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Finding Our Balance.

How Changes in Oil Prices Impact Canada's Economy



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Finding Our Balance: How Changes in Oil Prices Impact Canada's Economy

Todd Crawford, Michael Burt, and Carlos Murillo

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EXECUTIVE SUMMARY

Finding Our Balance: How Changes in Oil Prices Impact Canada's Economy

At a Glance

- This study considers three different oil price scenarios over the next ten years in order to better understand how future oil price movements can impact Canada's economic and fiscal performance.
- Higher oil prices are a net positive for Canada's economy as the benefits from increased oil-related investment outweigh any negative impact on non-oil exports. The opposite is true when oil prices are low.
- Saskatchewan, Newfoundland and Labrador, and Alberta in particular, all benefit from high oil prices. The rest of the provinces generally experience small net negative impacts when oil prices rise.
- Oil prices impact Canada's industry in different ways. Sectors like oil producers, oilfield services, construction, financial services, and engineering benefit in a high oil price environment. When oil prices are low, manufacturing, wholesale trade, and transportation sectors are all better off.

The development, production, movement, and processing of Canada's crude oil resources is a major contributor to Canada's economy. Together, these activities support hundreds of thousands of jobs and generate billions of dollars of government revenues. As such, movements in oil prices have significant implications for Canada's economy. These include their direct impacts on oil-related production and investment, the supply chain effects associated with these activities, their influence on the value of the Canadian dollar and international trade, and their effect on consumer prices and income.

Because the Canadian economy is not uniform in its structure across provinces, these various effects impact the provinces in different ways. The objective of this study is to understand how future oil price movements can impact Canada's economic and fiscal performance. In order to do this we consider three different oil price scenarios—The Conference Board of Canada's "reference" or most likely scenario, a "high price" scenario, and a "low price" scenario over the period 2016 to 2025.

Implications for Canada

In the high-price scenario, a surge in oil-related investment increases the productive capacity of the Canadian economy. Although a stronger dollar does reduce non-oil exports, the benefits of the increased oil-related investment lead to employment and GDP levels being consistently higher over the forecast period. Employment is, on average, 65,000 positions higher over the forecast period, and GDP is 1.4 per cent higher in 2025

than in the reference case. (See Table 1.) Annual combined federal and provincial government revenues are also \$16.1 billion higher on average between 2016 and 2025.

Table 1

Summary of Economic Indicators Across Scenarios

(annual average, 2016–25)

	Reference	Low	High
WTI price (US\$)	64.7	40.0	80.1
Real oil and gas investment (2007 \$ billions)	40.6	24.1	58.5
GDP growth (per cent)	2.1	2.0	2.2
Employment (000s)	18,930	18,904	18,995
C\$/US\$	0.82	0.74	0.88
Federal government revenues (\$ billions)	344.1	337.2	350.8
Provincial government revenues (\$ billions)	496.9	487.6	506.2

Source: The Conference Board of Canada.

In the low-price scenario, we see the opposite situation. The large decline in oil-related investment leads to four consecutive years of recession in Alberta. The resulting negative impact on business confidence and Alberta's supply chain links with the rest of the country leads to several years of weak economic growth for Canada as a whole. Growth in non-oil-related sectors does eventually allow employment to recover from the effects of this shock, but GDP and incomes are still lower at the end of the forecast period and significant economic potential is lost. As well, government revenues are reduced by \$16.1 billion a year on average over the forecast period.

Implications for Sectors

There are clear beneficiaries among the major sectors in Canada in terms of who would be positively impacted by higher oil prices. The two largest beneficiaries in the high-price scenario are the oil sector

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itself, as well as the oilfield services industry. The construction sector also experiences large benefits, as oil investment involves considerable construction activity.

Other sectors where the benefits of higher oil prices are less pronounced but still positive include financial services, professional services, and retail trade. Given the capital-intensive nature of oil investments, there are significant impacts associated with arranging the financing necessary to support the sector's investment activity. Engineering is the main beneficiary within the professional services sector, but other activities—such as geophysical surveying and mapping, and computer services—also benefit. Finally, the retail sector benefits from the resulting stronger growth in incomes.

Of course, not all sectors benefit from higher oil prices. Manufacturing experiences a significant decline in GDP and employment in the high-price scenario, relative to the reference case. This is due primarily to the negative impact that a stronger dollar has on the sector's exports. The other two major sectors that, on net, are negatively affected by higher oil prices are transportation and wholesale trade. Both of these have strong links to the manufacturing sector and, as such, are affected by the reduction in manufacturing activity.

Implications for Provinces

The provincial results across the different scenarios are what we would expect. The major oil-producing provinces (Alberta, Saskatchewan, and Newfoundland and Labrador) all experience stronger economic growth when oil prices are higher. (See Table 2.) They also experience sizable fiscal impacts, as they benefit from both increased tax revenues and royalty payments. The rest of the provinces experience small but net negative impacts on GDP, employment, and revenues when oil prices rise.

Table 2

Summary of Economic Indicators by Province

(average difference from the reference scenario, 2016–25)

	Low Scenario			High Scenario		
	GDP growth (per cent)	Employment (000s)	Revenues (\$ millions)	GDP growth (per cent)	Employment (000s)	Revenues (\$ millions)
British Columbia	0.07	12.7	191	0.00	-9.3	-160
Alberta	-0.76	-126.4	-9,702	0.74	128.9	9,455
Saskatchewan	-0.06	-7.2	-825	0.16	3.2	649
Manitoba	0.10	5.6	122	-0.01	-3.0	-15
Ontario	0.11	55.0	933	-0.01	-30.5	-724
Quebec	0.13	32.8	527	-0.04	-20.9	-316
New Brunswick	0.12	2.2	111	-0.01	-1.6	-22
Newfoundland and Labrador	-0.29	-3.9	-789	0.21	0.6	478
Prince Edward Island	0.11	0.5	25	-0.01	-0.4	-4
Nova Scotia	0.09	2.8	94	-0.01	-1.7	-29
Total provinces	-0.07	-26.0	-9,314	0.14	65.4	9,312

Source: The Conference Board of Canada.

The size of the impacts in the different scenarios is particularly notable in Alberta. In general, the employment, GDP, and fiscal impacts of oil price movements in Alberta are considerably larger than for the rest of the provinces combined. For example, in the high-price scenario, employment in Alberta in 2025 is 7.3 per cent above what it would be in the reference scenario. The impacts in Saskatchewan (2 per cent) and Newfoundland and Labrador (1 per cent) are positive, but much smaller. For the rest of the provinces, employment is only about 0.6 per cent lower.

Summary

Whatever the future path of oil prices, Canada's economy will continue to adapt to global market conditions. This will bring success to some institutions, businesses, and individuals, while it will challenge others.

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The challenge for governments in this environment is how to find the right balance between the many stakeholders, leveraging the benefits accrued to some while mitigating the costs to others, all while maintaining Canada's economic health and diversity.

CHAPTER 1

Introduction

Chapter Summary

- The development, production, movement, and processing of Canada's crude oil resources support hundreds of thousands of jobs and generate billions of dollars in government revenues.
- Changes in oil prices impact Canada's economy in different ways, including the level of investment in oil development, trade performance, and consumer prices and incomes.
- Because the Canadian economy is not uniform across the country, these effects impact the provinces in different ways. The benefits of higher prices are concentrated in the oil-producing provinces, while the negative impacts are spread more widely across the country.

The development, production, movement, and processing of Canada's crude oil resources is a major contributor to Canada's economy. Together, these activities support hundreds of thousands of jobs and generate billions of dollars of government revenues. Crude oil is also Canada's single largest export product.¹ In this environment, it is not surprising that the rapid decline in global oil prices that started in the fall of 2014 has had significant implications for Canada's economy. The oil extraction industry and all the activities associated with it have gone from a significant growth driver for Canada to the major cause of economic weakness in the country. Lower oil prices have also had a major impact on revenue for the federal government and the governments of the key oil-producing provinces.

Beyond their immediate impact on oil-related production and investment, movements in oil prices have other wide-ranging effects on the Canadian economy. For example, falling commodity prices in general and oil prices in particular have had a significant impact on the value of the Canadian dollar in recent years. As well, oil price movements affect economic growth among many of Canada's major trade partners. As a result, oil prices can have an impact on Canada's trade performance by altering the price competitiveness of imports and exports (i.e., Canada's terms of trade) and changing demand for Canada's non-oil exports.

Oil prices also have significant direct and secondary effects on consumers in Canada. For example, high oil prices and the strong investment they supported contributed to healthy income gains that

1 Innovation, Science, and Economic Development Canada, *Trade Data Online*.

limited the rise of income inequality in Canada since 2000.² However, high oil prices also contributed to higher prices for a variety of oil-intensive products. Most notably, Canadian gasoline prices reached a record high in June 2014 when the Brent price for oil was near its post-recession high of US\$112 per barrel.³

Because the Canadian economy is not uniform in its structure across provinces, these various effects impact the provinces in different ways. The benefits of higher prices are most apparent in the oil-producing provinces, while the negative impacts are spread more widely across the country. As such, any large movements in oil prices, up or down, tend to create disparities in the economic performance of different provinces.

It is in this environment that The Conference Board of Canada has undertaken this study. Our objective is to understand how future oil price movements can impact Canada's economic and fiscal performance. In order to do this, we consider how three different oil price scenarios will influence a variety of economic indicators, including GDP growth, job creation, and government revenues. The rest of this report describes these scenarios and considers how the economic performance of Canada and its provinces varies across the different scenarios.

2 Alexander and Fong, *The Case for Learning*.

3 See Statistics Canada, CANSIM table 326-0020.

CHAPTER 2

Three Potential Paths for Oil Prices

Chapter Summary

- Technological change, political risk, the production decisions of major oil producing countries, and unexpected shifts in demand are all factors that could lead to major changes in the forecast for oil prices.
- In our reference scenario, crude prices begin to rebound in 2016 and gradually improve over the next ten years. Oil related investment does contract for a second consecutive year in 2016, but eventually surpasses its previous peak by 2025.
- In the low oil price scenario, oil prices drop even lower and remain consistently below the reference scenario. As a result, oil related investment falls steeply and only returns to its 2016 level by the end of the forecast period.
- In the high oil price scenario, oil prices recover more quickly and remain persistently higher. This drives large increases in investment and oil production in Canada accelerates, reaching 5.9 million barrels per day.

There are many factors that could influence future global price levels for oil. Technological change, political risk, the production decisions of major oil-producing countries, and unexpected shifts in demand are all potential factors that could lead prices to diverge from the current consensus on where long-term prices will be. For example, as recently as two years ago, oil prices were expected to rise to more than US\$150 per barrel by 2025.¹ Today, they aren't expected to reach that level until 2030.² Large increases in U.S. shale oil production over several years (a technological change); an unexpected change in OPEC's production strategy, led by Saudi Arabia; the recent lifting of sanctions on Iran; and slower-than-expected demand growth were the key factors that led to this decline.

In addition to the factors influencing international oil markets, Canadian producers face additional issues that are specific to them. For example, the spread between prices for light and heavy oil will be important, given the preponderance of heavy oil in Canada's oil production mix. Price differentials between Canadian oil-price benchmarks and their global peers will also be significant, with a key factor determining these spreads being the availability of sufficient transportation infrastructure to move the products to market. Finally, since much of Canadian oil production is sold in U.S. dollars but much of the industry's costs are incurred in Canadian dollars, the exchange rate is a key factor in the outlook.

1 International Energy Agency, *World Energy Outlook 2013*.

2 International Energy Agency, *World Energy Outlook 2015*.

In the reference scenario, crude oil prices begin to rebound in 2016 and gradually improve over the next 10 years.

Unexpected changes in both the international and domestic oil markets could lead to oil prices diverging significantly from the current consensus. As such, the three scenarios considered here look at a range of different oil price situations over the period 2016 to 2025. The rest of this chapter provides a brief description of the assumptions in each of these scenarios. Appendix B describes our modelling methodology. Appendix C provides detailed data tables that describe various economic indicators across the three scenarios.

“Reference” Scenario

This scenario is consistent with the Conference Board's prevailing view of the global economy where crude prices begin to rebound from their current low levels in 2016 and gradually improve over the next 10 years.³ (See Chart 1.) In this scenario, global oil consumption increases steadily over time, but demand growth is expected to be slightly below historic norms. It is characterized by steady but weaker economic growth in emerging markets. Lower global oil demand growth is in turn met with an overall slowdown in production increases over the medium term, which will allow the current high levels of oil stocks to be drawn down. This ultimately drives prices to return to levels that eventually make new projects economic.

Moreover, the reference scenario maintains the status quo in geopolitical relationships and anticipates no limitations on global oil supply beyond those that are currently in effect around the world. For example, the scenario explicitly assumes OPEC members will continue to produce in a manner that is consistent with maximizing their market share. This scenario also assumes a gradual implementation of new climate change legislation globally, consistent with the International Energy Agency's New Policies Scenario.⁴ This allows current oil producers, particularly shale oil producers in the United States, to adjust production rapidly to the price environment going forward.

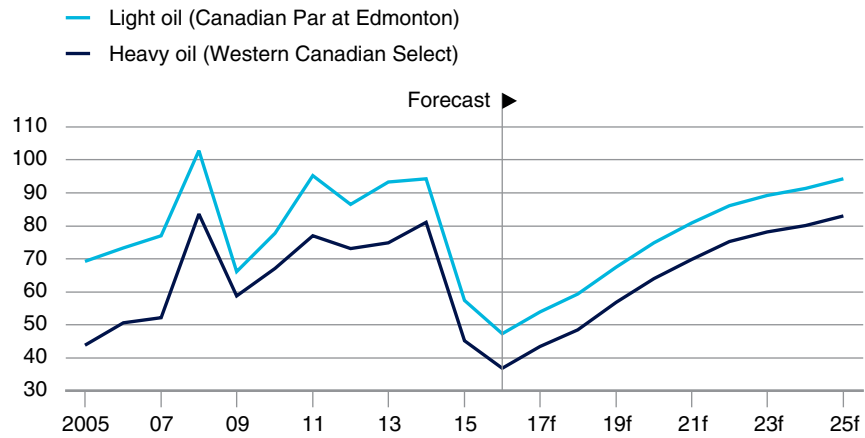
3 The Conference Board of Canada, *Canadian Outlook Economic Forecast: Winter 2016*.

4 International Energy Agency, *World Energy Outlook 2015*.

Chart 1

Canadian Oil Prices Are Expected to Recover Gradually

(C\$ per barrel)



f = forecast

Sources: The Conference Board of Canada; Sproule.

