

# \$15 billion and 57,000 jobs: The impact of oil and gas (and Alberta) on BC's economy

Canadian Energy Centre

## Overview

Canada's oil and natural gas sector has a positive impact on many sectors of the Canadian economy, not only in Alberta and Saskatchewan where the industry is a relatively large proportion of the economy, but across the country. The economies of all the provinces, especially Ontario, Quebec, British Columbia, and Atlantic Canada, benefit economically from Canada's oil and gas sector, particularly when it is healthy, but even in "slump" years such as 2016 when oil and gas prices were relatively depressed.

The impact of the oil and gas sector on other provinces' GDP, jobs, output, exports, and other key economic sectors is not well-known, but is no less relevant to current discussions about the performance of the oil and gas sector.

In this CEC Fact Sheet, we examine the impact that the oil and gas sector has had on British Columbia's economy. Two points to note:

- First, the analysis presented here includes not only the direct impact of Canada's oil and gas sector on BC's economy in nominal GDP, output, jobs and exports, but the indirect impact that such activities have on other sectors in the province.
- Second, given that the largest proportion of oil and gas activity in Canada occurs in Alberta, we also profile the impact of Alberta's purchases on various sectors of BC's economy. For this measurement, we look at 2016 in isolation (the latest year for which these data are available) as well as the total from 2012 to 2016. We also show the significant role Alberta plays in BC's interprovincial and international trade flows.

## Analysis One: The impact of the oil and gas sector on British Columbia's economy

Using customized data from Statistics Canada<sup>1</sup> (see Table 1), in 2016 the oil and gas sector

- was responsible for adding nearly \$7.7 billion in nominal GDP to the BC economy;
- generated nearly \$15.3 billion in outputs, consisting primarily of the value of goods and services produced by various sectors in the BC economy;
- supported nearly 57,000 jobs, directly and indirectly, in BC's economy;
- paid over \$2.3 billion in wages and salaries to workers in BC.

Table 1

### The oil and gas sector's impact on BC's economy

2016

	Output	GDP	Jobs
	\$ billions		#
Direct impact	8.9	4.1	20,748
Indirect impact	6.4	3.6	35,948
<b>Total impact</b>	<b>15.3</b>	<b>7.7</b>	<b>56,696</b>

Source: Derived from Statistics Canada, Supply and Use tables, custom tabulation.

## The \$5 billion impact from oil and gas on key BC industries

To examine the impact of the oil and gas sector on BC's economy in more detail, consider that in 2016 the oil and gas sector purchased \$5 billion worth of goods and services from other sectors in BC. The \$5 billion in purchases of goods and services included

- \$620 million from professional services;
- \$640 million from BC's finance and insurance sector; and
- \$2.4 billion from BC's manufacturing sector.

<sup>1</sup> For a discussion of Statistics Canada's use of Input/Output models and equilibrium models, see the addendum in [Fact Sheet #17](#). The latest available year for the customized data from Statistics Canada is 2016.

## Analysis Two: The value of Alberta's purchases from BC

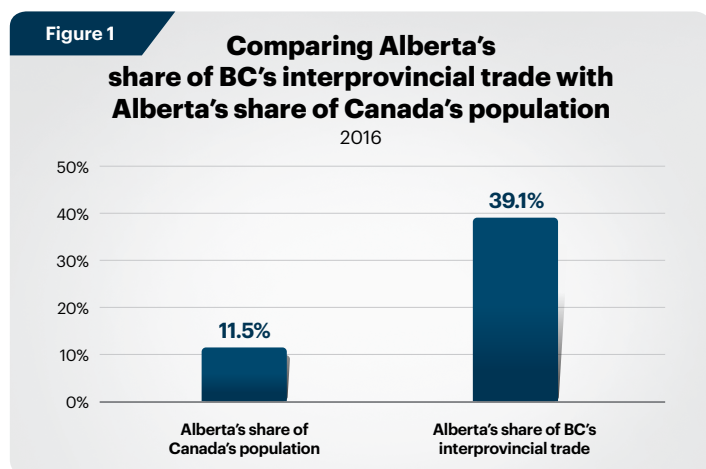
Given that the largest proportion of oil and gas activity in Canada occurs in Alberta, we have expanded the analysis to include all purchases by Alberta's consumers, businesses, and governments of British Columbia's goods and services—that is, we measure the value of Alberta's interprovincial trade with BC.

