,701	77,644	88,870	94,996	102,911	106,737	113,089	103,654	111,474	119,301	126,325	133,060	145,744	151,213	152,676	165,536	179,705	187,053
	n/a	8.8	3.7	1.5	1.2	14.5	6.9	8.3	3.7	6.0	-8.3	7.5	7.0	5.9	5.3	9.5	3.8	1.0	8.4	8.6	4.1
Costs ($ millions)	64,951	71,194	74,891	73,813	75,370	84,957	89,276	95,735	99,842	106,534	98,867	104,350	111,531	116,524	122,924	133,182	137,950	138,032	148,582	161,863	168,346
	n/a	9.6	5.2	-1.4	2.1	12.7	5.1	7.2	4.3	6.7	-7.2	5.5	6.9	4.5	5.5	8.3	3.6	0.1	7.6	8.9	4.0
Pre-tax profits ($ millions)	2,030	1,676	657	2,888	2,273	3,913	5,720	7,176	6,895	6,555	4,788	7,124	7,770	9,801	10,137	12,561	13,263	14,643	16,954	17,843	18,706
	n/a	-17.5	-60.8	339.2	-21.3	72.1	46.2	25.5	-3.9	-4.9	-27.0	48.8	9.1	26.1	3.4	23.9	5.6	10.4	15.8	5.2	4.8
Profit margin (per cent)	3.0	2.3	0.9	3.8	2.9	4.4	6.0	7.0	6.5	5.8	4.6	6.4	6.5	7.8	7.6	8.6	8.8	9.6	10.2	9.9	10.0

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Real gross domestic product (millions, $2012)	63,057	69,465	78,423	82,060	83,690	84,940	86,020	86,849	87,785	88,798	89,815	90,818	91,912	93,022	94,167	95,338	96,522	97,731	98,930	100,144	101,381
	-20.6	10.2	12.9	4.6	2.0	1.5	1.3	1.0	1.1	1.2	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.3	1.2	1.2	1.2
Industry price index (2012 =100)	109.8	112.4	115.2	117.2	119.3	121.6	123.8	126.1	128.4	130.8	133.2	135.7	138.2	140.8	143.3	146.0	148.7	151.4	154.2	157.1	160.0
	-1.4	2.3	2.5	1.8	1.8	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9
Employment (000s)	725.9	730.0	766.0	779.8	786.1	791.6	796.1	799.3	802.8	806.8	810.8	814.7	818.9	823.2	827.6	832.1	836.7	841.3	845.9	850.4	855.0
	-11.9	0.6	4.9	1.8	0.8	0.7	0.6	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.5
Investment ($ millions)	49,138	34,812	36,636	40,738	43,560	45,866	48,016	49,970	51,810	53,705	55,674	57,684	59,753	61,927	64,185	66,534	68,988	71,541	74,187	76,914	79,737
	0.6	-29.2	5.2	11.2	6.9	5.3	4.7	4.1	3.7	3.7	3.7	3.6	3.6	3.6	3.6	3.7	3.7	3.7	3.7	3.7	3.7
Revenues ($ millions)	144,595	160,765	187,296	201,429	209,763	216,891	223,691	230,034	236,836	243,977	251,307	258,823	266,814	275,041	283,543	292,332	301,425	310,832	320,445	330,377	340,641
	-22.7	11.2	16.5	7.5	4.1	3.4	3.1	2.8	3.0	3.0	3.0	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
Costs ($ millions)	140,021	155,953	174,781	184,359	191,617	198,060	204,375	210,254	216,486	223,037	229,770	236,662	243,975	251,509	259,290	267,331	275,653	284,251	293,038	302,116	311,487
	-16.8	11.4	12.1	5.5	3.9	3.4	3.2	2.9	3.0	3.0	3.0	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
Pre-tax profits ($ millions)	4,574	4,812	12,515	17,071	18,146	18,832	19,317	19,780	20,350	20,940	21,537	22,161	22,839	23,532	24,253	25,001	25,772	26,581	27,408	28,262	29,154
	-75.5	5.2	160.1	36.4	6.3	3.8	2.6	2.4	2.9	2.9	2.9	2.9	3.1	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.2
Profit margin (per cent)	2.4	3.0	6.6	8.5	8.7	8.7	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6

* Percentage change is not calculated on negative numbers.

Air transportation – NAICS 481

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Real gross domestic product (millions, $2012)	4,271	4,368	4,105	3,715	3,453	3,872	4,324	4,597	4,905	5,192	4,700	5,204	6,036	6,481	6,264	7,239	7,645	8,325	8,991	9,645	9,845
	n/a	2.3	-6.0	-9.5	-7.0	12.1	11.7	6.3	6.7	5.8	-9.5	10.7	16.0	7.4	-3.3	15.6	5.6	8.9	8.0	7.3	2.1
Industry price index (2012 =100)	95.5	94.2	88.0	98.8	96.2	93.6	94.5	97.5	96.2	98.9	91.5	93.6	96.3	100.0	103.5	103.5	101.2	97.9	97.1	98.3	102.8
	n/a	-1.4	-6.5	12.2	-2.6	-2.8	0.9	3.2	-1.3	2.9	-7.5	2.3	2.9	3.9	3.4	-0.1	-2.2	-3.3	-0.8	1.3	4.6
Employment (000s)	71.9	69.2	69.6	65.9	69.4	58.2	60.7	59.8	61.9	61.2	66.8	62.8	63.3	61.2	64.5	59.4	69.1	68.3	75.4	79.1	82.7
	n/a	-3.8	0.6	-5.3	5.4	-16.2	4.3	-1.5	3.6	-1.3	9.2	-6.0	0.9	-3.4	5.5	-8.0	16.4	-1.1	10.4	4.9	4.4
Investment ($ millions)	2,057	1,597	2,026	2,428	1,711	1,496	1,893	1,976	3,947	1,593	1,394	582	658	1,866	2,204	4,113	5,234	5,938	4,846	5,022	5,378
	n/a	-22.4	26.8	19.9	-29.5	-12.6	26.6	4.4	99.7	-59.6	-12.5	-58.2	12.9	183.8	18.1	86.6	27.3	13.4	-18.4	3.6	7.1
Revenues ($ millions)	13,645	14,461	13,301	13,029	12,027	13,263	14,314	15,385	16,519	17,660	15,904	17,682	19,174	20,149	20,835	22,622	22,764	23,335	25,354	28,292	30,138
	n/a	6.0	-8.0	-2.0	-7.7	10.3	7.9	7.5	7.4	6.9	-9.9	11.2	8.4	5.1	3.4	8.6	0.6	2.5	8.7	11.6	6.5
Costs ($ millions)	13,474	14,956	14,197	13,172	12,838	13,625	13,836	14,892	15,930	17,591	16,057	17,276	18,776	19,518	20,221	21,685	21,268	21,578	24,644	27,994	29,187
	n/a	11.0	-5.1	-7.2	-2.5	6.1	1.5	7.6	7.0	10.4	-8.7	7.6	8.7	4.0	3.6	7.2	-1.9	1.5	14.2	13.6	4.3
Pre-tax profits ($ millions)	171	-494	-896	-143	-811	-361	478	493	589	69	-152	406	397	630	614	937	1,496	1,756	710	299	951
	n/a	-389.9	81.3	-84.0	467.2	-55.4	-232.2	3.2	19.5	-88.3	-321.5	-366.5	-2.2	58.7	-2.6	52.7	59.7	17.4	-59.6	-58.0	218.5
Profit margin (per cent)	1.2	-3.3	-6.8	-1.1	-6.8	-2.8	3.3	3.2	3.6	0.3	-1.0	2.1	2.1	3.1	2.9	4.1	6.6	7.5	2.8	1.0	3.1