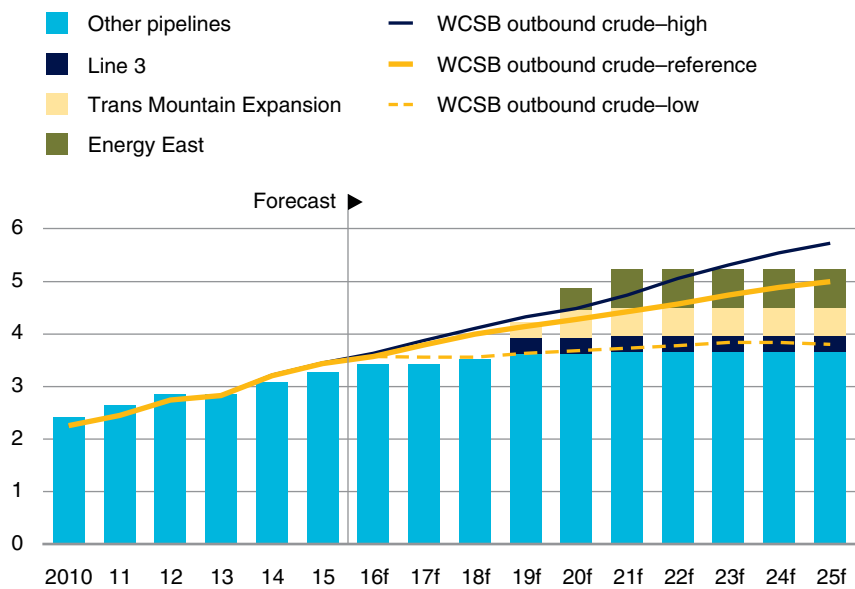
In this environment, Canadian investment in the oil and gas sector is expected to drop by 15 per cent in 2016, marking its second consecutive year of double-digit decline. On a price-adjusted basis, investment in the sector will fall to a level on par with where it stood in 2010. However, with prices beginning to improve next year, investment in the sector will stabilize and then gradually begin to recover thereafter. By 2025, oil prices will be sufficiently high that, on a price-adjusted basis, investment is expected to surpass its 2014 peak.

The growth profile for Canadian oil production has slowed considerably as a result of the reduced pace of investment in the sector. However, production increases are still expected throughout the forecast period. With a significant number of oil sands projects still scheduled for completion, Canadian oil production is expected to rise by an average of 4 per cent per year between now and 2020. Production growth will slow in the outlying years of the forecast, but total Canadian production is expected to rise to 5.3 million barrels per day (mmbd) by 2025, compared with 3.9 mmbd in 2015.

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A key part of this scenario is the assumption that sufficient pipeline capacity will be available to move the available supply of oil to market. Given the expected increase in production, the Trans Mountain Expansion Project, Energy East, and Enbridge Line 3 are expected to proceed, with all three projects being fully operational by 2021. (See Chart 2.) The investments associated with these projects are incorporated into the economic impacts discussed in the report. However, some movement of oil by rail will be required until the first of these pipelines is completed.

Chart 2
Additional Pipeline Capacity Will Be Needed in All Three Scenarios
(millions of barrels per day)



f = forecast
Source: The Conference Board of Canada.

If sufficient pipeline capacity is not developed, the industry will continue to be constrained by transportation issues, and the excess supply would need to be moved by rail. Since it generally costs more to move

Lower oil prices could result from weaker growth in emerging markets, technological change, or supply-side factors that drive global production above current projections.

oil by rail, this would mean lower netbacks to producers. In turn, lower netbacks would reduce the industry's profitability and lead to a slower pace of investment and production growth. As well, lower netbacks would reduce federal government revenues and the revenues of oil-producing provinces in Western Canada. As such, access to adequate pipeline transportation capacity is a risk in each of the three scenarios, but particularly in the high-price scenario.

This scenario also includes one large liquefied natural gas (LNG) terminal and associated pipeline infrastructure on the West Coast being developed over the forecast period that would eventually export the equivalent of 2.5 billion cubic feet per day. Development of the first stage of the project would be completed by 2022. The two most likely projects are the Pacific NorthWest LNG project and the LNG Canada project. No LNG terminals on the East Coast are expected to be completed before the end of the forecast horizon.

“Low Price” Scenario

While not expected, there are several situations that could drive an outcome where the recovery in oil prices takes longer than in the reference scenario. For example, many emerging market economies currently face structural imbalances that have the potential to curtail growth over the medium term, and emerging markets will account for most of the increase in global oil consumption in the future. Thus, weaker emerging market growth would cause oil prices to increase more slowly over time, relative to the reference scenario.

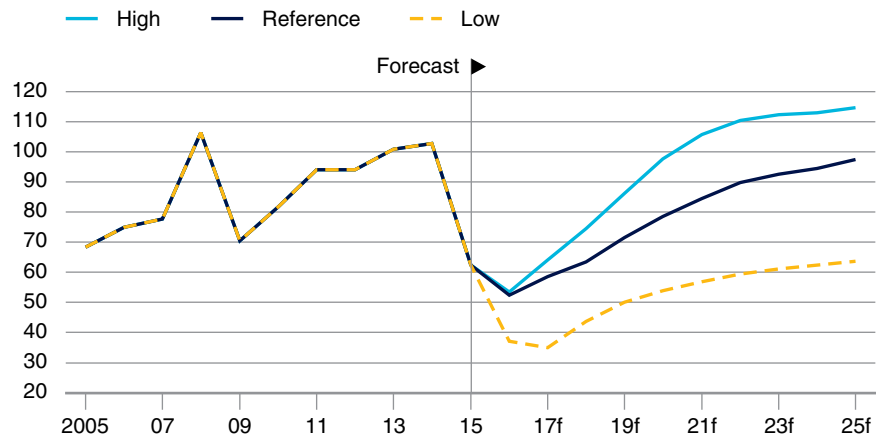
Low oil prices could also result from supply-side factors, such as Iran and Iraq being able to bring greater volumes to the global market due to improvements in governance and diplomatic relations in the near term. A second wave of technological innovation, similar to what we saw with the relatively recent deployment of horizontal drilling and hydraulic fracturing techniques that unlocked vast reserves worldwide (particularly

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in the U.S.), or the deployment of these techniques to other countries with large shale deposits (such as Argentina, Russia, or China), could also keep oil prices lower for an extended period.

In this scenario, the Canadian dollar price for WTI is expected to fall further in 2016, and bottom out at \$35 per barrel in 2017. Prices will gradually recover in 2018 and beyond, but they will remain consistently below the reference case over the entire forecast period. (See Chart 3.)

Chart 3
Oil Prices Remain Persistently Weak in the Low-Price Scenario
(WTI price, C\$ per barrel)



f = forecast
Sources: The Conference Board of Canada; U.S. Energy Information Administration.

The near-term prices in this scenario are sufficiently low that almost no new projects or basins in Canada would be economic. As a result, investment is curtailed by much more than what we see in the reference case, with most of the remaining investment in the near term being tied to sustaining existing projects rather than expanding production. Price-adjusted investment in the oil and gas sector falls by nearly 50 per cent between 2015 and 2019, bottoming out at a level consistent with what was experienced in 2009, before beginning to recover in the outlying

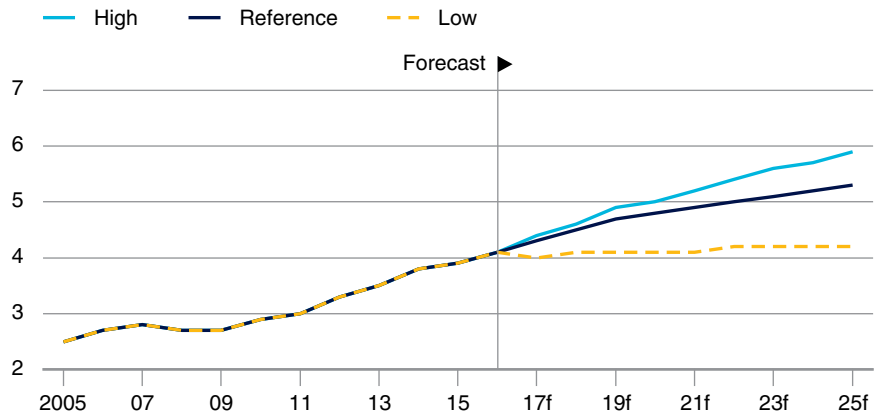
years of the forecast. However, the recovery is weak. By 2025, real investment is expected to reach a level only on par with what we expect in 2016.

With investment so weak in this scenario, any increases in Canadian production would be limited to long-lead-time and capital-intensive projects, such as offshore and oil sands projects that are currently under construction. Canadian conventional crude oil production would be expected to shrink significantly in this scenario, falling by 450,000 barrels per day (b/d) between 2015 and 2020, before beginning to recover in the outlying years of the forecast. This decline in conventional production would offset much of the 689,000 b/d increase in oil sands production over the same period, and oil sands production would not be expected to rise beyond 2020. As a result, total oil production in Canada is expected to be little changed over the forecast period, rising to only 4.2 million barrels per day (mmbd) by 2025. (See Chart 4.)

Chart 4

Canadian Oil Production Experiences Almost No Growth in the Low-Price Scenario

(production excluding natural gas liquids, millions of barrels per day)



f = forecast

Sources: The Conference Board of Canada; Statistics Canada.

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With limited gains in oil production, only the Enbridge Line 3 pipeline is expected to proceed in the low-oil price scenario.

With limited gains in oil production, the need for additional pipeline capacity will be greatly reduced. As a result, only the Enbridge Line 3 project would proceed in this scenario. Completion of the Trans Mountain Expansion Project and Energy East are moved out beyond the forecast horizon, which, combined, would eliminate more than \$20 billion in investment over several years. This has additional negative impacts on the Canadian economy that are captured in this scenario. Movements of oil by rail are also reduced in this scenario; they average about 150,000 barrels per day (b/d) until the Enbridge Line 3 project is complete.

As well, in the low-price scenario only one LNG project is still assumed to proceed. The dramatic reduction in oil and gas investment would free up resources and likely reduce the cost of additional LNG projects. However, we expect that the low oil-price environment would reduce the attractiveness of additional LNG projects being developed, since the pricing contracts for delivery of LNG in Asia are usually at least partially indexed to global oil prices. Thus, low oil prices would make it less likely that LNG projects in Canada could earn a sufficient return on their investment.

Although this scenario makes LNG projects less desirable, Pacific NorthWest LNG and LNG Canada both have LNG buyers included as part of their projects. This is particularly true for Pacific NorthWest LNG, which is financed directly and indirectly by a consortium of importers of LNG into Asia, led by Petronas. As such, securing a source of supply is a key motivation for the project. As well, because of the very large capital expenditures associated with developing an LNG project, the developers must have a long-term view on the project's viability, which can make short-term fluctuations in market conditions less important. This is why we expect the project would still proceed in the low-price scenario.

“High Price” Scenario

As with the low-price scenario, higher crude prices could result from both supply- and demand-side factors. For example, the recent drop in global oil-related investment may result in an overly large reduction in supply growth. And renewed conflict or an increase in geopolitical tensions, particularly in the Middle East, could threaten a significant share of global production and also boost prices.

In the high-price scenario, global oil prices are expected to recover much more quickly and rise to a higher level than in the reference case. As a result, the Canadian dollar price for WTI is expected to surpass \$100 per barrel by 2021. Price growth will slow after that, but prices will remain persistently above \$110 per barrel in 2022 and beyond.

Under this scenario, the economics of developing high-cost projects would be favourable. As a result, the investment profile in the high-price scenario is considerably stronger than in the reference case. Investment will still decline in 2016, but it recovers quickly thereafter, surpassing its 2014 level by 2019. (See Chart 5.) By 2025, price-adjusted investment is expected to be 57 per cent higher than where it stood in 2014. A major limitation on investment over the forecast period will be capacity constraints (such as labour shortages, which the sector already experienced during its previous investment peaks in 2008 and 2014). For this reason, each scenario assumes a different rate of cost escalation for oil-related investments.

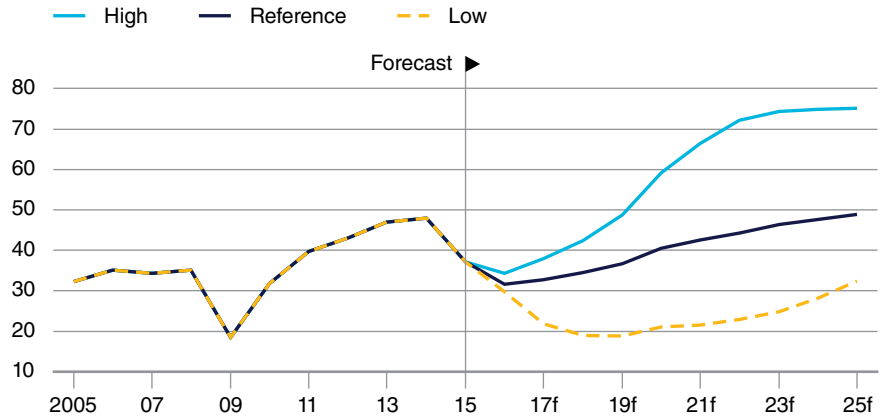
Given the large increases in oil-related investments over the forecast period, oil production will accelerate. Both conventional and non-conventional production in Western Canada will be higher in the high-price scenario, compared with the reference case, over the entire forecast period. By 2025, oil production in Canada will reach 5.9 mmbd.

The oil sands will account for much of this increase, with bitumen production rising by 1.8 mmbd over the forecast period in this scenario. This increase is sufficiently large that GHG emissions associated with oil sands projects may exceed the cap recently announced by the

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Chart 5
Oil-Related Investment Significantly Stronger in the High-Price Scenario

(real investment in oil and gas, 2007 \$ billions)



f = forecast

Sources: The Conference Board of Canada; Statistics Canada.

Alberta government.⁵ There are a variety of factors that will influence how GHG emissions per barrel in the oil sands change in the years to come. As well, because legislation associated with the announcement has yet to pass, it is difficult to assess how the cap will be implemented and therefore what its impact on investment and production might be. However, there is a risk in the high-price scenario that the GHG emission cap for oil sands producers could lead to investment and production being weaker than projected.

The higher production in this scenario will also require additional pipeline capacity. Beyond the three projects identified in the reference case, we estimate that about 500,000 b/d of additional pipeline capacity for export will be required by 2025. This capacity would require that price-adjusted investment in oil pipelines be about \$6 billion higher than in the reference scenario.

5 Government of Alberta, *Capping Oil Sands Emissions*.

Another key assumption in the high scenario is what may happen with LNG developments. We estimate that oil prices would be sufficiently high in the outer years of the forecast to make potential LNG projects, whose prices may be indexed to oil, economic. This could lead to an additional project being developed in the outer years of the forecast.

We do not explicitly add another LNG project into the high-price scenario. However, if another large project were to proceed the economic benefits associated with higher oil prices described in the following chapters would be even larger. The development of such a project could add more than \$5 billion per year to oil and gas investment in the outlying years of the forecast.⁶ As such, LNG represents an upside risk to the forecast in the high-price scenario, where the benefits would be highly localized in British Columbia.

6 Coad and others, *A Changing Tide*.

CHAPTER 3

Implications for Canada

Chapter Summary

- Higher oil prices are a net positive for Canada, but they impact the economy in a variety of ways.
- Generally, higher oil prices reduce Canada's non-oil exports due to their negative impact on the U.S. economy and their positive impact on the value of the Canadian dollar. The decline in non-oil exports is only partially offset by a rise in oil exports—thus, the net impact on trade is negative.
- Consumers benefit from higher oil prices through higher employment and incomes, as well as through lower prices for imported goods. However, they pay higher prices for gasoline. On balance, Canadian consumers benefit from higher oil prices.
- Businesses and government are also better off in a high oil-price environment. Business profitability and investment and government revenues all increase when oil prices rise.

