Catalogue no. 13-605-X
ISSN 1705-9658

Latest Developments in the Canadian Economic Accounts

Canada's external trade classified by Broad Economic Categories

Release date: January 31, 2018

Statistics Canada Statistique Canada

Canada

How to obtain more information

For information about this product or the wide range of services and data available from Statistics Canada, visit our website, www.statcan.gc.ca.

You can also contact us by

email at STATCAN.infostats-infostats.STATCAN@canada.ca

telephone, from Monday to Friday, 8:30 a.m. to 4:30 p.m., at the following numbers:

- Statistical Information Service 1-800-263-1136
- National telecommunications device for the hearing impaired 1-800-363-7629
- Fax line 1-514-283-9350

Depository Services Program

- Inquiries line 1-800-635-7943
- Fax line 1-800-565-7757

Standards of service to the public

Statistics Canada is committed to serving its clients in a prompt, reliable and courteous manner. To this end, Statistics Canada has developed standards of service that its employees observe. To obtain a copy of these service standards, please contact Statistics Canada toll-free at 1-800-263-1136. The service standards are also published on www.statcan.gc.ca under "Contact us" > "Standards of service to the public."

Note of appreciation

Canada owes the success of its statistical system to a long-standing partnership between Statistics Canada, the citizens of Canada, its businesses, governments and other institutions. Accurate and timely statistical information could not be produced without their continued co-operation and goodwill.

Canada's external trade classified by Broad Economic Categories

Introduction

This study presents Canadian international trade data aggregated according to the classification by Broad Economic Categories (BEC). The BEC classification provides users with a new perspective on Canada's imports and exports. A key feature of the BEC classification is an end-use aggregation structure that is consistent with the three basic classes of goods in the System of National Accounts (SNA), namely, capital goods, intermediate goods and consumption goods. This aggregation structure facilitates the analysis of external trade statistics with other economic data such as industry statistics and national economic account aggregates such as gross domestic product. Imports and exports classified by BEC provide insight into the role of imports and exports as inputs into production, as a source of capital and as a source of goods for final consumption. The focus of this paper will be an analysis of Canada's external trade according to these SNA classes of goods.

The paper is organised as follows. Section 2 presents the United Nations BEC Classification[1] including a detailed description of categories at level 1 and subcategories at levels 2 and 3, and shows the correspondence of BEC categories to the three basic classes of goods in the SNA. Section 3 presents Canadian imports and exports classified by BEC including a brief analysis of the trends in shares of BEC categories for total imports and exports. Section 4 presents analysis of Canadian trade patterns in intermediate goods. Section 5 provides insights on Canadian trade patterns of consumption goods while section 6 deals with trade patterns of capital goods. The seventh section offers a discussion of the main findings and provides concluding remarks.

What is the Broad Economic Categories classification?

The Broad Economic Categories (BEC) classification was introduced by the United Nations Statistical Commission in 1961 and the first version was published in 1971. There have been three revisions to BEC since 1971 mainly coinciding with revisions to the Standard International Trade Classification (SITC). Its main purpose is to provide a set of broad product categories for the analysis of international merchandise trade statistics in conjunction with other national and international economic statistics such as SNA and industry statistics. The fifth revision of BEC (BEC5) was endorsed for international use by the UN Statistical Commission at its forty-seventh session in March 2016. It is a hierarchical 6-digit classification; it includes services and is defined in terms of the 2012 Harmonized Commodity and Coding System (HS2012) for goods and the Central Product Classification (CPC) 2.1 for services.[2]

Although BEC5 has been endorsed for use, BEC5-based trade data is not available yet and concordances between BEC5 with the Harmonized System (HS), and the Central Product Classification (CPC) have not yet been developed. Therefore, the fourth revision of the BEC was used to develop this new statistical product and to analyse Canadian trade patterns by BEC. The official BEC4, released in 2003, was defined in terms of HS2002 and the SITC, Rev 3. For the purposes of this study, Statistics Canada used concordances between HS1996, HS2007, and HS2012 to produce a time-series of imports and exports by BEC based on BEC4 for the period 2000 to 2016.