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Real gross domestic product (millions, $2012)	3,423	3,972	7,851	10,239	11,079	11,316	11,489	11,673	11,869	12,054	12,246	12,445	12,661	12,879	13,105	13,327	13,549	13,776	14,010	14,247	14,482
	-65.2	16.0	97.7	30.4	8.2	2.1	1.5	1.6	1.7	1.6	1.6	1.6	1.7	1.7	1.8	1.7	1.7	1.7	1.7	1.7	1.7
Industry price index (2012 =100)	103.3	99.7	102.3	104.4	105.8	107.2	108.7	110.1	111.5	113.0	114.5	116.0	117.6	119.1	120.7	122.3	123.9	125.6	127.3	128.9	130.6
	0.5	-3.5	2.6	2.0	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Employment (000s)	56.4	54.7	65.4	73.9	77.2	78.6	79.6	80.4	81.2	82.0	82.8	83.6	84.4	85.3	86.2	87.1	88.0	88.9	89.8	90.7	91.6
	-31.8	-3.1	19.7	13.0	4.4	1.8	1.3	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Investment ($ millions)	3,861	2,307	2,450	3,416	4,239	4,752	5,064	5,286	5,474	5,648	5,819	5,993	6,174	6,361	6,555	6,754	6,959	7,168	7,385	7,607	7,835
	-28.2	-40.3	6.2	39.4	24.1	12.1	6.6	4.4	3.6	3.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Revenues ($ millions)	11,011	12,105	24,565	32,643	35,798	37,056	38,120	39,238	40,417	41,590	42,813	44,089	45,450	46,841	48,297	49,774	51,281	52,836	54,443	56,095	57,766
	-63.5	9.9	102.9	32.9	9.7	3.5	2.9	2.9	3.0	2.9	2.9	3.0	3.1	3.1	3.1	3.1	3.0	3.0	3.0	3.0	3.0
Costs ($ millions)	18,757	21,868	28,113	31,972	34,320	35,374	36,374	37,427	38,537	39,660	40,821	42,029	43,313	44,635	46,017	47,425	48,861	50,335	51,861	53,430	55,022
	-35.7	16.6	28.6	13.7	7.3	3.1	2.8	2.9	3.0	2.9	2.9	3.0	3.1	3.1	3.1	3.1	3.0	3.0	3.0	3.0	3.0
Pre-tax profits ($ millions)	-7,746	-9,763	-3,548	670	1,478	1,682	1,746	1,811	1,879	1,930	1,993	2,060	2,137	2,206	2,281	2,350	2,421	2,501	2,582	2,665	2,744
	-914.6	n/a	n/a	n/a	120.5	13.8	3.9	3.7	3.8	2.7	3.2	3.4	3.7	3.2	3.4	3.0	3.0	3.3	3.3	3.2	3.0
Profit margin (per cent)	-294.7	-82.5	-16.4	2.0	4.1	4.5	4.6	4.6	4.7	4.6	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.8	4.8

Percentage change is not calculated on negative numbers.