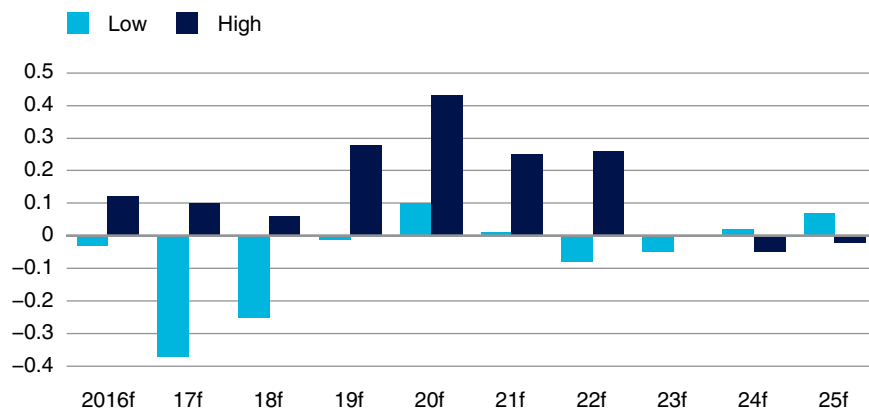
The impacts on the Canadian economy of changes in oil prices are complex and varied. Some regions, businesses, and households benefit from higher oil prices, while others experience a negative impact. A drop in oil prices generally reverses these impacts. Moreover, the scale of these impacts may change over time, as the economy reorganizes itself and recovers from the effects of the initial changes.

Overall, changes in oil prices have a significant impact on economic growth in Canada. On net, higher oil prices are a positive for the Canadian economy, while lower oil prices detract from economic growth. For example, in our high oil-price scenario, Canadian GDP is 1.4 per cent above where we expect it to be in the reference case. (See Chart 6.) At its peak, a 10 per cent increase in oil prices would be expected to increase GDP growth by about 0.2 per cent.

Chart 6

Changes in Oil Prices Have a Significant Impact on Canada’s Economic Growth

(difference in GDP growth between alternate and reference case, percentage points)



f = forecast

Sources: The Conference Board of Canada; Statistics Canada.

One of the most significant ways that changing oil prices impact the economy is through the changes in the value of the Canadian dollar.

In the high scenario, a surge in oil-related investment increases the productive capacity of the Canadian economy. Although a stronger dollar does reduce non-oil exports, the benefits of the higher oil-related investment lead to employment and GDP levels being consistently higher over the forecast period.

In the low scenario, we see the opposite situation. The large decline in oil-related investment leads to four consecutive years of recession in Alberta. And the resulting negative impact on business confidence and Alberta's supply chain links with the rest of the country lead to several years of weak growth for the Canadian economy as a whole. Growth in other non-oil-related sectors does eventually allow the economy to recover from the effects of this shock, but GDP and employment are consistently below what we expect in the reference case. The rest of this chapter provides a discussion of how different macroeconomic indicators—such as employment, incomes, and government revenues—perform across the different scenarios.

Trade

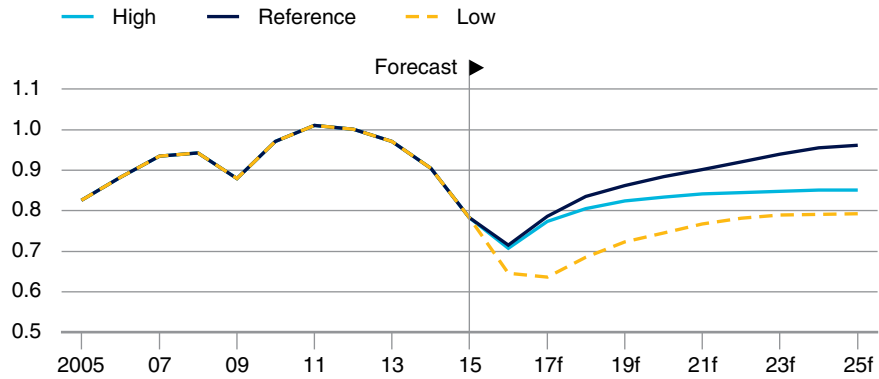
Aside from the direct impacts on oil production and investment, one of the most significant ways that changing oil prices impact the economy is through the changes in the value of the Canadian dollar and, subsequently, trade. Although oil prices are not the only thing that influence the value of the Canadian dollar, the currency does tend to rise when oil prices increase, and vice versa. As a result, we expect the Canadian dollar to be significantly stronger in the high scenario, averaging 6 cents U.S. higher than in the reference case between 2016 and 2025. (See Chart 7.) The opposite is true in the low scenario, where the value of the loonie will average 8 cents U.S. lower over the same period.

Changes in the value of the dollar will have an impact on Canada's trade performance. A stronger dollar would be expected to increase imports and reduce exports, while a weaker dollar should reduce imports and increase exports. These impacts are compounded by the fact that oil

Chart 7

Changes in Oil Prices Will Influence the Value of the Canadian Dollar

(C\$/US\$)



f = forecast

Sources: The Conference Board of Canada; Statistics Canada.

prices also affect economic growth among our trading partners. Most importantly, a 10 per cent reduction in oil prices would be expected to boost U.S. GDP growth by about 0.1 percentage points.¹ In turn, stronger economic growth in the U.S. would be expected to boost Canadian exports of goods and services. However, the impacts of a changing dollar on Canada's exports will be muted in the different scenarios.

In the high scenario, price-adjusted non-oil exports do drop relative to the reference scenario, but they are only 3.7 per cent lower by 2025. (See Chart 8.) A key reason why the impact isn't larger is that the Canadian dollar remains below parity with the U.S. dollar throughout the forecast period. An exchange rate in which the Canadian dollar is worth between 85 and 95 cents U.S. is similar to what Canadian businesses experienced for much of the decade leading up to 2015. As such, the adjustments to the Canadian economy that occur with an exchange rate at that level have already occurred. Price-adjusted

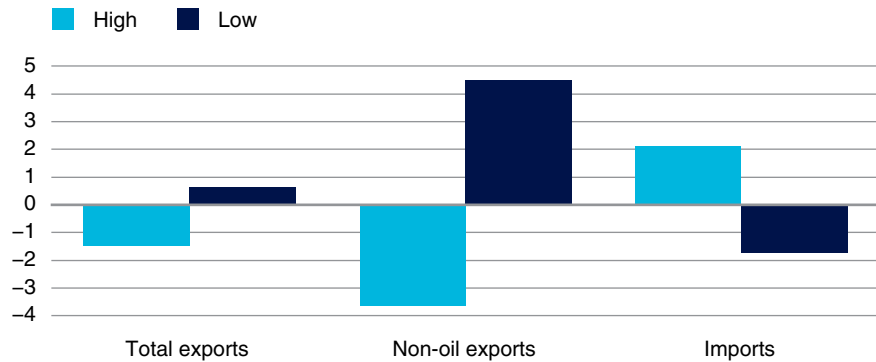
1 Murphy, Plante, and Yücel, *Plunging Oil Prices*.

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imports also rise in the high scenario relative to the reference case, but this is largely in response to stronger consumer spending and business investment over the forecast period.

Chart 8
Changes in the Value of the Canadian Dollar Impact Canada's Trade Flows

(difference from the reference case in 2025, per cent)



Source: The Conference Board of Canada.

We see the opposite impact in the low scenario, with price-adjusted non-oil exports rising by 4.5 per cent relative to the reference case by 2025 and imports being weaker. However, the transition away from oil and toward other exports will be a slow process. Canadian businesses will have to add to capacity, and imported machinery and equipment will be more expensive. As well, the competitive landscape in global markets has increased considerably over the past 20 years, with the rise of China and other emerging economies as key competitors.² As such, once the negative impacts of weaker oil exports are included, total Canadian exports will be only 0.6 per cent higher in 2025 in the low scenario than in the reference case.

2 Ai and Burt, *Walking the Silk Road*.

Between 2016 and 2025, Canadian employment is, on average, 65,000 higher in the high scenario.

Consumers

Changes in oil prices impact Canadian consumers in two primary ways. First, they affect prices, both directly for products in which oil is a major input (such as gasoline and heating oil) and indirectly through the exchange rate. For example, low oil prices have contributed to a weaker dollar over the past 18 months, which in turn led to higher prices for a variety of imported consumer goods, such as fruit and vegetables, furniture, and clothing. The second way that changes in oil prices impact consumers is through employment. Stronger oil prices, on net, lead to job creation in Canada, and vice versa when oil prices are low.

Changes in both employment and prices ultimately impact the income that consumers have available to spend. Strong job creation leads to higher total income (as more people are employed) and a potential improvement in price-adjusted wages (as labour markets tighten and firms seeking workers are forced to offer higher wages). Changes in prices also affect buying power. For example, lower gasoline prices in the past year have left consumers with more money to spend on other things.

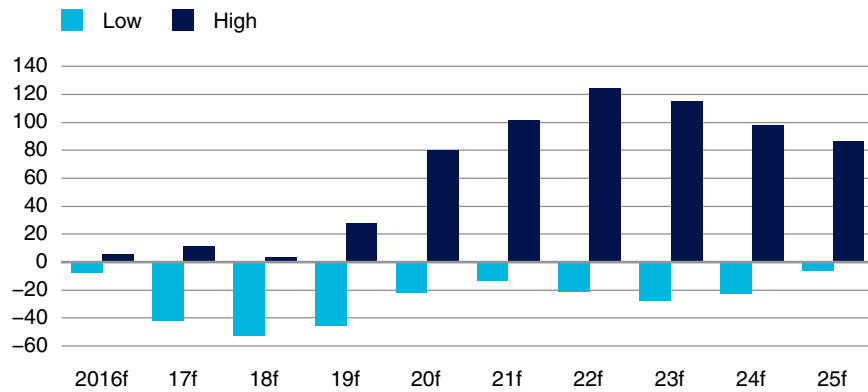
Overall, Canadian consumers are better off in the high oil-price scenario than in the reference case. Although inflation is slightly higher, job creation and income growth are sufficiently strong to offset this. Between 2016 and 2025, Canadian employment is, on average, 65,000 higher in the high scenario than in the reference case. (See Chart 9.) Higher wages draw more people into the workforce and modestly increase the labour force participation rate. As a result, price-adjusted consumer spending growth averages 2.4 per cent per year between 2015 and 2025 in the high scenario, versus 2 per cent in the reference case.

The opposite is true in the low-price scenario. Although inflation is weaker, employment levels and income growth are also weaker over the forecast period. For example, on average 26,000 fewer people are employed each year in the low scenario versus the reference case. As a result, price-adjusted consumer spending growth averages just

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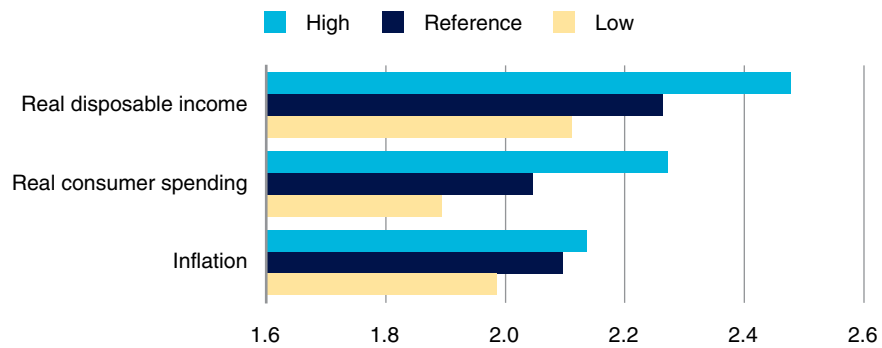
1.9 per cent between 2015 and 2025 in the low scenario. (See Chart 10.) Although the Canadian economy does eventually recover from the negative effects of lower oil prices, this recovery is a slow process and, during the transition period, the lost economic potential is considerable.

Chart 9
Employment Impacts Are Bigger in the High Scenario
(employment difference from the reference case, 000s)



f = forecast
Source: The Conference Board of Canada.

Chart 10
Consumer Income and Spending Is Stronger in the High Oil-Price Scenario
(average annual growth, 2015–25, per cent)



Source: The Conference Board of Canada.

With corporate profitability being so heavily impacted, business investment will see significant variations across the scenarios.

Businesses

Corporate profits in Canada also benefit from higher oil prices. Although some sectors, such as transportation and some manufacturing sub-sectors, may be negatively impacted by the higher costs that an increase in oil prices would impose, the overall impact on profits is overwhelmingly positive. Even among some major users of oil, such as refineries, higher oil prices don't necessarily have a negative impact on profitability, since the industry tends to pass its higher crude costs on to consumers. A comparison of the "crack spread" (the difference between wholesale prices for diesel and gasoline in Canada relative to the price of crude used in refineries) suggests that the spread has stayed within a narrow range over the past three years despite the large fluctuations in oil prices.

More broadly, given the importance of oil production in our economy, higher revenues at energy companies have an outsize impact on business confidence, cash flow, and investment intentions for oil producers and the many firms involved in the oil industry's supply chain. Overall, pre-tax corporate profits will average growth of 9.1 per cent a year between 2015 and 2025 in the high-price scenario versus 7.4 per cent in the reference case. (See Chart 11.) Conversely, corporate profits are much weaker in the low scenario, averaging growth of just 5.3 per cent over the same period.

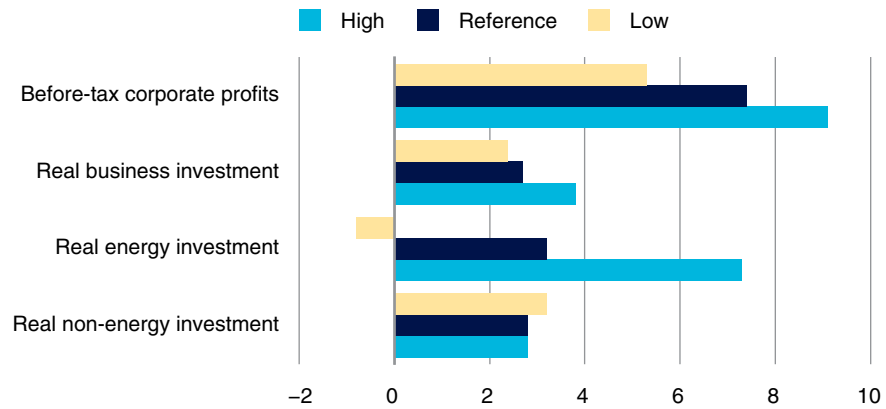
With corporate profitability being so heavily impacted, business investment will see significant variations across the scenarios. In the high scenario, on a price-adjusted basis, cumulative oil- and pipeline-related investment will be \$676 billion, which is \$186 billion (or 38 per cent) higher than the \$490 billion we expect to be spent in the reference scenario over the 2016–25 period. Price-adjusted non-energy-related business investment is expected to be modestly weaker over this period. Although a stronger dollar will detract from growth in non-energy exports, a stronger domestic economy will support investment spending.

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Chart 11

Business Profits and Investment Benefit From Higher Oil Prices

(average annual growth, 2015–25, per cent)



Source: The Conference Board of Canada.

We see a similar but opposite impact in the low scenario. Cumulative energy-related investment would be \$304 billion, which is \$176 billion (or 36 per cent) lower over the forecast period compared with the reference case. As well, while growth in non-energy investment will eventually accelerate in the low scenario, it will actually fall by 0.5 per cent at the start of the forecast period in 2016 in response to improving non-energy exports. Weak business confidence, a weaker loonie (which makes imported machinery more expensive), and the negative secondary impacts of reduced oil investment on the sector's suppliers will be the causes. This marks the continuation of a trend—non-energy investment in Canada shrank in 2015 despite solid growth in U.S. demand, high capacity utilization rates in manufacturing, and a weaker Canadian dollar making Canadian exports more cost competitive. In short, the adjustment process in Canadian business investment as it shifts away from oil toward other sectors will be slow and difficult.