## The impact of Alberta's purchases on BC's interprovincial trade in 2016: \$15.3 billion

Albertans spent a substantial amount on British Columbia's goods and services in 2016. The purchases include relatively small amounts (\$30 million on utilities) to \$690 million in finance and insurance services, to \$1 billion in food and accommodation, \$2 billion from mines and from oil and gas extraction, and nearly \$3.3 billion from BC manufacturers. In total in 2016, interprovincial exports from BC to Alberta were worth \$15.3 billion (see Addendum).

As a proportion of BC's interprovincial exports from various industries, Alberta's purchases accounted for 15% of BC's cultural sector to 36% of its manufacturing sector and 72% of its mining, oil, and natural gas sector.

Across all the interprovincial exports from BC's sectors, an average of 39.1% of purchases was made by Alberta-based consumers, businesses, and governments. That was significantly higher than Alberta's proportion of Canada's population at 11.5% (see Figure 1).



Sources: Statistics Canada, Table 12-10-0088-01; 2016 Census.

Alberta is BC's biggest market for interprovincial trade (see Table 2 and Addendum). In 2016, BC's trade with Alberta was worth \$15.4 billion, or 39.1% of all of British Columbia's interprovincial trade. Ontario came second at \$13.5 billion (34.2%) and Quebec third at \$4.4 billion (11.1%).

**Table 2**

**BC's total interprovincial trade in goods and services, by province or territories**

2016

	\$ billions	% of all BC interprovincial trade
<b>AB</b>	<b>15.4</b>	<b>39.1%</b>
ON	13.5	34.2%
QC	4.4	11.1%
SK	2.0	5.1%
MB	1.6	4.0%
Territories	1.0	2.5%
NS	0.7	1.8%
NB	0.5	1.2%
NF	0.3	0.8%
PE	0.1	0.3%
<b>Total</b>	<b>39.4</b>	<b>100.0%</b>

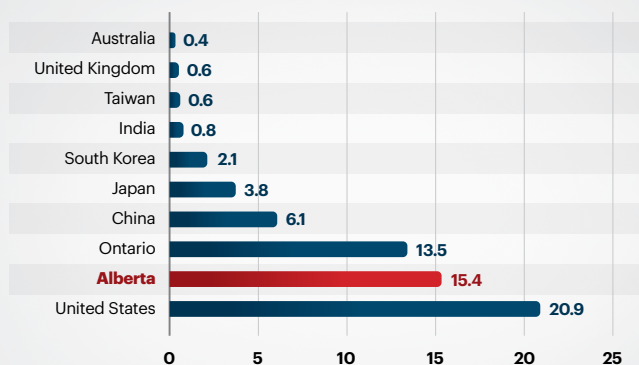
Source: Statistics Canada, Table 12-10-0088-01.

## Alberta is British Columbia's second largest export market after the United States

A look at BC's international and interprovincial trade exports shows that at \$15.4 billion in 2016, BC's trade with Alberta was second behind only the United States (nearly \$21 billion) and ahead of all other markets including Ontario (\$13.5 billion), China (\$6.1 billion), Japan (\$3.8 billion), and South Korea (\$2.1 billion) (see Figure 2).

Figure 2

**International and interprovincial exports from British Columbia, 2016—Top 10 destinations**  
\$ billions



Source: Government of Canada, trade data online and authors' calculation derived from Supply and Use tables, Statistics Canada catalogue 15-602-X.

Table 3

**BC's interprovincial exports to Alberta**  
2012 to 2016

Top 10 industries	\$, billions
Mineral fuels	11.3
Transportation and related services	9.2
Professional services	7.4
Wholesale margins and commissions	5.4
Administrative and support, head office, waste management, remediation	5.1
Accommodation and food services	5.0
Food and non-alcoholic beverages	4.5
Other finance and insurance	2.3
Wood products	2.3
Real estate, rental, leasing, other	1.7

Source: Authors' calculations from Statistic Canada Supply and Use tables (various years).

**Alberta's 2012-2016 impact on British Columbia's interprovincial exports: \$81 billion**

Residents and local businesses from other provinces benefit when they supply Alberta with labour, goods, services, and technology. Between 2012 and 2016, Alberta imported nearly \$81 billion worth of goods and services from British Columbia. Among others, this included \$2.3 billion in wood products, \$5.0 billion in accommodation and food services, and \$11.3 billion in mineral fuels (see Table 3 for the top 10 industries).

**The takeaway**

The oil and gas sector in Canada has a significant impact on BC's export sectors, both direct and indirect, as does the purchase of goods and services by citizens, businesses, and governments in the province where the sector is concentrated, i.e., Alberta. The oil and gas sector provides substantial economic benefits to BC in terms of GDP, jobs, output, and exports. In 2016 alone, the economic benefits included \$7.7 billion in nominal GDP, \$15.3 billion in outputs in the BC economy, 57,000 jobs, and over \$2.3 billion in wages and salaries to workers in the province.