Rail transportation – NAICS 482

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Real gross domestic product (millions, $2012)	4,868	5,838	5,897	6,031	6,039	6,713	7,180	7,147	6,964	6,386	5,616	6,287	6,237	6,562	7,027	7,612	7,885	7,642	8,130	8,435	8,525
	n/a	19.9	1.0	2.3	0.1	11.2	7.0	-0.5	-2.6	-8.3	-12.0	11.9	-0.8	5.2	7.1	8.3	3.6	-3.1	6.4	3.7	1.1
Industry price index (2012 =100)	83.1	82.7	82.5	84.7	82.7	83.8	87.5	92.7	93.7	99.1	102.0	100.7	103.8	100.0	105.5	111.2	115.9	117.3	118.6	121.9	126.3
	n/a	-0.5	-0.2	2.6	-2.3	1.3	4.4	5.9	1.1	5.8	2.9	-1.2	3.0	-3.4	5.3	5.3	4.3	1.2	1.1	2.7	3.6
Employment (000s)	49.6	44.3	46.0	44.1	44.7	42.1	37.0	40.1	38.1	38.1	35.9	38.3	36.2	39.7	35.0	36.5	33.8	33.9	31.7	34.9	42.2
	n/a	-10.6	3.9	-4.2	1.3	-5.7	-12.2	8.4	-4.8	0.0	-5.8	6.6	-5.5	9.9	-11.8	4.1	-7.4	0.4	-6.4	10.0	21.0
Investment ($ millions)	3,006	2,874	3,066	2,738	2,894	2,789	3,064	3,144	3,084	3,101	3,159	3,461	3,769	4,203	4,615	4,966	5,722	5,418	4,606	4,244	4,687
	n/a	-4.4	6.7	-10.7	5.7	-3.6	9.9	2.6	-1.9	0.6	1.9	9.6	8.9	11.5	9.8	7.6	15.2	-5.3	-15.0	-7.8	10.4
Revenues ($ millions)	7,448	7,868	7,866	7,954	8,005	8,653	9,569	10,144	10,233	10,702	9,062	10,200	11,070	11,881	12,691	13,931	14,038	13,472	14,492	15,451	16,175
	n/a	5.6	0.0	1.1	0.6	8.1	10.6	6.0	0.9	4.6	-15.3	12.6	8.5	7.3	6.8	9.8	0.8	-4.0	7.6	6.6	4.7
Costs ($ millions)	6,914	7,127	7,302	7,295	7,389	7,531	8,148	8,348	8,471	9,001	7,616	7,997	9,226	9,564	10,179	10,753	10,539	9,752	10,135	10,662	11,198
	n/a	3.1	2.5	-0.1	1.3	1.9	8.2	2.4	1.5	6.3	-15.4	5.0	15.4	3.7	6.4	5.6	-2.0	-7.5	3.9	5.2	5.0
Pre-tax profits ($ millions)	534	741	564	659	616	1,122	1,421	1,796	1,762	1,701	1,446	2,203	1,844	2,316	2,512	3,178	3,500	3,720	4,357	4,789	4,977
	n/a	38.7	-23.9	16.9	-6.6	82.3	26.6	26.4	-1.9	-3.5	-15.0	52.3	-16.3	25.6	8.4	26.5	10.1	6.3	17.1	9.9	3.9
Profit margin (per cent)	7.1	9.4	7.2	8.3	7.7	12.9	14.9	17.7	17.2	15.9	16.0	21.6	16.6	19.5	19.8	22.8	24.9	27.6	30.1	31.0	30.7

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Real gross domestic product (millions, $2012)	7,858	8,265	8,721	8,877	8,999	9,159	9,299	9,401	9,519	9,650	9,781	9,910	10,050	10,193	10,341	10,495	10,651	10,811	10,970	11,131	11,297
	-7.8	5.2	5.5	1.8	1.4	1.8	1.5	1.1	1.3	1.4	1.4	1.3	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5
Industry price index (2012 =100)	113.4	117.8	128.7	132.4	135.2	137.9	140.6	143.5	146.4	149.3	152.3	155.4	158.6	161.7	164.9	168.2	171.6	175.0	178.5	182.0	185.6
	-10.2	3.9	9.2	2.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Employment (000s)	39.5	35.9	35.1	35.2	35.3	35.5	35.6	35.7	35.8	35.9	36.0	36.1	36.2	36.3	36.4	36.6	36.7	36.8	36.9	37.1	37.2
	-6.6	-8.9	-2.4	0.4	0.3	0.4	0.4	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Investment ($ millions)	4,617	4,505	4,773	5,124	5,544	5,947	6,281	6,574	6,846	7,113	7,381	7,655	7,937	8,230	8,534	8,850	9,178	9,518	9,872	10,238	10,618
	-1.5	-2.4	6.0	7.3	8.2	7.3	5.6	4.7	4.1	3.9	3.8	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
Revenues ($ millions)	13,404	14,641	16,854	17,659	18,268	18,967	19,642	20,259	20,927	21,645	22,379	23,134	23,934	24,753	25,614	26,518	27,445	28,414	29,405	30,431	31,500
	-17.1	9.2	15.1	4.8	3.4	3.8	3.6	3.1	3.3	3.4	3.4	3.4	3.5	3.4	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Costs ($ millions)	9,594	10,697	12,532	13,366	14,011	14,659	15,273	15,816	16,381	16,974	17,578	18,191	18,836	19,492	20,178	20,897	21,633	22,401	23,184	23,995	24,835
	-14.3	11.5	17.1	6.7	4.8	4.6	4.2	3.6	3.6	3.6	3.6	3.5	3.5	3.5	3.5	3.6	3.5	3.6	3.5	3.5	3.5
Pre-tax profits ($ millions)	3,809	3,943	4,322	4,293	4,257	4,308	4,370	4,443	4,546	4,671	4,801	4,943	5,098	5,261	5,435	5,621	5,812	6,013	6,221	6,436	6,665
	-23.5	3.5	9.6	-0.7	-0.8	1.2	1.4	1.7	2.3	2.7	2.8	3.0	3.1	3.2	3.3	3.4	3.4	3.4	3.5	3.5	3.5
Profit margin (per cent)	28.4	26.9	25.7	24.3	23.3	22.7	22.2	21.9	21.7	21.6	21.5	21.4	21.3	21.3	21.2	21.2	21.2	21.2	21.2	21.2	21.2

Percentage change is not calculated on negative numbers.