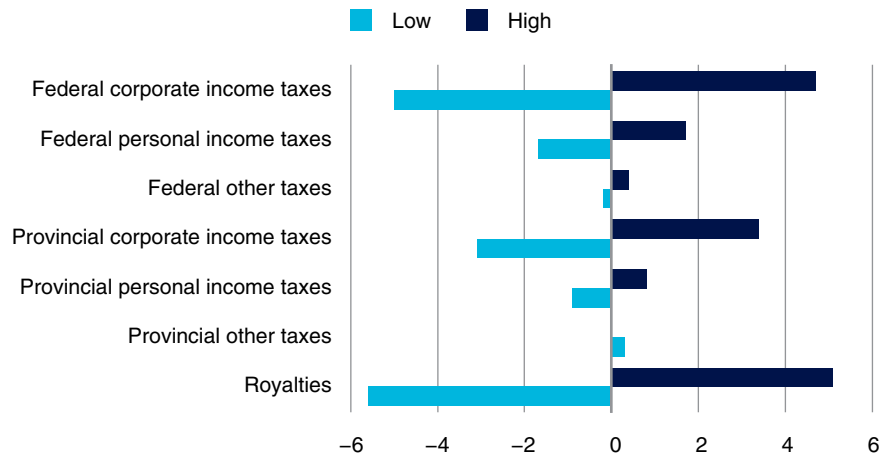
Fiscal Implications

Given the considerable differences in personal and corporate incomes across the three scenarios, it should come as no surprise that government revenues also experience considerable variations. In the high scenario, provincial and federal government revenues are, on average, \$16.1 billion higher per year over the 2016 to 2025 period. (See Chart 12.) Of this total, federal revenues account for \$6.8 billion, with provincial tax revenues rising by \$4.2 billion and the rest of the difference coming from royalties. Conversely, provincial and federal government revenues are, on average, \$16.1 billion lower per year in the low-price scenario relative to the reference case, with the federal government accounting for about half of the lost revenue.

Chart 12

Government Revenues Are Higher in the High-Price Scenario

(average annual difference in government revenues, 2015–25, \$ billions)



Source: The Conference Board of Canada.

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In both the high and low scenarios, corporate income taxes account for much of the difference in tax collections between the three scenarios, and the difference in revenues collected by the oil sector across the scenarios account for much of this impact. For example, over the 10-year forecast period, oil company revenues are, on average, \$54.5 billion below the reference case in the low scenario and \$37.8 billion above in the high scenario. However, personal income and sales tax collections will also vary significantly across the scenarios as a result of how income growth changes.

CHAPTER 4

Implications by Sector

Chapter Summary

- Oil producers and oilfield services are the industries that benefit most from higher oil prices. The construction industry is also a major beneficiary, thanks to increased oil-related investment.
- Financial services, professional services, and retail trade benefit from higher oil prices, although to a lesser degree. These gains are driven by the supply chain impacts of increased energy investment, as well as by the increase in consumer spending power.
- Manufacturing is the sector that experiences the largest negative impact in a high oil-price environment. Although increased oil investment does support some segments of manufacturing, those gains are more than offset by the stronger dollar's negative impact on trade.
- The wholesale trade and transportation sectors, on net, benefit from lower oil prices. Both sectors have strong links to the manufacturing sector.

The implications of changes in oil prices go far beyond the direct impacts on the oil industry itself. For example, changes in oil sector investment have major implications for the construction industry; as projects are approved or cancelled, demand for construction services rises and falls. As well, demand for oilfield services, such as contract drilling and well maintenance, depend on the level of oil investment and production. Suppliers of equipment, material, and services are also affected.

In a previous study, The Conference Board of Canada found that six key sectors are affected by supply chain links to investment in the oil and gas sector. They include professional services (such as engineering and computer services), oilfield services, manufacturing, wholesale trade, financial services, and transportation.¹ These supply chain links also extend across the country, with about one-third of the Canadian supply chain employment impacts occurring outside Alberta.

Of course, the trade implications of changing oil prices for other sectors discussed in the previous chapter do offset some of the direct and supply chain implications in the oil sector. However, the impacts associated with the oil sector tend to outweigh the other effects. The rest of this chapter summarizes the economic impacts of the different oil price scenarios for several key sectors of the Canadian economy.

Oil Production and Oilfield Services

The largest changes in relative GDP and employment across the scenarios occur in the oil and gas sector itself, and in the oilfield services industry. (See Chart 13.) The changes are particularly large in the oilfield

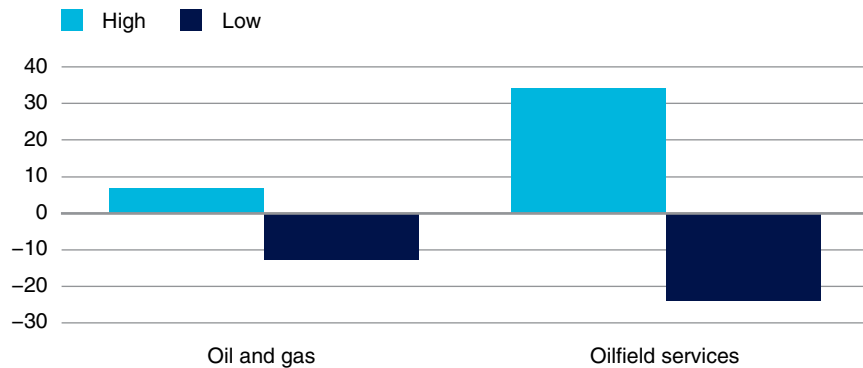
1 Burt, Crawford, and Arcand, *Fuel for Thought*.

services industry. Contract drilling is the largest activity it undertakes, and drilling activity is very sensitive to fluctuations in energy prices. For example, according to the Canadian Association of Oilwell Drilling Contractors (CAODC) the number of oil wells drilled in Canada fell by 42 per cent in 2015, with lower oil prices being the primary cause.² This industry also undertakes a variety of well maintenance activities that are influenced by the number of oil wells that are operating, and this also varies over time in the different scenarios. The end result is that GDP in the oilfield services industry in the high scenario is expected to be 34 per cent above the reference case in 2025, while it will be 24 per cent below in the low scenario.

Chart 13

Scenario Impacts Are Largest for the Oil and Gas and Oilfield Services Sectors

(difference in 2025 GDP, by scenario, per cent)



Source: The Conference Board of Canada.

Given the fluctuations in output across the different scenarios, combined employment in oil and gas and oilfield services will also follow a different path. In the reference case, oil and gas-related employment is expected to experience strong growth, rising from 208,000 in 2015 to 252,000 by

2 CAODC, *Well Count Statistics*.

Outside of the oil and gas and oilfield services industries, the largest differences across the scenarios occur in the construction industry.

2025. Employment will also rise in the low scenario, but only modestly—to 215,000 by 2025. Conversely, jobs gains in the high scenario will be much stronger, with direct employment reaching 278,000 by the end of the forecast period.

Construction

Outside of the oil and gas and oilfield services industries, the largest differences across the scenarios occur in the construction industry. This is because oil investment, particularly in the oil sands, requires considerable investment in things such as storage tanks, pipelines, and structures. In fact, oil and gas-related investments accounted for 40 per cent of business construction spending in Canada in 2015. As such, the large changes in oil and gas-related investment across the three different scenarios drive significant impacts in the construction sector.

In the high scenario, construction GDP is 5.8 per cent above the reference case in 2025, while employment is 5.7 per cent higher. (See Chart 14.) Conversely, in the low scenario, GDP and employment are 3.3 per cent and 3.5 per cent lower. These differences peak in 2022 in the high scenario, when the gap in investment activity is largest. In the low scenario these differences are fairly consistent over time, since oil and gas investment activity is consistently lower over the forecast period.

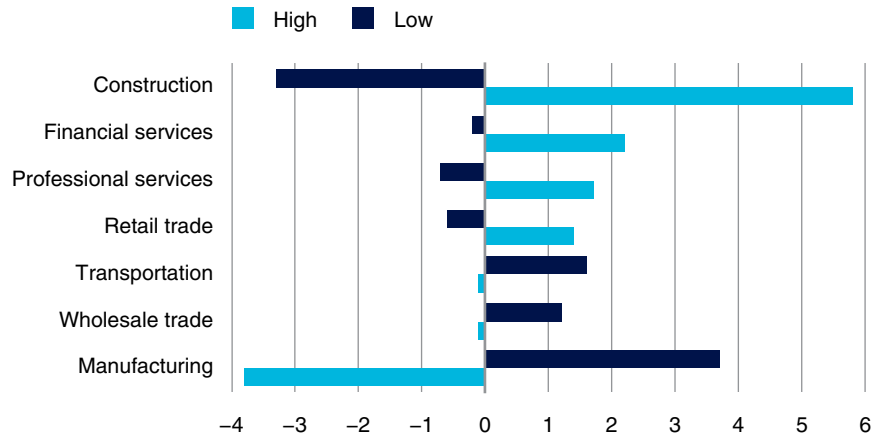
Other Sectors That Benefit From Higher Oil Prices

There are three other major sectors that benefit from higher oil prices and are negatively affected by lower oil prices—financial services, professional services, and retail trade. In the case of financial services and professional services, the key factor driving this result is their supply chain links to the oil and gas sector. Oil and gas is a capital-intensive business. As such, arranging the financing necessary to support the sector's investment activity creates significant benefits for the

Chart 14

Construction, Financial Services, Professional Services, and Retail Benefit From Higher Oil Prices

(difference in 2025 GDP, by scenario, per cent)



Source: The Conference Board of Canada.

financial services sector. Engineering is the main beneficiary within the professional services sector, but other activities, such as geophysical surveying and mapping and computer services, also benefit.

In the case of retail trade, the sector benefits for a different reason—stronger income growth. As we described in Chapter 3, employment and personal income, and thus consumption, all rise in the high scenario relative to the reference case. This means retailers see an increase in their revenues, GDP, and employment in the high scenario. The opposite occurs in the low scenario.

As well, government-related sectors, such as education, health care, and public administration, have the potential to experience stronger growth in a high oil-price environment. In our modelling we did not increase government spending in accordance with their increases in revenues. In essence, we assumed that governments would reduce their deficits and pay down debt. However, if federal or provincial governments chose to spend their increased revenues, there would be additional positive economic impacts.

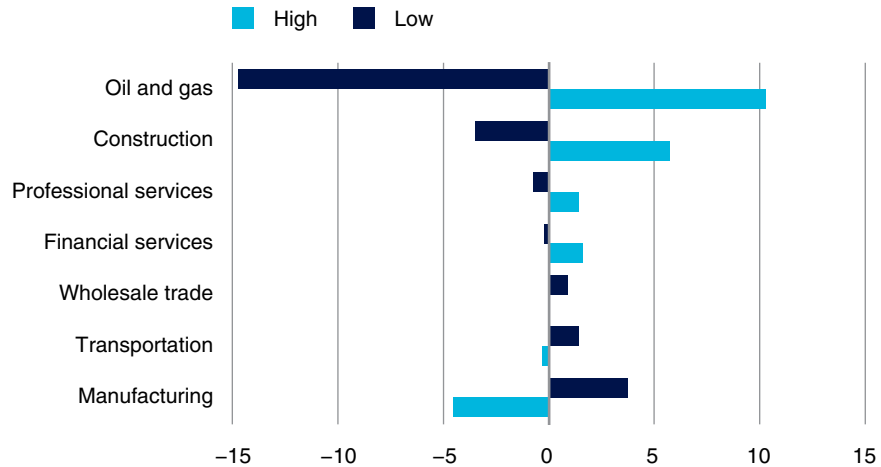
Sectors That Benefit From Lower Oil Prices

Of course, not all sectors benefit from higher oil prices. The sector that experiences the largest decline in GDP and employment in the high scenario relative to the reference case is the manufacturing sector. For example, employment in the sector is 4.5 per cent lower in 2025 in the high scenario versus the reference case. (See Chart 15.) This is primarily due to the negative impact that a stronger dollar has on the sector's exports, but higher input costs are also a factor for some industries within manufacturing. It is important to note that some Canadian manufacturers do benefit from increased oil-related investment (particularly makers of oil and gas machinery, fabricated metal products, and primary metals). But, on net, manufacturing benefits from lower oil prices.

Chart 15

Manufacturing, Transportation, and Wholesale Trade Benefit From Low Oil Prices

(difference from reference scenario in 2025 employment, per cent)



Source: The Conference Board of Canada.

The other two major sectors that, on net, benefit from lower oil prices include transportation and wholesale trade. Both of these sectors have strong links to the manufacturing sector, and as such benefit from increased manufacturing activity. Although both sectors also have links to the oil industry (and thus some companies would benefit from a high oil-price environment), on net their links to manufacturing are stronger than their links to the oil industry.

CHAPTER 5

Implications by Province

Chapter Summary

- Alberta, Newfoundland and Labrador, and Saskatchewan are the provinces that benefit from a high oil-price environment. By far, the greatest share of the benefits accrue to Alberta.
- All of the other provinces tend to experience a small net negative impact as a result of higher oil prices. The size of the negative impact—in terms of employment, GDP, and government revenue—depends on the extent of each province's trade linkages with Alberta.

The previous chapter discussed the economic impacts for different sectors of the economy. In turn, because the Canadian industrial mix is not uniform across provinces, these impacts will spread out to the provincial economies in different ways. In general, the direct impact on investment and production will be concentrated in oil-producing provinces, whereas the supply chain, international trade, and income-related changes in the economy will be more widely spread. The rest of this chapter outlines the impacts of the high and low oil-price scenarios for key provinces.

Alberta

As Canada's largest oil-producing province, the impact of shifting oil prices will have the strongest impacts in Alberta. The decline in oil prices since mid-2014 has already had drastic negative implications for the provincial economy. We estimate that the province suffered a 2.9 per cent contraction in real GDP in 2015, and we expect a second year of contraction in 2016, with a decline of 1.1 per cent expected in the reference case. It is only in 2017 that Alberta's economy begins to recover from the effects of the recent drop in oil prices.

In the low oil-price scenario, private investment remains persistently weaker throughout the forecast. Indeed, with oil prices projected to remain below the estimated break-even point for most oil sands projects, price-adjusted investment in 2025 is 31 per cent below the reference case scenario. With less investment activity, output in the provincial construction sector is immediately and permanently reduced. The weaker investment leads in turn to a drop in capacity in oil extraction,

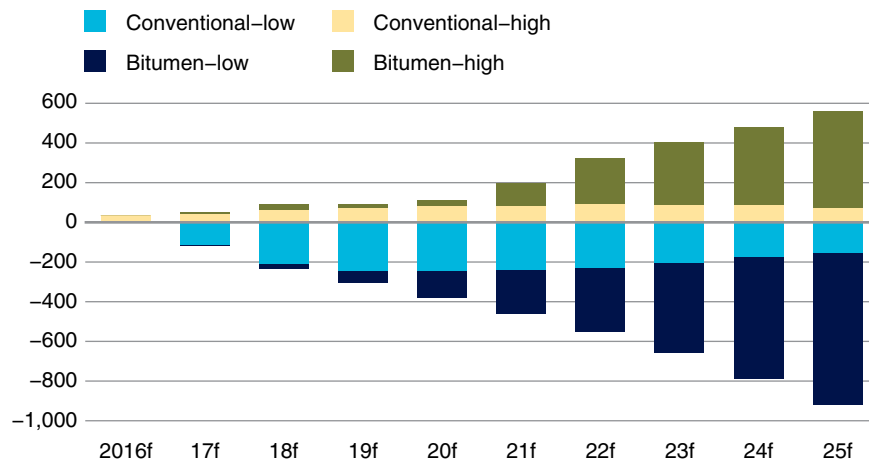
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and production of both conventional and non-conventional crude is substantially lower, for a combined reduction in production of more than 900,000 b/d. (See Chart 16.)