**Addendum**

**Alberta's impact on selected BC industries (outputs)**

2016

Sector	Total BC interprovincial trade	BC's trade with Alberta	Alberta's share of BC's interprovincial trade, by sector
	In \$, billions		%
Manufacturing	8.99	3.26	36%
Mining, quarrying, and oil and gas extraction	3.00	2.16	72%
Transportation and warehousing	5.67	1.88	33%
Professional services (includes software and research and development)	4.31	1.74	40%
Wholesale & retail trade	3.22	1.30	41%
Accommodation and food services	2.71	1.06	39%
Agriculture, forestry, fishing and hunting	1.58	1.00	63%
Finance and insurance	2.53	0.69	27%
Administrative and support, head office, waste management and remediation services	1.25	0.53	42%
Real estate and rental and leasing	0.91	0.43	47%

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**Addendum — Continued**

Sector	In \$, billions		%
Information and cultural industries	2.50	0.37	15%
Management of companies and enterprises	0.67	0.30	45%
Arts, entertainment and recreation services	0.78	0.23	29%
Other services	0.91	0.22	24%
Health and social assistance services	0.17	0.12	69%
Education services	0.15	0.06	42%
Utilities	0.03	0.03	100%

Source: Derived from Statistics Canada, Supply and Use tables, custom tabulation.

## Notes

This CEC Fact Sheet was compiled by Ven Venkatachalam and Mark Milke at the Canadian Energy Centre ([www.canadianenergycentre.ca](http://www.canadianenergycentre.ca)). The authors and the Canadian Energy Centre would like to thank and acknowledge the assistance of Philip Cross in reviewing the data and research for this Fact Sheet. Image credits: "Lion's Gate Bridge" by [James Wheeler](#) from Pixabay,

## Sources (Links live as of October 27, 2020)

American Petroleum Institute (July 2017), *Impact of the Natural Gas and Oil Industry on the US Economy in 2015* <<https://bit.ly/2EKrJTT>>; Government of Canada, Trade Data Online (July 2020) <<https://bit.ly/2EMswnj>>; Statistics Canada (2019a), Supply and Use tables, 2016: 15-602-X-2016 <<https://bit.ly/3mJdGiB>>; Statistics Canada (2019b), Supply and Use tables, custom tabulation; Statistics Canada (2020), Population and Dwelling Count Highlight tables, 2016 Census <<https://bit.ly/36v2WP8>>.

## Definitions

The **oil and gas sector** is defined as the sum of oil and gas extraction and oil and gas investment. Oil and gas extraction is defined by NAICS subsector 211. It comprises establishments primarily engaged in operating oil and gas field properties. Such activities may include exploration for crude petroleum and natural gas, drilling, completing, and equipping wells, and all other activities in the preparation of oil and gas up to the point of shipment from the producing property. This subsector includes the production of oil, the mining and extraction of oil from oil shale and oil sands, and the production of gas and hydrocarbon liquids through gasification. Oil and gas investment includes capital expenditures on construction, machinery, and equipment and exploration by the oil and gas extraction industry. **GDP**, also referred to as gross value added at basic prices, is the sum of the market values, or prices, of all final goods and services produced in an economy. **Output** consists primarily of the value of goods and services produced by an industry. Jobs include employee jobs (full-time, part-time, and seasonal) and self-employed jobs. The **direct impact** of oil and gas extraction is the effects directly attributed to the industry's production. The direct impact of oil and gas investment is the deliveries by domestic industries to satisfy capital expenditures by the oil and gas extraction industry. The direct impact is measured in GDP, output, and jobs within the oil and gas sector. The indirect impact covers upstream economic activities associated with supplying intermediate inputs (the current expenditures on goods and services used in the production process) to the directly affected industries. The **indirect impact** is measured in GDP, output, and jobs through the supply chain of the oil and gas sector, including other key sectors of the BC economy. We use the American Petroleum Institute definition of the oil and natural gas sector to quantify the goods and services purchased by the sector and the wages paid by the sector. The sector includes conventional oil and gas extraction and non-conventional oil extraction. Support activities for oil and gas extraction include oil and gas engineering construction, petroleum refineries, petroleum and coal product manufacturing (except petroleum refineries), petroleum product wholesaler-distributors, gasoline stations, crude oil and other pipeline transportation, and pipeline transportation of natural gas.

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