Water transportation – NAICS 483

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Real gross domestic product (millions, $2012)	2,074	2,239	2,177	2,218	2,163	2,181	2,311	2,266	2,005	2,027	1,738	1,615	1,677	1,747	1,753	1,744	1,727	1,627	1,777	1,754	1,811
	n/a	8.0	-2.8	1.9	-2.5	0.8	6.0	-2.0	-11.5	1.1	-14.3	-7.1	3.8	4.2	0.3	-0.5	-1.0	-5.8	9.2	-1.3	3.3
Industry price index (2012 =100)	51.8	49.8	55.2	51.6	51.2	51.9	60.2	66.6	78.7	70.2	93.3	97.7	100.8	100.3	94.9	101.1	108.0	104.0	102.5	108.3	113.4
	n/a	-3.8	10.8	-6.6	-0.6	1.3	15.9	10.7	18.3	-10.9	33.0	4.7	3.2	-0.4	-5.4	6.5	6.9	-3.7	-1.4	5.6	4.7
Employment (000s)	13.7	12.6	13.5	11.4	11.7	11.0	11.2	12.4	11.1	10.2	7.3	11.2	11.0	9.9	13.1	13.7	12.3	12.7	12.1	13.7	13.2
	n/a	-7.9	6.8	-15.0	2.1	-5.8	2.0	10.1	-10.4	-7.5	-28.3	53.2	-2.2	-10.2	32.9	4.3	-9.9	3.3	-5.3	13.2	-3.1
Investment ($ millions)	415	375	394	391	354	446	487	661	734	862	443	614	573	813	976	742	1,033	890	821	1,110	798
	n/a	-9.6	5.0	-0.6	-9.6	26.0	9.2	35.8	11.1	17.4	-48.6	38.6	-6.6	41.9	20.0	-24.0	39.1	-13.8	-7.8	35.2	-28.1
Revenues ($ millions)	2,329	2,552	2,662	2,882	3,131	3,235	3,568	3,910	4,250	4,440	4,197	4,559	4,738	4,899	5,061	5,423	5,435	4,888	5,264	5,487	5,935
	n/a	9.6	4.3	8.3	8.6	3.3	10.3	9.6	8.7	4.5	-5.5	8.6	3.9	3.4	3.3	7.2	0.2	-10.1	7.7	4.2	8.2
Costs ($ millions)	2,270	2,485	2,602	2,811	3,062	3,128	3,346	3,634	3,955	4,251	3,825	4,128	4,336	4,500	4,718	5,009	5,005	4,471	4,775	4,962	5,371
	n/a	9.5	4.7	8.0	8.9	2.2	6.9	8.6	8.8	7.5	-10.0	7.9	5.0	3.8	4.8	6.2	-0.1	-10.7	6.8	3.9	8.2
Pre-tax profits ($ millions)	59	67	60	71	69	107	222	276	295	189	372	431	402	399	343	414	430	417	489	525	564
	n/a	12.5	-10.7	19.4	-2.6	53.8	108.2	24.0	7.0	-35.8	96.2	15.9	-6.7	-0.7	-14.1	20.7	3.9	-3.0	17.2	7.4	7.4
Profit margin (per cent)	2.5	2.6	2.3	2.5	2.2	3.3	6.2	7.1	6.9	4.3	8.8	9.5	8.5	8.2	6.8	7.6	7.9	8.5	9.3	9.6	9.5

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Real gross domestic product (millions, $2012)	1,736	1,824	1,845	1,866	1,888	1,911	1,933	1,956	1,979	2,002	2,026	2,051	2,075	2,101	2,125	2,150	2,176	2,201	2,227	2,254	2,280
	-4.1	5.0	1.1	1.2	1.2	1.2	1.2	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.1	1.2	1.2	1.2
Industry price index (2012 =100)	109.9	111.1	113.4	115.3	117.4	119.5	121.6	123.8	126.0	128.2	130.5	132.9	135.3	137.7	140.1	142.6	145.2	147.8	150.5	153.3	156.0
	-3.1	1.1	2.1	1.7	1.8	1.8	1.8	1.8	1.7	1.8	1.8	1.8	1.8	1.8	1.7	1.8	1.8	1.8	1.8	1.8	1.8
Employment (000s)	12.6	12.3	12.3	12.4	12.5	12.6	12.7	12.8	12.9	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	14.0	14.2
	-4.7	-2.6	0.5	0.8	0.8	0.8	0.8	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Investment ($ millions)	675	776	915	978	1,014	1,046	1,079	1,112	1,146	1,181	1,218	1,256	1,295	1,335	1,376	1,419	1,463	1,508	1,555	1,604	1,653
	-15.4	15.1	17.8	6.9	3.6	3.2	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.2	3.1
Revenues ($ millions)	5,514	5,853	6,042	6,220	6,403	6,595	6,795	6,994	7,200	7,415	7,641	7,872	8,112	8,356	8,601	8,858	9,126	9,398	9,684	9,983	10,278
	-7.1	6.1	3.2	2.9	2.9	3.0	3.0	2.9	2.9	3.0	3.1	3.0	3.0	3.0	2.9	3.0	3.0	3.0	3.0	3.1	3.0
Costs ($ millions)	5,081	5,352	5,521	5,686	5,856	6,030	6,211	6,392	6,579	6,774	6,980	7,191	7,410	7,633	7,857	8,092	8,336	8,585	8,846	9,118	9,388
	-5.4	5.3	3.2	3.0	3.0	3.0	3.0	2.9	2.9	3.0	3.0	3.0	3.0	3.0	2.9	3.0	3.0	3.0	3.0	3.1	3.0
Pre-tax profits ($ millions)	433	501	521	534	547	565	584	602	621	641	661	681	702	723	744	766	789	812	838	865	890
	-23.1	15.7	3.9	2.4	2.6	3.3	3.2	3.2	3.1	3.2	3.2	3.1	3.1	3.0	2.8	3.0	3.1	2.9	3.2	3.2	2.9
Profit margin (per cent)	7.8	8.6	8.6	8.6	8.5	8.6	8.6	8.6	8.6	8.6	8.6	8.7	8.7	8.7	8.6	8.6	8.6	8.6	8.7	8.7	8.7

Percentage change is not calculated on negative numbers.