Chart 16

Oil Production in Alberta Is Heavily Impacted by the Price Outlook

(Alberta oil production, difference from reference case, thousands of barrels per day)



f = forecast
Source: The Conference Board of Canada.

All major sectors in Alberta would see slower rates of growth throughout the forecast in the low scenario. The oil and gas and construction sectors are the ones most heavily impacted, due to the direct impacts associated with reduced investment and production. But key supply chain components in the province, including manufacturing, wholesale trade, and professional services, also show notable declines. In aggregate, the provincial economy sees its average annual rate of growth drop from 2.1 per cent in the reference case to just 1.4 per cent with low oil prices. As a result, real GDP in the province is 7.2 per cent lower by 2025.

By 2025, we estimate Alberta's employment would be 7.3 per cent higher in the high oil scenario than in the reference case, and 4.8 per cent lower with low oil prices.

The employment impacts in the low scenario are also substantial. By 2025, total employment in the province is 4.8 per cent lower than in the reference case, and employment in Alberta is reduced, on average, by 126,000 jobs each year. The construction sector would see the largest negative impacts, with construction employment reduced by 22.9 per cent (or 58,900 jobs) relative to the reference case in 2025. Construction would account for about half of the relative job losses in Alberta.

In the high scenario, the positive impacts are substantial in terms of both output and employment. As oil prices rebound more quickly than in the reference case, the investment climate improves immediately. By 2025, price-adjusted oil and gas investment is 52 per cent higher than in the reference scenario. Conventional oil production would see an immediate, but modest increase in the near-term, but the bulk of higher oil production will come in the form of new oil sands projects. These projects ramp up production levels of bitumen in the post-2020 period.

The surge in investment and the gains in production that would follow lift GDP from an average annual rate of growth of 2.1 per cent in the reference case to 2.9 per cent in the high scenario. As a result, provincial GDP is 7.5 per cent higher than in the reference scenario in 2025. The construction and oil and gas sectors see the largest increases in output, but most sectors realize a substantial lift in output levels over the forecast period.

Employment gains are also substantial in the high scenario. By 2025, we estimate that total employment in Alberta would be 7.3 per cent higher than in the reference case, and that employment in the province would be 129,000 higher each year on average. The construction industry would be the primary beneficiary, accounting for 45 per cent of the expected employment gains. But financial and professional services, oil and gas, and wholesale trade would all see significant employment gains relative to the reference case. As well, higher employment and stronger income growth create additional demand in consumer-oriented industries such as retail and food services.

Because Saskatchewan's economy is less integrated with the oil sector, it is better positioned to offset the direct losses associated with lower oil prices.

Other Provinces That Benefit From Higher Oil Prices

As Canada's second largest oil-producing province, Saskatchewan's economic performance is also linked to oil price movements. Investment in the province's oil sector declined in 2015, and in the low oil-price scenario this trend would continue through 2018. By 2025, oil-related investment is 45 per cent lower than in the reference case, and \$11.2 billion in cumulative investment is forgone. Conversely, with higher oil prices, investment begins to improve in 2017, and it climbs steadily through 2025. This represents a net gain of 59 per cent in investment levels by 2025 and a cumulative increase in investment equivalent to \$9.9 billion.

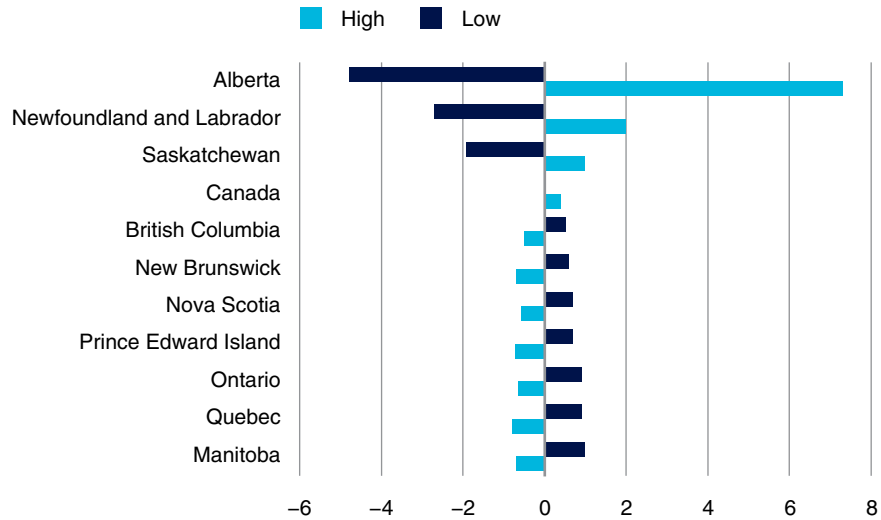
Oil production in Saskatchewan is entirely conventional and, as such, responds quickly to a changing price environment. In the low scenario, new wells completed fall short of replacing the declines at existing fields and oil production consequently falls from 504,000 b/d in 2015 to 355,000 b/d by 2025—26.1 per cent lower than in the reference case. The negative direct and supply chain impacts associated with this decline mean that ultimately Saskatchewan's economy is 0.6 per cent smaller in 2025 than in the reference case. Total employment in the province is also reduced by 1.9 per cent (or 11,700 jobs) by 2025, with the vast majority of those losses expected in construction and oil and gas. (See Chart 17.) But other industries, such as agriculture and transportation, see modest increases in payrolls by 2025.

The oil sector accounts for a much smaller share of the provincial economy in Saskatchewan than in Alberta and, thus, the negative impacts associated with lower oil prices over time are commensurately smaller. Moreover, because Saskatchewan's economy is less integrated with the oil sector, it is better positioned to offset the direct losses with gains in other sectors of its economy, particularly those—such as agriculture, manufacturing, and non-oil mining activity—that benefit from the lower value of the Canadian currency.

Chart 17

Oil-Producing Provinces See Higher Employment in the High Scenario

(employment difference from reference scenario in 2025, per cent)



Source: The Conference Board of Canada.

Nevertheless, Saskatchewan’s economy is better off when oil prices are higher. Average annual growth in real GDP picks up from 1.6 per cent a year in the reference case to 1.8 per cent in the high scenario. The primary impacts would be in oil and gas, as well as construction, but most service industries would also be better off thanks to higher corporate and labour income. A drop in agriculture-related activities, including transportation, tempers the benefits for Saskatchewan. But, ultimately, GDP is 1.5 per cent larger and employment is lifted by 6,000 jobs by 2025.

The other province that is a net beneficiary of higher oil prices is Newfoundland and Labrador. Although the province is a smaller producer, with oil production averaging about 220,000 b/d, oil still plays a major part in the province’s economy. For example, we estimate that the oil and gas sector directly accounted for about 20 per cent of the province’s GDP in 2014.

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As well, although Newfoundland and Labrador has few supply chain links to oil sands activity, the province is a major beneficiary of income remittances from people working in Alberta but living in Newfoundland and Labrador. We estimated that, conservatively, there were about 1,000 Newfoundland and Labrador residents working in the Fort McMurray region in 2011, and we think that number was much higher at the peak of oil sands investment in 2014.¹ That is equivalent to about 0.5 per cent of the province's employment in 2015, and it meant tens of millions of dollars of labour income returning to the province.

Because oil production in Newfoundland and Labrador is entirely offshore, it is highly capital-intensive and, thus, less sensitive to fluctuations in oil prices. Although we do not expect the development of new offshore fields in any of the scenarios, higher oil prices do spur increased consumer and business confidence, as well as increased interest in oil investment and higher income remittances from Alberta. Oil production is, on average, 14,000 b/d higher versus the reference case, and this is sufficient to lift real GDP by an additional 2.5 per cent. Conversely, in the low scenario, lower production and a reduced pace of new investment in oil extraction outweighs any potential benefits to the export-intensive metal mining sector, and the economy is 2.9 per cent smaller by the end of the forecast.

Ontario and Quebec

The largest impacts of changes in oil prices will naturally accrue to the country's oil-producing provinces. But the strong link between oil prices and the Canadian dollar means that oil price movements have ripple effects in other provinces and industries. In particular, Ontario and Quebec can both expect to be slightly better off in a low oil-price environment.

1 Burt, Crawford, and Arcand, *Fuel for Thought*.

Ontario and Quebec are both better off when oil prices (and therefore the value of the Canadian dollar) are lower.

In the high oil-price scenario, Ontario and Quebec's manufacturing sectors benefit from the improvement in domestic oil investment, which partially offsets any weakness in export-intensive industries such as motor vehicles, chemicals, and aerospace that results from the stronger dollar. Moreover, net positive impacts in industries such as financial services, professional services, and retail help to offset the manufacturing losses.

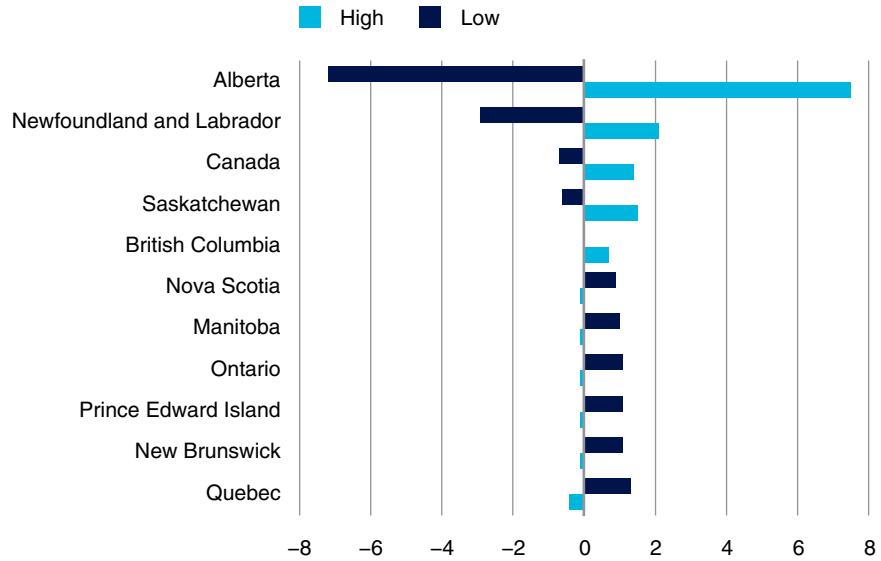
Although the impacts by industry are distributed somewhat differently, the aggregate results for Ontario and Quebec are largely similar. In the high scenario, GDP in Ontario is 0.1 per cent smaller, while in Quebec GDP is 0.4 per cent lower in 2025. (See Chart 18.) The smaller negative GDP impacts in Ontario are the result of Ontario's stronger supply chain links to Alberta's oil and gas sector. On the other hand, employment in Ontario is, on average, 30,500 lower each year over the forecast period, while it is just 21,000 lower in Quebec. Thus, overall, Ontario benefits slightly more from the pickup in domestic demand that would result from higher oil prices.

Although the negative impacts tied to higher oil prices are modest for Ontario and Quebec, both provinces are better off when oil prices (and therefore the Canadian dollar) are lower. Despite the fact that domestic economic activity is weaker when oil prices are low, both provinces benefit from Canada's improved export competitiveness and the stronger demand from U.S. consumers that results from lower overall energy prices. The gains are concentrated in the manufacturing sector, but associated industries such as transportation and wholesale trade also improve. Construction activity in both provinces also benefits from higher non-oil-related investment, and residential construction is also stronger over the forecast thanks to stronger labour markets. In aggregate, Ontario's real GDP is lifted, relative to the reference case, by 1.1 per cent in 2025 while Quebec's economy is 1.3 per cent higher. In terms of employment, Ontario and Quebec gain 68,700 and 39,000 net jobs.

Chart 18

Ontario and Quebec Experience Small Negative Effects in the High Scenario

(difference from reference scenario in 2025 GDP, per cent)



Source: The Conference Board of Canada.

Other Provinces

The Maritime provinces see modest negative impacts when oil prices are high, but in all cases their GDP is only 0.1 per cent less in 2025 in the high scenario versus the reference case. In general, the Maritime provinces have no direct connection to oil production, and their long distance from Western Canada means that they have few supply-chain links to Alberta. But in the low scenario, the entire region benefits from stronger export demand for key commodities. In aggregate, these three provinces see real GDP lifted by 1 per cent in 2025 and have 5,600 more people employed, compared with the reference case.

In the high scenario, British Columbia is affected by weaker exports, particularly of forestry products. However, the province would capture significant supply chain benefits from the upswing in construction in neighbouring Alberta. Consequently, provincial GDP is 0.7 per cent

higher than the reference case in 2025. However, this would also entail a shift in the province's employment mix away from labour-intensive industries and total employment in the province actually falls by 14,000 jobs, or 0.5 per cent, as a result. If, however, another LNG project were to proceed, in the high scenario the impacts for British Columbia would be unambiguously positive. The situation is reversed when oil prices are low. Demand in labour-intensive industries, such as those related to tourism, improves and total employment is 12,000 positions greater in 2025. However, GDP is little different than in the reference case due to the shift into industries with lower average output per worker.

Manitoba produces oil, but not in sufficient quantities for it to be the determining factor in its future growth path. Indeed, Manitoba's economy is stronger in the low scenario due to its strong attachment to export-oriented industries and the linkages between the Manitoba and Ontario economies. Gains are prominent in manufacturing and agriculture, and the province's mining sector also benefits from the lower dollar. By 2025, real GDP in the province is 1 per cent higher than in the reference case and total employment is lifted by 6,800 positions. When oil prices are high, however, Manitoba's economy does suffer some modest negative impacts. The resulting higher dollar has negative implications for agriculture and associated industries, as well as for manufacturing in the province. Manitoba's GDP is 0.1 per cent smaller in 2025 in the high scenario and employment is lower by an average of 3,000 positions over the forecast period.

Provincial Fiscal Implications

In aggregate, both corporate profits and total employment are stronger in the high scenario, and this leads to higher personal and corporate income tax collections. As well, provincial royalty collections are significantly higher due to both higher prices and production. The reverse is true in the low oil-price scenario. Royalty and corporate income collections are sharply lower, while the loss to total employment reduces

Outside of the three main oil-producing provinces, the fiscal impact of higher oil prices is negative.

personal income tax collections. However, because the economic implications of the different oil price scenarios vary by province, the fiscal impacts also vary.

As Alberta's economy is most heavily impacted by the future path in oil prices in terms of output and employment, it is there that the majority of gains or losses will accrue. In the high scenario, total budgetary revenues in Alberta are lifted by an average of \$9.5 billion per year between 2016 and 2025, compared with the reference scenario. (See Table 3.) Increased royalty payments account for the greatest share of these gains, at roughly \$4.4 billion per year, followed by corporate income taxes (\$3.3 billion per year) and personal income taxes (\$1.2 billion per year). In the low scenario, we estimate that Alberta's budgetary revenues would be \$9.7 billion lower per year on average.

As we would expect, Saskatchewan and Newfoundland and Labrador are the other two provinces to benefit fiscally as a result of higher oil prices. Although British Columbia and Manitoba would benefit from higher royalty payments, these increases are not sufficiently large to offset declines in other types of revenues. As a result, aside from the three main oil-producing provinces, the fiscal impacts of higher oil prices are negative. The opposite is true in the low-price scenario.

However, it is interesting to note that the fiscal impacts are much larger in Alberta than in all the other provinces combined. As a result, the fiscal impacts in Alberta dominate the aggregate results for all of the provinces. On average, combined provincial revenues are about \$9.3 billion higher per year in the high scenario and \$9.3 billion lower in the low scenario. This is equivalent to about 2.3 per cent of all provincial revenues in 2015.

Table 3

Fiscal Implications by Province

(average annual difference, 2016–25, \$ millions)

	Low Oil Scenario						High Oil Scenario					
	Personal income taxes	Corporate income taxes	Provincial sales taxes	Royalties	Other taxes	Total	Personal income taxes	Corporate income taxes	Provincial sales taxes	Royalties	Other taxes	Total
British Columbia	62	177	55	-114	11	191	-57	-151	-53	69	32	-160
Alberta	-1,325	-3,455	0	-4,565	-357	-9,702	1,153	3,279	0	4,386	637	9,455
Saskatchewan	-58	-259	-13	-490	-5	-825	23	274	12	319	21	649
Manitoba	26	130	19	-48	-5	122	-18	-8	-18	30	-1	-15
Ontario	292	313	222	0	106	933	-202	-52	-235	0	-235	-724
Quebec	146	173	147	0	61	527	-117	-50	-121	0	-28	-316
New Brunswick	10	85	11	0	5	111	-9	-1	-11	0	-1	-22
Newfoundland and Labrador	-34	-371	-9	-367	-8	-789	5	120	9	332	12	478
Prince Edward Island	2	20	2	0	1	25	-2	0	-2	0	0	-4
Nova Scotia	12	61	16	0	5	94	-10	-4	-15	0	0	-29
Total provinces	-867	-3,126	450	-5,584	-186	-9,314	766	3,407	-434	5,136	437	9,312

Source: The Conference Board of Canada.

CHAPTER 6

Summary

Chapter Summary

- Canada clearly benefits from higher oil prices. In the high price scenario employment is on average 65,000 people higher compared to the reference scenario.
- Other key benefits include an increase in the productive capacity of the economy, stronger income growth, and additional government revenues. We estimate that federal and provincial revenues are \$16.1 billion higher per year in the high scenario versus the reference scenario.
- It is also clear that these benefits are localized in the oil producing provinces, especially Alberta. High oil prices are likely to increase the disparities in incomes across the provinces.
- Canada's economy will adapt whatever the future path of oil prices and this will bring success to some stakeholders, while it will challenge others. Striking the correct balance between stakeholders is a key challenge for governments in this environment.

The results of our findings are clear. On net, higher oil prices produce a stronger economic performance in Canada, while lower oil prices reduce growth. This confirms Bank of Canada governor Stephen Poloz’s statement in January 2015 that lower oil prices are “unambiguously negative for the Canadian economy.”¹

Key benefits that occur in the high-price scenario include:

- an increase in the productive capacity of the economy;
- an average of 65,000 additional jobs each year between 2016 and 2025;
- stronger growth in real disposable income;
- additional federal and provincial government revenues averaging \$16.1 billion per year, with most of the increase coming from higher corporate income taxes and royalties.

Conversely, the low-price scenario results in a prolonged period of weaker economic growth with employment levels only just recovering back to the reference case by 2025. However, in order to achieve this recovery, the Canadian economy must go through a difficult transition that reduces the role of the oil sector in the economy, while gradually building capacity in other sectors. The end result is that GDP and income levels are lower and significant economic potential is lost.

However, despite the clear benefits of higher oil prices for the Canadian economy as a whole, it is also clear that those benefits are localized in the major oil-producing provinces—specifically, in Alberta. Although other provinces do receive some benefits from higher oil prices, primarily through supply chain links to those provinces that produce oil, on net they are modestly worse off in the high scenario. Given that incomes are already above average in the oil-producing provinces, this means that high oil prices increase the regional disparities across the country.

1 Bank of Canada, *Opening Statement by Stephen Poloz*.

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Canada's economy has already made a significant shift toward becoming more dependent on oil over the past decade, and this shift is expected to continue, albeit at a modest pace in the reference scenario. The high-price scenario would accelerate this transition, while the low-price scenario would bring it to a halt. In the low-price scenario, other sectors would eventually grow to replace oil production, but Canada will not be able to simply return to a pre-oil sands mix of economic activity. Domestic capacity has been lost, and the global competitive environment has changed. Canadian businesses will need to find new growth opportunities.

Whatever the future path of oil prices, Canada's economy will continue to adapt to global market conditions. This will bring success to some institutions, businesses, and individuals, while it will challenge others. The challenge for governments in this environment is how to find the right balance between the many stakeholders, leveraging the benefits accrued to some while mitigating the costs to others, all while maintaining Canada's economic health and diversity.

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APPENDIX A

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APPENDIX B

Model Methodology

Defining the Scenarios

The reference scenario described in this report is based on The Conference Board of Canada's Winter 2016 economic outlook.¹ As such, it is well defined and documented in The Conference Board of Canada's existing reports. The two alternative scenarios (high and low oil price) were developed specifically for this project. They are not meant to describe a specific sequence of events in the world economy or global oil markets. Instead, they are meant to provide a range of potential movement for global oil price benchmarks in the next 10 years. This allows us to model the impacts that occur specifically as a result of changes in oil prices.

Once the oil prices were set, the Conference Board was able to develop a forecast for oil-related investment and production by province across Canada. For conventional production, investment levels are based on profits, which are in turn affected by revenues—and, thus, production levels and prices. For the oil sands, a database of projects is used and projects are added or taken off the list, based on the price scenario. Finally, forecasts for oil exports and the required pipeline take-away capacity are based on the production forecasts and expected refinery demand in Western Canada.

1 The Conference Board of Canada, *Canadian Outlook Economic Forecast: Winter 2016*.

Canadian Model

As a result of our initial modelling work, several concepts—including oil production and exports, oil- and pipeline-related investment, and the value of the Canadian dollar vis-à-vis its U.S. counterpart—were determined. We then insert these concepts into the Conference Board's models as an exogenous shock in each of the two alternative scenarios. This allowed us to model how the predetermined changes in oil prices, production, and investment impacted the Canadian economy over the 10-year forecast period.

The Conference Board's Canadian macroeconomic model is a partial general-equilibrium model with more than 2,000 variables, of which 1,100 are endogenous. These endogenous variables refer specifically to the structure of the National Income and Expenditure Accounts, as well as related indicators for productivity, wages, prices, financial markets, international capital flows, and interest and exchange rates. The model includes disaggregated modelling of prices, employment, and investment. As well, the government sector is also treated in great detail and incorporates a variety of government revenue and spending categories.

Moreover, the Canadian model is fully integrated with all the other forecasting tools that were used for the purposes of this project, including the provincial and U.S. forecast models. This ensures a consistent result between Canada and the provinces, as well as between Canada and the external economic environment. This consistency is critical to the analysis, because the small size and openness of the Canadian economy is such that many prices are determined globally and the prices of imported commodities feed into the existing price block of the Canadian model. It also allowed the Conference Board to assess the impacts of changing oil prices on each of the provinces.

Provincial Model

The Conference Board's provincial forecasting tool is modelled at the highest level of detail currently produced in the Provincial Economic Accounts by Statistics Canada and has many of the same characteristics as the national model. The provincial model contains more than 3,800 variables, of which 2,900 are determined endogenously. The remainder are largely exogenous national indicators, or accounting and definitional equations. For each province, there are a number of simultaneous blocks of equations, including final domestic demand (personal consumption, government spending, capital formation, and net trade), production by industry, income, prices, and labour market blocks. The provincial model also has an endogenous provincial population block in which net interprovincial migration plays a key role in determining overall population growth. The dynamics and linkages in the provincial model are freely estimated and thus are different for all provinces.

Prices respond to aggregate demand conditions as well as intermediate material costs, international and interprovincial import prices, and changes in the indirect tax structure. Potential output and the output gap are fully integrated in the models, thus the gap and speed of gap closure are explicitly introduced into most price equations to represent supply-side feedback.

The provincial model also includes a government finance block, which was used to generate the fiscal impacts by province, including personal and corporate income taxes, sales taxes, and other revenue sources. The Conference Board also made use of its supplementary oil royalty model. This model estimates oil royalties for all Western provinces and Newfoundland and Labrador and freely adjusts to changing prices and production of different oil types over time.

U.S. Forecasting Model

This forecasting tool is employed by the Conference Board as a key input into both the national and provincial forecasting models. The U.S. model is constructed using the same methodology as the Canadian and provincial forecasting tools, but at a lower level of detail. Crucially, deploying the U.S. model in the context of this project allowed us to determine how changes in oil prices would impact the U.S. economy, which in turn allowed for a more accurate estimation of the impact on Canadian prices and trade. For example, higher crude prices lead to greater levels of investment in U.S. oil production, but also act as a drag on consumer spending as energy costs rise. The Conference Board's U.S. model allows for the determination of the net impact of these competing trends and the pass-through effect on prices and demand to the Canadian economy.

APPENDIX C

Data Tables

Table 1

Benchmark Energy Prices

(oil prices, \$ per barrel; gas prices, \$ per million BTU)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	CAGR* (%)
Reference												
US\$												
WTI	48.8	37.1	45.3	51.1	59.0	65.5	71.0	75.7	78.5	80.5	82.9	5.4
Brent	53.6	41.7	49.8	55.5	63.2	69.5	74.9	79.4	82.1	83.8	86.1	4.9
Edmonton Par	44.9	33.5	41.8	47.7	55.7	62.3	67.9	72.8	75.7	77.7	80.3	6.0
Hardisty Heavy	33.2	22.8	29.9	35.2	42.7	49.1	54.3	59.0	61.7	63.5	65.9	7.1
WCS	35.4	26.1	33.6	39.1	46.9	53.3	58.7	63.5	66.3	68.2	70.7	7.1
Henry Hub	2.6	2.5	2.8	3.2	3.6	4.0	4.3	4.5	4.8	5.0	5.3	7.2
AECO	2.7	2.8	2.9	3.3	3.8	4.1	4.4	4.6	5.0	5.2	5.5	7.3
C\$												
WTI	62.4	52.4	58.5	63.5	71.6	78.6	84.5	89.7	92.6	94.5	97.4	4.6
Brent	68.6	59.0	64.4	68.9	76.6	83.5	89.0	94.0	96.7	98.5	101.2	4.0
Edmonton Par	57.4	47.3	54.0	59.3	67.6	74.8	80.8	86.2	89.2	91.3	94.3	5.1
Hardisty Heavy	42.4	32.1	38.7	43.7	51.8	58.9	64.6	69.9	72.7	74.6	77.4	6.2
WCS	45.3	36.8	43.5	48.6	56.8	64.0	69.8	75.2	78.1	80.1	83.0	6.2
Henry Hub	3.4	3.5	3.6	4.0	4.4	4.7	5.1	5.3	5.7	5.8	6.2	6.3
AECO	3.5	3.9	3.8	4.1	4.6	4.9	5.3	5.5	5.9	6.1	6.4	6.4
Low												
US\$												
WTI	48.8	24.0	22.2	30.0	36.2	40.2	43.6	46.5	48.2	49.4	50.4	0.3

(continued ...)

FINDING OUR BALANCE
How Changes in Oil Prices Impact Canada's Economy

Table 1 (cont'd)

Benchmark Energy Prices

(oil prices, \$ per barrel; gas prices, \$ per million BTU)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	CAGR* (%)
Brent	53.6	28.7	26.7	34.4	40.4	44.3	47.5	50.2	51.7	52.8	53.6	0.0
Edmonton Par	44.9	22.7	23.5	31.9	38.0	41.7	44.7	47.4	49.0	50.4	51.5	1.4
Hardisty Heavy	33.2	10.9	9.6	16.5	22.0	25.5	28.4	31.1	32.5	33.7	34.6	0.4
WCS	35.4	14.0	12.6	19.8	25.6	29.3	32.4	35.2	36.8	38.0	39.0	1.0
Henry Hub	2.6	2.5	2.8	3.2	3.6	4.0	4.3	4.5	4.8	5.0	5.3	7.2
AECO	2.7	2.8	2.9	3.3	3.8	4.1	4.4	4.6	5.0	5.2	5.5	7.3
C\$												
WTI	62.4	37.2	34.9	43.8	50.1	53.9	56.9	59.5	61.1	62.4	63.6	0.2
Brent	68.6	44.4	42.0	50.2	55.9	59.3	61.9	64.3	65.6	66.7	67.6	-0.1
Edmonton Par	57.4	32.1	30.4	39.6	46.1	50.1	53.2	56.1	57.7	59.2	60.5	0.5
Hardisty Heavy	42.4	16.9	15.1	24.0	30.3	34.1	37.1	39.8	41.2	42.5	43.6	0.3
WCS	45.3	21.6	19.9	28.9	35.3	39.2	42.3	45.1	46.6	48.0	49.2	0.8
Henry Hub	3.4	3.9	4.4	4.6	5.0	5.3	5.6	5.7	6.1	6.3	6.6	7.0
AECO	3.5	4.3	4.6	4.8	5.2	5.5	5.8	5.9	6.3	6.5	6.9	7.1
High												
US\$												
WTI	48.8	38.2	50.4	62.4	74.4	86.4	95.2	101.6	105.3	107.9	110.2	8.5
Brent	53.6	42.9	54.9	66.7	78.6	90.4	99.1	105.3	108.9	111.3	113.4	7.8
Edmonton Par	44.9	34.2	46.1	56.7	67.8	78.2	85.7	90.4	92.3	93.4	94.9	7.8
Hardisty Heavy	33.2	23.7	34.7	45.9	57.4	68.9	77.4	83.4	86.7	88.9	91.0	10.6
WCS	35.4	27.1	38.5	50.0	61.7	73.4	82.1	88.3	91.8	94.2	96.3	10.5
Henry Hub	2.6	2.5	2.8	3.2	3.6	4.0	4.3	4.5	4.8	5.0	5.3	7.2
AECO	2.7	2.8	2.9	3.3	3.8	4.1	4.4	4.6	5.0	5.2	5.5	7.3
C\$												
WTI	62.4	53.4	64.0	74.6	86.2	97.7	105.7	110.4	112.2	113.0	114.7	6.3
Brent	68.6	59.9	69.8	79.8	91.1	102.3	110.0	114.4	115.9	116.5	118.0	5.6
Edmonton Par	57.4	48.3	59.5	70.4	82.2	93.9	102.0	106.9	108.8	109.8	111.5	6.9

(continued ...)

Table 1 (cont'd)

Benchmark Energy Prices

(oil prices, \$ per barrel; gas prices, \$ per million BTU)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	CAGR* (%)
Hardisty Heavy	42.4	33.2	44.2	54.9	66.5	78.0	85.9	90.6	92.3	93.1	94.7	8.4
WCS	45.3	37.9	49.0	59.8	71.5	83.1	91.1	95.9	97.7	98.6	100.3	8.3
Henry Hub	3.4	3.5	3.5	3.8	4.2	4.5	4.8	4.9	5.1	5.2	5.5	5.0
AECO	3.5	3.9	3.7	3.9	4.4	4.6	4.9	5.0	5.3	5.4	5.7	5.1

*compound annual growth rate

Source: The Conference Board of Canada.

Table 2

Canadian Oil Production

(thousands of barrels per day)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	CAGR* (%)
Reference (total)	3,895	4,062	4,257	4,516	4,681	4,757	4,857	4,967	5,060	5,160	5,263	3.1
Alberta	3,146	3,287	3,493	3,705	3,856	3,957	4,068	4,184	4,303	4,410	4,502	3.6
Conventional light	418	402	395	400	409	419	424	429	434	439	455	0.8
Conventional heavy	140	136	132	129	128	127	125	123	122	120	123	-1.3
Bitumen	2,588	2,750	2,966	3,176	3,320	3,412	3,519	3,631	3,747	3,851	3,925	4.3
Saskatchewan	504	482	472	467	471	476	477	477	478	480	481	-0.5
Light	184	171	168	167	168	170	171	172	173	175	176	-0.4
Heavy	321	311	304	301	303	306	306	305	305	305	305	-0.5

(continued ...)