Truck transportation – NAICS 484

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Real gross domestic product (millions, $2012)	12,100	12,974	13,857	14,095	13,968	14,477	15,731	16,165	16,602	16,245	15,748	16,926	17,878	18,397	18,840	19,999	20,030	20,708	22,193	22,746	22,845
	n/a	7.2	6.8	1.7	-0.9	3.6	8.7	2.8	2.7	-2.1	-3.1	7.5	5.6	2.9	2.4	6.2	0.2	3.4	7.2	2.5	0.4
Industry price index (2012 =100)	90.7	89.5	93.8	93.1	95.6	97.1	100.7	105.2	102.2	103.0	96.0	94.4	99.2	100.0	100.7	103.2	99.3	97.7	101.4	111.1	114.4
	n/a	-1.3	4.7	-0.7	2.7	1.6	3.7	4.4	-2.8	0.8	-6.8	-1.7	5.1	0.8	0.7	2.5	-3.7	-1.7	3.8	9.6	2.9
Employment (000s)	239.6	256.8	257.9	254.1	262.1	275.0	273.1	270.7	282.1	288.0	254.0	250.0	275.8	278.3	292.5	294.0	307.2	298.1	292.7	312.9	332.7
	n/a	7.2	0.4	-1.5	3.2	4.9	-0.7	-0.9	4.2	2.1	-11.8	-1.6	10.3	0.9	5.1	0.5	4.5	-3.0	-1.8	6.9	6.3
Investment ($ millions)	2,630	2,332	2,249	2,205	2,351	2,594	2,652	3,362	3,195	2,958	3,259	3,197	3,505	3,470	4,184	4,532	4,334	4,467	3,862	5,038	5,237
	n/a	-11.3	-3.6	-1.9	6.6	10.4	2.2	26.7	-4.9	-7.4	10.2	-1.9	9.6	-1.0	20.6	8.3	-4.4	3.1	-13.5	30.5	4.0
Revenues ($ millions)	23,780	26,625	28,569	28,080	28,672	36,176	38,679	42,809	42,969	44,718	39,505	40,987	43,387	45,527	47,667	53,594	54,850	55,159	61,372	68,926	71,269
	n/a	12.0	7.3	-1.7	2.1	26.2	6.9	10.7	0.4	4.1	-11.7	3.8	5.9	4.9	4.7	12.4	2.3	0.6	11.3	12.3	3.4
Costs ($ millions)	22,878	25,600	27,709	27,050	27,630	34,852	36,843	40,771	41,200	43,082	38,402	39,130	41,037	42,501	44,305	49,485	51,376	51,921	57,450	64,384	66,607
	n/a	11.9	8.2	-2.4	2.1	26.1	5.7	10.7	1.1	4.6	-10.9	1.9	4.9	3.6	4.2	11.7	3.8	1.1	10.6	12.1	3.5
Pre-tax profits ($ millions)	902	1,025	860	1,030	1,042	1,324	1,836	2,038	1,769	1,636	1,103	1,857	2,350	3,026	3,362	4,109	3,474	3,238	3,922	4,542	4,661
	n/a	13.7	-16.1	19.8	1.1	27.1	38.7	11.0	-13.2	-7.5	-32.6	68.5	26.5	28.8	11.1	22.2	-15.4	-6.8	21.1	15.8	2.6
Profit margin (per cent)	3.7	3.9	3.0	3.7	3.6	3.7	4.8	4.8	4.1	3.7	2.8	4.5	5.4	6.6	7.1	7.7	6.3	5.9	6.4	6.6	6.5

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Real gross domestic product (millions, $2012)	20,505	22,126	23,046	23,307	23,524	23,859	24,147	24,345	24,583	24,847	25,115	25,379	25,669	25,965	26,273	26,591	26,911	27,241	27,567	27,896	28,236
	-10.2	7.9	4.2	1.1	0.9	1.4	1.2	0.8	1.0	1.1	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Industry price index (2012 =100)	112.1	113.0	115.3	117.6	120.0	122.4	124.9	127.5	130.1	132.7	135.4	138.1	140.9	143.8	146.7	149.6	152.6	155.7	158.9	162.1	165.4
	-2.1	0.8	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Employment (000s)	317.0	310.2	316.7	317.6	318.1	319.5	320.6	320.9	321.4	322.2	323.0	323.7	324.6	325.6	326.6	327.6	328.6	329.7	330.7	331.8	332.8
	-4.7	-2.1	2.1	0.3	0.2	0.4	0.3	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Investment ($ millions)	4,069	3,995	4,730	5,141	5,415	5,660	5,903	6,138	6,378	6,630	6,893	7,166	7,453	7,755	8,069	8,396	8,738	9,095	9,467	9,853	10,257
	-22.3	-1.8	18.4	8.7	5.3	4.5	4.3	4.0	3.9	4.0	4.0	4.0	4.0	4.1	4.1	4.0	4.1	4.1	4.1	4.1	4.1
Revenues ($ millions)	62,671	68,062	72,327	74,624	76,874	79,544	82,152	84,502	87,076	89,788	92,569	95,440	98,508	101,685	104,944	108,319	111,848	115,509	119,242	123,119	127,169
	-12.1	8.6	6.3	3.2	3.0	3.5	3.3	2.9	3.0	3.1	3.1	3.1	3.2	3.2	3.2	3.2	3.3	3.3	3.2	3.3	3.3
Costs ($ millions)	59,899	63,611	67,393	69,496	71,576	73,993	76,421	78,630	81,007	83,516	86,103	88,772	91,617	94,567	97,594	100,728	104,009	107,412	110,884	114,490	118,249
	-10.1	6.2	5.9	3.1	3.0	3.4	3.3	2.9	3.0	3.1	3.1	3.1	3.2	3.2	3.2	3.2	3.3	3.3	3.2	3.3	3.3
Pre-tax profits ($ millions)	2,772	4,450	4,934	5,128	5,298	5,551	5,731	5,872	6,069	6,271	6,466	6,667	6,891	7,118	7,350	7,591	7,838	8,098	8,358	8,630	8,920
	-40.5	60.5	10.9	3.9	3.3	4.8	3.2	2.5	3.4	3.3	3.1	3.1	3.3	3.3	3.3	3.3	3.3	3.3	3.2	3.3	3.4
Profit margin (per cent)	4.3	6.5	6.8	6.9	6.9	7.0	7.0	6.9	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0

Percentage change is not calculated on negative numbers.