Table 2 (cont'd)

Canadian Oil Production

(thousands of barrels per day)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	CAGR* (%)
Newfoundland and Labrador	172	226	228	283	295	267	256	252	226	219	230	2.9
Other provinces	72	66	64	62	59	57	55	54	53	52	51	-3.4
Low (total)	3,895	4,053	4,017	4,064	4,122	4,122	4,148	4,180	4,193	4,195	4,189	0.7
Alberta	3,146	3,283	3,372	3,471	3,554	3,576	3,607	3,630	3,643	3,623	3,578	1.3
Conventional light	418	400	311	241	222	229	236	250	274	300	336	-2.2
Conventional heavy	140	135	104	77	69	69	70	72	77	82	91	-4.2
Bitumen	2,588	2,749	2,957	3,153	3,262	3,277	3,301	3,308	3,292	3,240	3,152	2.0
Saskatchewan	504	479	371	281	256	261	266	278	301	328	355	-3.5
Light	184	170	132	100	91	93	95	100	109	120	130	-3.4
Heavy	321	309	239	181	164	168	170	178	192	209	225	-3.5
Newfoundland and Labrador	172	224	224	275	281	254	244	240	216	209	219	2.4
Other provinces	72	66	50	37	32	31	31	32	33	35	38	-6.3
High (total)	3,895	4,138	4,358	4,644	4,857	4,959	5,153	5,399	5,566	5,736	5,903	4.2
Alberta	3,147	3,324	3,545	3,757	3,947	4,064	4,265	4,508	4,707	4,887	5,059	4.9
Conventional light	418	428	427	449	464	481	489	502	504	506	511	2.0
Conventional heavy	140	144	142	144	145	146	144	144	141	139	138	-0.1
Bitumen	2,589	2,752	2,976	3,164	3,338	3,437	3,632	3,862	4,062	4,242	4,411	5.5
Saskatchewan	504	513	509	524	534	547	550	558	555	553	540	0.7
Light	184	182	181	187	191	195	197	201	201	202	198	0.7
Heavy	321	331	328	337	344	352	353	357	354	352	343	0.7

(continued ...)

Table 2 (cont'd)

Canadian Oil Production

(thousands of barrels per day)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	CAGR* (%)
Newfoundland and Labrador	172	231	235	294	309	282	274	270	243	235	246	3.7
Other provinces	72	71	69	69	67	65	64	63	62	60	57	-2.2

*compound annual growth rate

Source: The Conference Board of Canada.

Table 3

Key Economic Indicators

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	CAGR* (%)
Reference												
Canadian GDP (2007 \$ billions)	1,769	1,799 1.7	1,840 2.3	1,880 2.2	1,919 2.0	1,957 2.0	1,996 2.0	2,040 2.2	2,085 2.2	2,130 2.1	2,177 2.2	2.1
U.S. GDP (2009 US\$ billions)	16,362	16,825 2.8	17,336 3.0	17,795 2.6	18,232 2.5	18,673 2.4	19,137 2.5	19,599 2.4	20,067 2.4	20,553 2.4	21,046 2.4	2.5
Consumer price index (2002 = 100)	126.6	128.6 1.6	131.1 1.9	133.8 2.1	136.7 2.2	139.6 2.1	142.7 2.2	145.8 2.2	149.0 2.2	152.4 2.3	155.8 2.2	2.1
Employment (000s)	17,951	18,105 0.9	18,332 1.3	18,549 1.2	18,760 1.1	18,953 1.0	19,089 0.7	19,202 0.6	19,320 0.6	19,441 0.6	19,549 0.6	0.9
Personal disposable income (2007 \$ billions)	1,001	1,018 1.8	1,042 2.3	1,065 2.2	1,089 2.3	1,116 2.4	1,140 2.2	1,167 2.4	1,195 2.4	1,223 2.4	1,252 2.3	2.3
Bank rate (per cent)	0.9	0.8	1.1	2.0	3.0	3.7	3.7	3.7	3.8	3.9	4.0	3.0**
C\$/US\$ exchange rate	0.783	0.708	0.774	0.805	0.825	0.833	0.841	0.845	0.848	0.851	0.851	0.818**

(continued ...)

Table 3 (cont'd)

Key Economic Indicators

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	CAGR* (%)
Low												
Canadian GDP (2007 \$ billions)	1,769	1,799 1.7	1,833 1.9	1,868 1.9	1,906 2.0	1,947 2.1	1,985 2.0	2,028 2.2	2,072 2.2	2,117 2.2	2,164 2.2	2.0
U.S. GDP (2009 US\$ billions)	16,362	16,879 3.2	17,428 3.3	17,916 2.8	18,364 2.5	18,805 2.4	19,276 2.5	19,760 2.5	20,253 2.5	20,766 2.5	21,283 2.5	2.5
Consumer price index (2002 = 100)	126.6	127.5 0.7	129.2 1.3	131.4 1.7	134.1 2.1	137.1 2.2	140.5 2.5	143.7 2.3	147.1 2.4	150.5 2.3	154.1 2.4	2.0
Employment (000s)	17,951	18,097 0.8	18,290 1.1	18,497 1.1	18,715 1.2	18,931 1.2	19,075 0.8	19,181 0.6	19,292 0.6	19,419 0.7	19,543 0.6	0.9
Personal disposable income (2007 \$ billions)	1,001	1,022 2.2	1,042 2.0	1,059 1.6	1,079 2.0	1,104 2.3	1,127 2.0	1,152 2.2	1,178 2.3	1,206 2.3	1,233 2.3	2.1
Bank rate (per cent)	0.9	0.8	0.6	1.3	2.2	3.2	3.8	3.8	3.8	3.8	3.8	2.7**
C\$/US\$ exchange rate	0.783	0.646	0.637	0.685	0.724	0.746	0.767	0.781	0.789	0.791	0.793	0.736**
High												
Canadian GDP (2007 \$ billions)	1,769	1,802 1.8	1,844 2.4	1,885 2.2	1,929 2.3	1,976 2.4	2,020 2.2	2,071 2.5	2,116 2.2	2,161 2.1	2,207 2.2	2.2
U.S. GDP (2009 US\$ billions)	16,362	16,725 2.2	17,176 2.7	17,589 2.4	18,046 2.6	18,515 2.6	18,978 2.5	19,452 2.5	19,939 2.5	20,432 2.5	20,914 2.4	2.5
Consumer price index (2002 = 100)	126.6	128.8 1.7	131.7 2.3	134.5 2.1	137.6 2.3	140.6 2.2	143.7 2.2	146.8 2.2	149.8 2.0	153.0 2.1	156.4 2.2	2.1
Employment (000s)	17,951	18,111 0.9	18,343 1.3	18,553 1.1	18,788 1.3	19,033 1.3	19,190 0.8	19,327 0.7	19,435 0.6	19,539 0.5	19,636 0.5	0.9

(continued ...)

Table 3 (cont'd)

Key Economic Indicators

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	CAGR* (%)
Personal disposable income (2007 \$ billions)	1,001	1,019 <i>1.8</i>	1,042 <i>2.3</i>	1,065 <i>2.2</i>	1,092 <i>2.5</i>	1,124 <i>2.9</i>	1,152 <i>2.6</i>	1,184 <i>2.8</i>	1,215 <i>2.6</i>	1,247 <i>2.6</i>	1,278 <i>2.5</i>	2.5
Bank rate (per cent)	0.9	0.8	1.4	2.5	3.2	4.0	4.0	4.0	4.0	4.0	4.0	3.2**
C\$/US\$ exchange rate	0.783	0.716	0.787	0.836	0.862	0.884	0.901	0.92	0.939	0.955	0.961	0.876**

*compound annual growth rate

**10-year average

Note: Italics indicate percentage change.

Source: The Conference Board of Canada.

Table 4

International Trade

(2007 \$ billions)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	CAGR* (%)
Reference												
Total exports	571	585 <i>2.6</i>	607 <i>3.8</i>	626 <i>3.0</i>	643 <i>2.8</i>	661 <i>2.8</i>	680 <i>2.8</i>	700 <i>2.9</i>	720 <i>2.8</i>	739 <i>2.7</i>	759 <i>2.6</i>	2.9
Oil exports	68	70 <i>1.7</i>	72 <i>3.3</i>	76 <i>5.0</i>	77 <i>2.3</i>	79 <i>2.6</i>	82 <i>3.3</i>	85 <i>3.3</i>	87 <i>3.0</i>	90 <i>2.9</i>	92 <i>2.8</i>	3.0
Non-oil merchandise exports	419	431 <i>2.8</i>	448 <i>4.0</i>	461 <i>2.8</i>	475 <i>3.0</i>	489 <i>2.9</i>	503 <i>2.9</i>	518 <i>3.0</i>	533 <i>2.9</i>	548 <i>2.8</i>	563 <i>2.7</i>	3.0
Service exports	84	86 <i>2.0</i>	88 <i>2.9</i>	91 <i>2.5</i>	93 <i>2.5</i>	95 <i>2.5</i>	97 <i>2.3</i>	100 <i>2.2</i>	102 <i>2.2</i>	104 <i>2.1</i>	106 <i>2.2</i>	2.3
Imports	575	579 <i>0.8</i>	595 <i>2.8</i>	611 <i>2.6</i>	627 <i>2.6</i>	641 <i>2.3</i>	655 <i>2.1</i>	669 <i>2.2</i>	684 <i>2.2</i>	699 <i>2.2</i>	715 <i>2.3</i>	2.2

(continued ...)

FINDING OUR BALANCE
How Changes in Oil Prices Impact Canada's Economy

Table 4 (cont'd)
International Trade
(2007 \$ billions)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	CAGR* (%)
Low												
Total exports	571	586	608	627	648	668	687	707	726	745	764	3.0
		<i>2.7</i>	<i>3.8</i>	<i>3.1</i>	<i>3.3</i>	<i>3.1</i>	<i>2.9</i>	<i>2.8</i>	<i>2.7</i>	<i>2.6</i>	<i>2.5</i>	
Oil exports	68	69	66	66	65	66	66	67	68	67	67	-0.2
		<i>0.4</i>	<i>-3.7</i>	<i>-0.9</i>	<i>-0.3</i>	<i>0.3</i>	<i>1.2</i>	<i>1.1</i>	<i>0.6</i>	<i>-0.2</i>	<i>-0.9</i>	
Non-oil merchandise exports	419	432	454	471	489	507	523	540	557	573	591	3.5
		<i>3.1</i>	<i>5.1</i>	<i>3.8</i>	<i>3.9</i>	<i>3.6</i>	<i>3.2</i>	<i>3.2</i>	<i>3.1</i>	<i>3.0</i>	<i>3.0</i>	
Service exports	84	86	89	92	94	97	99	101	104	106	108	2.5
		<i>2.6</i>	<i>3.3</i>	<i>2.6</i>	<i>2.7</i>	<i>2.7</i>	<i>2.6</i>	<i>2.3</i>	<i>2.3</i>	<i>2.1</i>	<i>2.2</i>	
Imports	575	574	580	594	613	628	642	657	672	687	703	2.0
		<i>0.0</i>	<i>0.9</i>	<i>2.4</i>	<i>3.1</i>	<i>2.6</i>	<i>2.2</i>	<i>2.3</i>	<i>2.2</i>	<i>2.3</i>	<i>2.3</i>	
High												
Total exports	571	584	607	624	643	659	675	693	712	730	748	2.7
		<i>2.4</i>	<i>3.8</i>	<i>2.9</i>	<i>3.0</i>	<i>2.6</i>	<i>2.3</i>	<i>2.8</i>	<i>2.7</i>	<i>2.5</i>	<i>2.5</i>	
Oil exports	68	70	73	77	79	82	87	93	97	101	105	4.4
		<i>2.6</i>	<i>3.7</i>	<i>5.3</i>	<i>3.5</i>	<i>3.2</i>	<i>5.8</i>	<i>6.9</i>	<i>4.7</i>	<i>4.3</i>	<i>4.2</i>	
Non-oil merchandise exports	419	429	447	459	473	485	494	506	518	530	542	2.6
		<i>2.4</i>	<i>4.1</i>	<i>2.7</i>	<i>3.1</i>	<i>2.6</i>	<i>1.9</i>	<i>2.3</i>	<i>2.4</i>	<i>2.3</i>	<i>2.3</i>	
Service exports	84	86	88	90	92	94	95	97	99	100	102	2.0
		<i>1.9</i>	<i>2.7</i>	<i>2.2</i>	<i>2.2</i>	<i>2.0</i>	<i>1.3</i>	<i>1.6</i>	<i>2.0</i>	<i>1.9</i>	<i>2.0</i>	
Imports	575	580	598	616	634	651	668	686	701	716	730	2.4
		<i>0.9</i>	<i>3.1</i>	<i>3.1</i>	<i>2.9</i>	<i>2.8</i>	<i>2.6</i>	<i>2.6</i>	<i>2.2</i>	<i>2.1</i>	<i>2.0</i>	

*compound annual growth rate

Note: Italics indicate percentage change.

Source: The Conference Board of Canada.

Table 5
Business Investment Indicators
(\$ billions)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	CAGR* (%)
Reference												
Before-tax profits	124.8	113.0	127.8	147.5	164.0	172.8	184.7	201.5	217.4	233.6	253.7	7.4
		-9.5	13.1	15.4	11.2	5.3	6.9	9.1	7.9	7.5	8.6	
Business investment	327.3	323.8	332.7	343.9	354.2	362.3	366.9	374.0	382.3	390.8	401.0	2.1
		-1.1	2.8	3.3	3.0	2.3	1.3	1.9	2.2	2.2	2.6	
Oil and gas investment	37.2	31.7	32.7	34.5	36.7	40.5	42.5	44.3	46.3	47.7	48.9	2.8
		-14.7	3.2	5.2	6.5	10.4	5.0	4.2	4.5	2.9	2.5	
Pipeline investment	3.8	4.9	9.3	12.1	13.2	10.4	7.5	6.8	6.6	6.4	7.1	6.5
		28.9	92.5	29.5	8.8	-21.3	-27.3	-9.8	-3.2	-2.9	11.0	
Other investment	286.3	287.2	290.7	297.3	304.4	311.4	316.8	322.8	329.4	336.8	345.1	1.9
		0.3	1.2	2.3	2.4	2.3	1.7	1.9	2.0	2.2	2.5	
Low												
Before-tax profits	124.8	95.0	92.5	120.2	139.3	153.8	166.1	177.1	187.9	197.8	208.5	5.3
		-23.8	-2.6	29.8	16.0	10.4	8.0	6.6	6.1	5.2	5.4	
Business investment	327.3	318.6	311.5	316.8	328.2	339.2	346.4	355.2	365.0	376.5	389.6	1.8
		-2.7	-2.2	1.7	3.6	3.3	2.1	2.5	2.8	3.1	3.5	
Oil and gas investment	37.2	29.8	21.8	19.0	18.9	21.0	21.6	23.0	24.9	28.2	32.5	-1.3
		-19.8	-26.9	-12.9	-0.3	10.7	3.3	6.2	8.1	13.4	15.2	
Pipeline investment	3.8	3.9	6.4	7.9	9.3	8.7	5.9	5.4	5.4	5.3	5.4	3.6
		2.7	66.6	23.3	16.5	-6.3	-32.3	-7.5	-0.3	-2.5	1.3	
Other investment	286.3	284.9	283.2	289.9	300.0	309.6	318.9	326.7	334.7	343.0	351.8	2.1
		-0.5	-0.6	2.4	3.5	3.2	3.0	2.5	2.5	2.5	2.6	

(continued ...)

Table 5 (cont'd)

Business Investment Indicators

(\$ billions)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	CAGR* (%)
High												
Before-tax profits	124.8	120.9 <i>-3.1</i>	142.3 <i>17.6</i>	173.4 <i>21.9</i>	196.9 <i>13.6</i>	216.0 <i>9.7</i>	231.3 <i>7.1</i>	252.0 <i>9.0</i>	266.7 <i>5.8</i>	281.3 <i>5.5</i>	297.7 <i>5.8</i>	9.1
Business investment	327.3	327.5 <i>0.1</i>	339.6 <i>3.7</i>	354.6 <i>4.4</i>	369.9 <i>4.3</i>	388.0 <i>4.9</i>	400.9 <i>3.3</i>	413.2 <i>3.1</i>	419.4 <i>1.5</i>	424.5 <i>1.2</i>	430.1 <i>1.3</i>	2.8
Oil and gas investment	37.2	34.3 <i>-7.9</i>	38.0 <i>10.8</i>	42.4 <i>11.8</i>	48.7 <i>14.8</i>	59.2 <i>21.6</i>	66.4 <i>12.1</i>	72.1 <i>8.7</i>	74.4 <i>3.1</i>	74.8 <i>0.6</i>	75.1 <i>0.3</i>	7.3
Pipeline investment	3.8	5.0 <i>33.2</i>	9.5 <i>89.4</i>	12.3 <i>29.4</i>	13.4 <i>8.8</i>	11.3 <i>-15.9</i>	9.1 <i>-19.4</i>	8.2 <i>-10.1</i>	7.1 <i>-12.8</i>	7.1 <i>-0.2</i>	7.9 <i>10.5</i>	7.6
Other investment	286.3	288.2 <i>0.7</i>	292.1 <i>1.4</i>	299.9 <i>2.7</i>	307.8 <i>2.6</i>	317.6 <i>3.2</i>	325.5 <i>2.5</i>	332.9 <i>2.3</i>	337.9 <i>1.5</i>	342.5 <i>1.4</i>	347.2 <i>1.3</i>	1.9

*compound annual growth rate

Note: Italics indicate percentage change.

Source: The Conference Board of Canada.

Table 6

Fiscal Impacts

(\$ billions)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	CAGR* (%)
Reference												
Total Federal	278.3	285.4	294.5	307.7	321.5	335.2	348.7	363.3	378.5	394.3	411.5	4.0
Federal personal income taxes	137.8	142.5	148.5	155.2	162.6	170.3	177.7	185.6	193.9	202.6	211.8	4.4
Federal corporate income taxes	38.2	37.2	39.6	42.7	45.3	47.5	50.0	52.8	55.7	58.7	62.5	5.0

(continued ...)

Table 6 (cont'd)

Fiscal Impacts

(\$ billions)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	CAGR* (%)
Federal other taxes	102.3	105.7	106.4	109.8	113.6	117.4	121.0	124.9	128.9	133.0	137.2	3.0
Total Provincial	403.3	415.2	431.6	448.8	466.7	484.6	503.2	523.0	543.6	564.9	587.2	3.8
Provincial personal income taxes	93.9	98.3	102.9	107.7	112.9	118.3	123.4	128.9	134.7	140.7	147.1	4.6
Provincial corporate income taxes	24.2	23.7	25.3	27.4	29.1	30.5	32.5	35.0	37.5	40.1	43.3	6.0
Provincial other taxes	273.9	284.2	293.6	302.8	312.3	322.0	332.0	342.3	353.1	364.4	375.9	3.2
Royalties (incl. non-oil)	11.3	9.0	9.8	10.9	12.4	13.8	15.3	16.8	18.3	19.7	20.9	6.3
Low												
Total Federal	278.3	283.6	289.1	301.0	313.9	327.8	341.4	355.7	370.6	386.4	403.2	3.8
Federal personal income taxes	137.8	142.4	147.9	153.7	160.6	168.1	175.3	183.2	191.7	200.7	210.3	4.3
Federal corporate income taxes	38.2	35.2	34.5	37.3	39.9	42.6	45.4	48.1	50.6	53.2	55.9	3.9
Federal other taxes	102.3	106.0	106.7	110.0	113.4	117.1	120.7	124.4	128.3	132.5	137.0	3.0
Total Provincial	403.3	412.2	425.6	441.9	459.4	474.5	491.8	510.4	531.5	553.2	575.2	3.6
Provincial personal income taxes	93.9	98.2	102.3	106.8	112.0	117.4	122.4	127.8	133.5	139.6	146.2	4.5
Provincial corporate income taxes	24.2	22.5	22.9	24.6	26.5	26.1	27.9	30.5	34.0	37.5	40.7	5.3
Provincial other taxes	273.9	284.5	293.9	303.0	312.5	322.3	332.4	342.6	353.4	364.7	376.2	3.2
Royalties (incl. non-oil)	11.3	7.0	6.5	7.5	8.5	8.7	9.1	9.5	10.7	11.4	12.1	0.7
High												
Total Federal	278.3	286.4	296.5	311.2	326.5	342.5	357.5	373.4	388.8	404.4	421.1	4.2
Federal personal income taxes	137.8	142.6	148.8	155.5	163.4	172.0	179.9	188.4	196.8	205.5	214.6	4.5

(continued ...)

Table 6 (cont'd)

Fiscal Impacts

(\$ billions)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	CAGR* (%)
Federal corporate income taxes	38.2	38.1	41.3	45.7	49.3	52.8	55.9	59.4	62.4	65.3	68.7	6.0
Federal other taxes	102.3	105.7	106.4	110.0	113.8	117.7	121.7	125.6	129.6	133.6	137.8	3.0
Total Provincial	403.3	416.0	433.5	452.8	473.1	494.4	515.3	536.9	558.3	579.3	602.1	4.1
Provincial personal income taxes	93.9	98.4	103.1	107.9	113.3	119.1	124.4	130.2	136.0	141.9	148.3	4.7
Provincial corporate income taxes	24.2	24.3	26.5	29.6	32.0	34.4	36.8	39.8	42.3	44.9	47.8	7.0
Provincial other taxes	273.9	284.1	293.2	302.2	311.8	321.7	331.9	342.6	353.5	365.0	376.6	3.2
Royalties (incl. non-oil)	11.3	9.3	10.7	13.1	16.0	19.2	22.2	24.4	26.5	27.5	29.4	10.0

*compound annual growth rate

Source: The Conference Board of Canada.

Table 7

Provincial GDP

(2007 \$ billions)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	CAGR* (%)
Reference												
Canada	1,645	1,671	1,711	1,749	1,786	1,823	1,860	1,900	1,942	1,984	2,027	2.1
British Columbia	208	214	221	228	235	240	245	251	258	264	270	2.6
Alberta	299	295	301	309	316	326	334	342	351	360	368	2.1
Saskatchewan	58	58	60	61	62	63	64	65	66	67	68	1.7
Manitoba	55	56	58	58	59	60	61	62	64	65	67	2.0
Ontario	615	630	645	659	672	687	702	718	734	751	769	2.3

(continued ...)

Table 7 (cont'd)

Provincial GDP

(2007 \$ billions)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	CAGR* (%)
Quebec	314	320	326	332	338	344	349	355	361	367	373	1.7
New Brunswick	26	27	27	28	28	29	29	29	30	30	31	1.5
Prince Edward Island	5	5	5	5	5	5	5	5	5	5	5	1.4
Nova Scotia	33	33	34	35	35	35	36	36	37	37	38	1.5
Newfoundland and Labrador	25	25	25	26	26	26	26	26	26	26	27	1.0
Low												
Canada	1,645	1,671	1,704	1,738	1,774	1,813	1,848	1,887	1,928	1,970	2,014	2.0
British Columbia	208	214	222	229	235	241	246	252	259	264	270	2.6
Alberta	299	293	288	289	293	300	307	313	322	332	342	1.4
Saskatchewan	58	58	60	60	61	62	63	64	66	67	68	1.6
Manitoba	55	56	58	59	60	61	62	63	65	66	67	2.1
Ontario	615	631	648	663	679	696	711	727	743	759	777	2.4
Quebec	314	320	328	335	342	348	354	360	366	372	377	1.9
New Brunswick	26	27	27	28	29	29	29	30	30	31	31	1.6
Prince Edward Island	5	5	5	5	5	5	5	5	5	5	5	1.5
Nova Scotia	33	33	34	35	35	36	36	37	37	38	38	1.6
Newfoundland and Labrador	25	25	25	26	26	25	26	26	26	26	27	0.7

(continued ...)

Table 7 (cont'd)
Provincial GDP
(2007 \$ billions)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	CAGR* (%)
High												
Canada	1,645	1,673	1,715	1,754	1,796	1,841	1,882	1,928	1,971	2,012	2,056	2.3
British Columbia	208	214	221	228	235	241	246	253	260	266	272	2.7
Alberta	299	298	306	316	327	342	355	368	378	388	396	2.9
Saskatchewan	58	58	60	61	62	63	64	66	67	68	69	1.8
Manitoba	55	56	57	58	59	60	61	62	64	65	67	2.0
Ontario	615	630	644	657	671	687	702	718	733	750	768	2.2
Quebec	314	320	326	331	337	343	348	354	360	366	371	1.7
New Brunswick	26	27	27	28	28	29	29	29	30	30	31	1.5
Prince Edward Island	5	5	5	5	5	5	5	5	5	5	5	1.4
Nova Scotia	33	33	34	34	35	35	36	36	37	37	38	1.5
Newfoundland and Labrador	25	25	25	26	27	26	27	27	27	27	28	1.3

*compound annual growth rate
Source: The Conference Board of Canada.

Table 8
Provincial Employment
 (000s)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	CAGR* (%)
Reference												
Canada	17,950.5	18,105.1	18,331.6	18,549.4	18,760.0	18,952.5	19,088.5	19,202.1	19,319.9	19,441.1	19,549.2	0.9
British Columbia	2,308.1	2,358.8	2,414.9	2,463.2	2,499.9	2,532.1	2,549.4	2,563.4	2,574.0	2,581.3	2,589.7	1.2
Alberta	2,301.8	2,273.4	2,279.1	2,314.5	2,359.1	2,398.3	2,427.9	2,454.7	2,483.3	2,508.9	2,532.8	1.0
Saskatchewan	573.8	574.7	579.1	581.7	583.5	586.2	591.9	597.5	603.3	607.3	612.4	0.7
Manitoba	636.4	642.7	653.9	661.1	666.4	669.2	675.5	680.9	686.4	692.1	697.4	0.9
Ontario	6,923.9	7,008.0	7,103.0	7,176.0	7,261.6	7,353.8	7,425.6	7,482.9	7,544.3	7,623.8	7,687.9	1.1
Quebec	4,097.4	4,138.2	4,187.6	4,233.0	4,264.3	4,287.4	4,293.9	4,300.1	4,307.0	4,313.5	4,322.7	0.5
New Brunswick	352.1	351.4	352.2	356.7	359.5	360.9	361.1	360.6	360.4	359.6	358.0	0.2
Prince Edward Island	73.2	73.9	74.5	75.1	75.4	75.4	75.4	75.4	75.4	75.3	75.1	0.3
Nova Scotia	448.0	449.9	453.5	455.6	457.4	458.6	458.1	457.0	456.2	452.9	449.2	0.0
Newfoundland and Labrador	236.0	234.2	233.6	232.5	232.8	230.6	229.7	229.7	229.5	226.3	223.7	-0.5
Low												
Canada	17,950.5	18,097.4	18,289.7	18,496.7	18,714.8	18,931.1	19,075.3	19,181.1	19,292.3	19,418.6	19,542.6	0.9
British Columbia	2,308.1	2,359.8	2,420.8	2,471.8	2,511.8	2,549.5	2,569.3	2,582.2	2,591.3	2,595.9	2,601.7	1.2
Alberta	2,301.8	2,259.0	2,194.2	2,193.3	2,220.0	2,246.4	2,267.7	2,292.1	2,320.9	2,362.6	2,411.6	0.5
Saskatchewan	573.8	573.7	574.6	576.0	577.5	580.4	584.3	588.5	593.1	596.4	600.7	0.5
Manitoba	636.4	643.2	656.5	665.1	671.7	676.0	683.3	688.5	693.9	699.2	704.2	1.0
Ontario	6,923.9	7,011.9	7,126.0	7,212.8	7,311.5	7,421.8	7,503.3	7,559.4	7,618.9	7,695.0	7,756.6	1.1

(continued ...)

Table 8 (cont'd)

Provincial Employment

(000s)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	CAGR* (%)
Quebec	4,097.4	4,140.8	4,202.4	4,256.6	4,295.7	4,328.5	4,340.0	4,345.1	4,350.5	4,354.4	4,361.9	0.6
New Brunswick	352.1	351.6	353.3	358.3	361.5	363.8	364.3	363.7	363.3	362.1	360.1	0.2
Prince Edward Island	73.2	73.9	74.8	75.4	75.9	76.1	76.1	76.1	76.1	75.9	75.7	0.3
Nova Scotia	448.0	450.1	454.9	457.5	460.0	462.1	462.2	460.8	459.9	456.2	452.2	0.1
Newfoundland and Labrador	236.0	233.4	232.3	230.0	229.3	226.6	224.8	224.6	224.3	220.8	217.7	-0.8
High												
Canada	17,950.5	18,111.7	18,346.5	18,560.3	18,797.5	19,047.7	19,233.0	19,388.6	19,508.2	19,625.0	19,732.2	1.0
British Columbia	2,308.1	2,356.5	2,409.8	2,454.5	2,490.8	2,524.5	2,545.9	2,563.6	2,574.4	2,581.3	2,589.3	1.2
Alberta	2,301.8	2,296.0	2,326.1	2,380.9	2,453.5	2,539.6	2,595.6	2,644.5	2,673.1	2,694.6	2,717.9	1.7
Saskatchewan	573.8	574.2	578.7	582.3	585.4	589.7	597.5	605.0	612.0	616.4	621.4	0.8
Manitoba	636.4	641.9	652.5	658.6	663.8	666.9	674.1	680.2	685.8	691.2	696.3	0.9
Ontario	6,923.9	7,000.3	7,088.5	7,150.4	7,235.1	7,332.5	7,414.3	7,479.9	7,541.6	7,619.3	7,682.3	1.0
Quebec	4,097.4	4,133.5	4,178.7	4,217.0	4,247.5	4,272.5	4,283.1	4,292.8	4,299.6	4,304.9	4,313.8	0.5
New Brunswick	352.1	351.0	351.4	355.3	358.0	359.5	360.2	360.2	360.1	359.2	357.5	0.2
Prince Edward Island	73.2	73.8	74.3	74.8	75.1	75.1	75.2	75.3	75.3	75.2	75.0	0.2
Nova Scotia	448.0	449.5	452.5	453.9	455.7	457.1	457.4	456.9	456.2	452.8	449.0	0.0
Newfoundland and Labrador	236.0	235.1	234.0	232.5	232.6	230.3	229.7	230.1	230.0	230.0	229.3	-0.3

*compound annual growth rate

Source: The Conference Board of Canada.



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