Transit and ground passenger transportation – NAICS 485 + 487

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Real gross domestic product (millions, $2012)	6,463	6,939	6,668	7,081	6,961	7,206	7,441	7,462	7,877	8,431	7,814	8,038	8,208	8,313	8,433	8,524	8,602	8,860	8,722	8,819	8,980
	n/a	7.4	-3.9	6.2	-1.7	3.5	3.3	0.3	5.6	7.0	-7.3	2.9	2.1	1.3	1.4	1.1	0.9	3.0	-1.6	1.1	1.8
Industry price index (2012 =100)	64.0	66.1	68.6	70.4	73.2	75.7	78.5	82.2	84.1	87.7	90.7	95.3	97.6	100.0	102.2	104.8	106.8	108.5	110.1	111.3	113.0
	n/a	3.3	3.8	2.7	3.9	3.4	3.7	4.7	2.3	4.3	3.4	5.1	2.4	2.4	2.2	2.6	1.9	1.6	1.5	1.0	1.6
Employment (000s)	122.8	127.7	132.5	122.3	132.9	145.3	131.1	133.5	145.6	142.9	158.0	158.0	160.2	162.2	164.0	172.3	161.6	176.5	195.0	204.6	203.9
	n/a	4.0	3.7	-7.6	8.6	9.4	-9.8	1.8	9.1	-1.9	10.6	0.0	1.4	1.3	1.1	5.1	-6.2	9.2	10.5	5.0	-0.4
Investment ($ millions)	2,407	2,139	2,099	2,265	2,327	2,481	2,934	3,248	3,797	4,976	5,166	6,292	5,736	6,157	6,603	7,186	8,470	7,405	9,792	12,143	10,867
	n/a	-11.1	-1.9	7.9	2.8	6.6	18.3	10.7	16.9	31.0	3.8	21.8	-8.8	7.3	7.2	8.8	17.9	-12.6	32.2	24.0	-10.5
Revenues ($ millions)	4,891	5,245	5,447	5,861	6,055	6,693	6,939	7,418	7,961	8,722	8,650	9,403	9,685	9,996	10,308	10,693	11,014	11,201	11,045	11,208	11,515
	n/a	7.2	3.9	7.6	3.3	10.5	3.7	6.9	7.3	9.6	-0.8	8.7	3.0	3.2	3.1	3.7	3.0	1.7	-1.4	1.5	2.7
Costs ($ millions)	4,612	4,977	5,275	5,661	5,852	6,317	6,476	6,835	7,247	7,821	8,156	8,621	8,904	9,073	9,353	9,665	9,993	10,113	9,877	9,986	10,269
	n/a	7.9	6.0	7.3	3.4	8.0	2.5	5.5	6.0	7.9	4.3	5.7	3.3	1.9	3.1	3.3	3.4	1.2	-2.3	1.1	2.8
Pre-tax profits ($ millions)	279	268	172	200	203	376	463	583	714	901	494	782	781	923	955	1,027	1,021	1,088	1,169	1,222	1,246
	n/a	-4.0	-35.8	16.5	1.6	84.8	23.4	25.9	22.4	26.2	-45.2	58.4	-0.2	18.3	3.4	7.6	-0.6	6.6	7.4	4.6	2.0
Profit margin (per cent)	5.6	5.1	3.2	3.4	3.3	5.6	6.7	7.9	8.9	10.3	5.7	8.3	8.1	9.2	9.3	9.6	9.3	9.7	10.6	10.9	10.8

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Real gross domestic product (millions, $2012)	5,326	7,393	9,495	9,801	9,906	10,014	10,134	10,202	10,283	10,379	10,474	10,562	10,660	10,759	10,861	10,965	11,075	11,184	11,289	11,394	11,500
	-40.7	38.8	28.4	3.2	1.1	1.1	1.2	0.7	0.8	0.9	0.9	0.8	0.9	0.9	0.9	1.0	1.0	1.0	0.9	0.9	0.9
Industry price index (2012 =100)	116.9	119.1	121.3	124.1	127.2	130.4	133.7	137.0	140.5	144.0	147.6	151.3	155.1	159.0	163.0	167.1	171.3	175.6	180.0	184.6	189.2
	3.5	1.8	1.9	2.3	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Employment (000s)	170.5	184.8	198.4	200.6	201.8	202.9	204.0	204.9	205.9	207.1	208.2	209.3	210.5	211.7	212.9	214.1	215.4	216.7	217.9	219.2	220.4
	-16.4	8.4	7.3	1.1	0.6	0.5	0.6	0.5	0.5	0.6	0.6	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Investment ($ millions)	13,532	11,510	11,592	12,756	13,617	14,285	15,018	15,740	16,451	17,202	17,994	18,814	19,672	20,579	21,534	22,539	23,605	24,730	25,901	27,120	28,390
	24.5	-14.9	0.7	10.0	6.8	4.9	5.1	4.8	4.5	4.6	4.6	4.6	4.6	4.6	4.6	4.7	4.7	4.8	4.7	4.7	4.7
Revenues ($ millions)	6,861	9,672	12,648	13,352	13,835	14,337	14,873	15,349	15,860	16,411	16,977	17,549	18,156	18,785	19,439	20,119	20,831	21,565	22,314	23,088	23,888
	-40.4	41.0	30.8	5.6	3.6	3.6	3.7	3.2	3.3	3.5	3.4	3.4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Costs ($ millions)	6,338	8,873	11,465	12,070	12,489	12,934	13,415	13,848	14,306	14,799	15,309	15,826	16,373	16,940	17,529	18,141	18,783	19,445	20,121	20,819	21,540
	-38.3	40.0	29.2	5.3	3.5	3.6	3.7	3.2	3.3	3.4	3.4	3.4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Pre-tax profits ($ millions)	523	800	1,182	1,282	1,346	1,403	1,457	1,501	1,554	1,612	1,668	1,723	1,783	1,846	1,910	1,977	2,048	2,120	2,194	2,269	2,349
	-58.0	52.8	47.9	8.4	5.0	4.2	3.9	3.0	3.5	3.7	3.4	3.3	3.5	3.5	3.5	3.5	3.6	3.5	3.5	3.4	3.5
Profit margin (per cent)	6.9	8.1	9.3	9.6	9.7	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8

Percentage change is not calculated on negative numbers.

Pipeline transportation – NAICS 486

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Real gross domestic product (millions, $2012)	8,537	8,697	9,629	9,797	10,029	9,544	9,722	10,106	9,580	8,355	8,211	7,557	7,940	7,938	7,774	8,375	9,019	9,102	9,921	10,160	10,268
	n/a	1.9	10.7	1.8	2.4	-4.8	1.9	4.0	-5.2	-12.8	-1.7	-8.0	5.1	0.0	-2.1	7.7	7.7	0.9	9.0	2.4	1.1
Industry price index (2012 =100)	52.0	53.5	55.9	55.9	57.8	60.1	60.9	59.8	62.8	73.2	75.2	87.3	91.8	100.0	104.6	98.4	94.7	93.2	91.6	91.1	93.8
	n/a	3.0	4.5	0.0	3.3	4.0	1.2	-1.8	5.0	16.7	2.7	16.1	5.1	9.2	4.3	-5.9	-3.8	-1.5	-1.8	-0.5	2.9
Employment (000s)	4.2	5.8	3.1	5.8	5.1	4.6	4.5	3.1	6.3	4.3	9.2	6.3	6.4	6.6	7.3	9.9	13.1	11.4	15.6	18.9	13.7
	n/a	37.3	-46.0	84.3	-11.3	-11.1	-0.6	-31.1	102.4	-32.7	115.5	-31.8	1.7	3.1	11.3	34.8	33.1	-13.5	37.3	21.5	-27.8
Investment ($ millions)	3,945	2,318	1,234	1,491	1,058	1,229	1,184	2,301	2,481	5,736	4,950	2,728	3,189	5,558	9,199	9,845	9,747	8,778	8,958	9,284	10,651
	n/a	-41.2	-46.8	20.9	-29.0	16.1	-3.6	94.3	7.8	131.2	-13.7	-44.9	16.9	74.3	65.5	7.0	-1.0	-9.9	2.0	3.6	14.7
Revenues ($ millions)	5,629	6,032	6,695	6,805	6,877	6,824	6,887	7,137	7,318	7,576	7,753	8,266	9,386	10,144	10,903	11,157	11,844	11,985	12,829	13,075	13,604
	n/a	7.2	11.0	1.6	1.1	-0.8	0.9	3.6	2.5	3.5	2.3	6.6	13.5	8.1	7.5	2.3	6.2	1.2	7.0	1.9	4.0
Costs ($ millions)	5,566	5,977	6,773	6,013	6,024	5,790	5,994	5,816	6,162	6,338	6,847	7,402	8,161	8,635	9,511	9,488	9,999	9,613	9,456	9,678	10,277
	n/a	7.4	13.3	-11.2	0.2	-3.9	3.5	-3.0	5.9	2.9	8.0	8.1	10.2	5.8	10.2	-0.2	5.4	-3.9	-1.6	2.4	6.2
Pre-tax profits ($ millions)	63	55	-78	792	853	1,034	893	1,321	1,156	1,238	906	864	1,225	1,510	1,392	1,670	1,845	2,372	3,373	3,396	3,327
	n/a	-12.2	-240.2	n/a	7.7	21.2	-13.7	47.9	-12.4	7.1	-26.9	-4.6	41.9	23.2	-7.8	20.0	10.5	28.5	42.2	0.7	-2.0
Profit margin (per cent)	1.1	1.0	-1.2	11.6	12.4	15.2	13.0	18.5	15.8	16.3	11.7	10.5	13.1	14.9	12.8	15.0	15.6	19.8	26.3	26.0	24.4

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Real gross domestic product (millions, $2012)	9,811	10,086	10,193	10,223	10,261	10,336	10,405	10,435	10,475	10,529	10,580	10,630	10,690	10,753	10,820	10,890	10,964	11,038	11,111	11,185	11,262
	-4.4	2.8	1.1	0.3	0.4	0.7	0.7	0.3	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7
Industry price index (2012 =100)	97.4	99.4	101.4	103.4	105.3	107.1	109.0	110.8	112.6	114.4	116.3	118.1	120.0	122.0	124.0	126.0	128.0	130.0	132.1	134.3	136.4
	3.8	2.1	1.9	2.0	1.8	1.8	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Employment (000s)	11.6	12.5	12.8	12.8	12.8	12.9	12.9	13.0	13.0	13.1	13.1	13.2	13.2	13.3	13.3	13.4	13.4	13.5	13.6	13.6	13.7
	-15.1	7.8	1.8	0.3	0.3	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Investment ($ millions)	10,041	8,667	8,151	8,249	8,401	8,591	8,810	9,041	9,278	9,527	9,785	10,052	10,329	10,617	10,917	11,228	11,552	11,888	12,234	12,592	12,961
	-5.7	-13.7	-5.9	1.2	1.8	2.3	2.5	2.6	2.6	2.7	2.7	2.7	2.8	2.8	2.8	2.9	2.9	2.9	2.9	2.9	2.9
Revenues ($ millions)	13,488	14,167	14,592	14,927	15,255	15,640	16,017	16,333	16,661	17,016	17,375	17,738	18,127	18,528	18,943	19,374	19,819	20,276	20,739	21,214	21,704
	-0.9	5.0	3.0	2.3	2.2	2.5	2.4	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3
Costs ($ millions)	10,481	11,504	12,046	12,411	12,716	13,058	13,376	13,617	13,875	14,168	14,467	14,766	15,095	15,432	15,781	16,144	16,518	16,901	17,285	17,682	18,090
	2.0	9.8	4.7	3.0	2.5	2.7	2.4	1.8	1.9	2.1	2.1	2.1	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Pre-tax profits ($ millions)	3,007	2,662	2,546	2,516	2,539	2,582	2,640	2,716	2,786	2,848	2,909	2,972	3,032	3,096	3,162	3,230	3,301	3,375	3,453	3,532	3,613
	-9.6	-11.5	-4.4	-1.2	0.9	1.7	2.2	2.9	2.6	2.2	2.1	2.2	2.0	2.1	2.1	2.2	2.2	2.2	2.3	2.3	2.3
Profit margin (per cent)	22.3	18.8	17.5	16.9	16.6	16.5	16.5	16.6	16.7	16.7	16.7	16.8	16.7	16.7	16.7	16.7	16.7	16.6	16.7	16.6	16.6

Percentage change is not calculated on negative numbers.

Support activities – NAICS 488

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Real gross domestic product (millions, $2012)	9,216	8,841	9,149	8,341	8,407	8,535	8,869	9,566	10,485	11,361	11,463	11,888	12,130	12,306	12,628	13,541	14,972	15,465	16,387	16,995	17,189
	n/a	-4.1	3.5	-8.8	0.8	1.5	3.9	7.9	9.6	8.4	0.9	3.7	2.0	1.5	2.6	7.2	10.6	3.3	6.0	3.7	1.1
Industry price index (2012 =100)	77.6	82.7	87.8	99.2	103.9	100.5	102.6	102.7	95.5	96.3	91.1	90.4	95.5	100.0	106.4	108.5	107.9	107.8	109.7	112.0	114.2
	n/a	6.5	6.2	13.0	4.7	-3.3	2.1	0.1	-7.0	0.9	-5.4	-0.7	5.6	4.6	6.6	1.9	-0.6	0.0	1.7	2.1	1.9
Employment (000s)	79.6	88.6	82.3	85.3	94.2	87.0	95.8	96.7	92.7	106.1	111.9	110.6	115.6	101.9	115.1	117.1	128.3	121.1	126.2	114.6	135.8
	n/a	11.3	-7.1	3.7	10.4	-7.6	10.1	1.0	-4.1	14.4	5.5	-1.2	4.5	-11.8	13.0	1.7	9.6	-5.6	4.2	-9.2	18.5
Investment ($ millions)	1,684	1,937	2,406	2,421	2,189	2,113	2,234	2,680	2,622	2,532	2,895	2,009	2,660	2,702	4,351	4,311	4,980	4,219	4,201	6,698	11,223
	n/a	15.0	24.2	0.6	-9.6	-3.5	5.7	19.9	-2.1	-3.4	14.3	-30.6	32.4	1.6	61.0	-0.9	15.5	-15.3	-0.4	59.4	67.6
Revenues ($ millions)	9,260	10,086	11,009	12,090	12,877	14,026	15,040	16,108	17,487	19,271	18,583	20,377	21,861	23,729	25,596	28,323	31,267	32,636	35,180	37,267	38,417
	n/a	8.9	9.2	9.8	6.5	8.9	7.2	7.1	8.6	10.2	-3.6	9.7	7.3	8.5	7.9	10.7	10.4	4.4	7.8	5.9	3.1
Costs ($ millions)	9,238	10,072	11,033	11,813	12,576	13,714	14,634	15,439	16,879	18,451	17,962	19,797	21,090	22,732	24,636	27,098	29,771	30,585	32,245	34,196	35,436
	n/a	9.0	9.5	7.1	6.5	9.0	6.7	5.5	9.3	9.3	-2.6	10.2	6.5	7.8	8.4	10.0	9.9	2.7	5.4	6.1	3.6
Pre-tax profits ($ millions)	22	14	-24	277	301	312	406	669	608	820	621	580	771	996	960	1,226	1,496	2,051	2,935	3,070	2,980
	n/a	-36.0	-272.3	n/a	8.7	3.7	30.3	64.6	-9.1	34.9	-24.4	-6.5	32.7	29.3	-3.6	27.7	22.0	37.1	43.1	4.6	-2.9
Profit margin (per cent)	0.2	0.2	-0.2	2.3	2.4	2.2	2.7	4.2	3.5	4.3	3.3	2.9	3.5	4.2	3.7	4.3	4.8	6.3	8.3	8.2	7.8

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Real gross domestic product (millions, $2012)	14,397	15,800	17,273	17,747	18,033	18,346	18,612	18,836	19,077	19,337	19,593	19,841	20,106	20,372	20,643	20,919	21,197	21,479	21,757	22,037	22,323
	-16.2	9.7	9.3	2.7	1.6	1.7	1.5	1.2	1.3	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Industry price index (2012 =100)	112.2	117.3	119.1	120.9	122.8	124.6	126.5	128.5	130.4	132.4	134.4	136.5	138.6	140.7	142.8	145.0	147.2	149.5	151.7	154.0	156.4
	-1.8	4.5	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Employment (000s)	118.3	119.5	125.4	127.2	128.4	129.6	130.7	131.6	132.5	133.6	134.6	135.6	136.6	137.7	138.7	139.8	140.8	141.9	143.0	144.0	145.1
	-12.9	1.1	4.9	1.5	0.9	1.0	0.8	0.7	0.7	0.8	0.8	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7
Investment ($ millions)	12,344	3,052	4,024	5,075	5,329	5,585	5,862	6,079	6,237	6,404	6,583	6,749	6,894	7,050	7,201	7,348	7,494	7,634	7,774	7,901	8,023
	10.0	-75.3	31.8	26.1	5.0	4.8	4.9	3.7	2.6	2.7	2.8	2.5	2.2	2.3	2.1	2.0	2.0	1.9	1.8	1.6	1.5
Revenues ($ millions)	31,646	36,266	40,269	42,004	43,331	44,752	46,092	47,358	48,695	50,112	51,552	53,001	54,527	56,093	57,706	59,369	61,075	62,834	64,618	66,447	68,336
	-17.6	14.6	11.0	4.3	3.2	3.3	3.0	2.7	2.8	2.9	2.9	2.8	2.9	2.9	2.9	2.9	2.9	2.9	2.8	2.8	2.8
Costs ($ millions)	29,871	34,048	37,712	39,357	40,649	42,011	43,304	44,525	45,801	47,145	48,512	49,887	51,330	52,810	54,334	55,904	57,513	59,172	60,856	62,582	64,362
	-15.7	14.0	10.8	4.4	3.3	3.3	3.1	2.8	2.9	2.9	2.9	2.8	2.9	2.9	2.9	2.9	2.9	2.9	2.8	2.8	2.8
Pre-tax profits ($ millions)	1,774	2,218	2,557	2,647	2,682	2,741	2,789	2,833	2,894	2,967	3,040	3,114	3,196	3,282	3,372	3,466	3,562	3,662	3,762	3,865	3,974
	-40.5	25.0	15.3	3.5	1.3	2.2	1.7	1.6	2.2	2.5	2.5	2.4	2.7	2.7	2.7	2.8	2.8	2.8	2.7	2.7	2.8
Profit margin (per cent)	5.5	6.1	6.3	6.3	6.2	6.1	6.1	6.0	5.9	5.9	5.9	5.9	5.9	5.9	5.8	5.8	5.8	5.8	5.8	5.8	5.8

Percentage change is not calculated on negative numbers.

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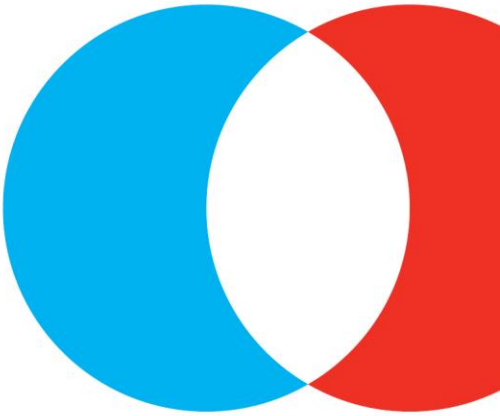

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