Table 1 shows the hierarchical structure of BEC4 and its correspondence with the basic classes of goods in the SNA. It is a three level classification. Level 1 of the classification has seven categories, level 2 has 14 categories and level 3 has eight categories. BEC4 includes 19 basic categories that are not further subdivided.

1. Classification by Broad Economic Categories, Rev 4.
2. Due to these significant changes a direct conversion from the fourth revision of BEC to the fifth revision is not possible (United Nations (2016)).

Table 1
Hierarchy of the Broad Economic Categories classification

	Level	System of National Accounts, basic classes of goods
1 Food and beverages	**1**	**…**
11 Primary	2	…
111 Mainly for industry	3	Intermediate goods
112 Mainly for household consumption	3	Consumption goods
12 Processed	2	…
121 Mainly for industry	3	Intermediate goods
122 For household consumption	3	Consumption goods
2 Industrial supplies not elsewhere specified	**1**	**…**
21 Primary	2	Intermediate goods
22 Processed	2	Intermediate goods
3 Fuels and Lubricants	**1**	**…**
31 Primary	2	Intermediate goods
32 Processed	2	…
321 Motor spirit	3	Unclassified
322 Other	3	Intermediate goods
4 Capital goods (except transport equipment) and parts and accessories thereof	**1**	**…**
41 Capital goods (except transport equipment)	2	Capital goods
42 Parts and accessories	2	Intermediate goods
5 Transport equipment, and parts and accessories thereof	**1**	**…**
51 Passenger cars	2	Unclassified
52 Other	2	…
521 Industrial	3	Capital goods
522 Non-industrial	2	Consumption goods
53 Parts and accessories	2	Intermediate goods
6 Consumer goods not elsewhere specified	**1**	**…**
61 Durable	2	Consumption goods
62 Semi-durable	2	Consumption goods
63 Non-durable	2	Consumption goods
7 Goods not elsewhere specified	**1**	Unclassified

… not applicable
Source: United Nations, 2003. *Classification by Broad Economic Categories*.

Category descriptions

In general, commodities have been classified as primary if they are characteristically products produced by primary sectors of the economy, that is, farming, forestry, fishing, hunting and the extractive industries. Commodities that are characteristically products of other sectors such as manufacturing, are classified as primary in cases where nearly all the value of the product is contributed by one of the primary sectors of the economy. If a commodity is not defined as primary, it is classified as processed.

Capital goods (except transport equipment), and parts and accessories thereof (category 4) are divided into two sub-categories that classify commodities according to whether their main end-use is as capital goods or as intermediate goods. In this category, machinery such as electrical generators and computers, and other manufactured goods such as medical furniture, are used by industry, government and non-profit institutions serving households. They are in fact, producers' goods that are defined in the SNA as part of fixed capital formation. Parts and accessories essential to the maintenance of machinery and unassembled components of machinery used as supplies to assembling plants are inputs to industry and are considered intermediate goods.

The relationship between the three basic classes of goods in the SNA and the basic categories in BEC4 is shown in Table 2

Table 2
Correspondence between System of National Accounts classes of goods and the Broad Economic Categories classification

System of National Accounts, basic classes of goods	Broad Economic Categories code	Broad Economic Categories
Capital goods: sum of	41	Capital goods, except transport equipment
	521	Transport equipment, industrial
Intermediate goods: sum of	111	Food and beverages, primary, mainly for industry
	121	Food and beverages, processed, mainly for industry
	21	Industrial supplies not elsewhere specified, primary
	22	Industrial supplies not elsewhere specified, processed
	31	Fuels and lubricants, primary
	322	Fuels and lubricants, processed (other than motor spirit)
	42	Parts and accessories of capital goods (except transport equipment)
	53	Parts and accessories of transport equipment
Consumption goods: sum of	112	Food and beverages, primary, mainly for household consumption
	122	Food and beverages, processed, mainly for household consumption
	522	Transport equipment, non-industrial
	61	Consumer goods not elsewhere specified, durable
	62	Consumer goods not elsewhere specified, semi-durable
	63	Consumer goods not elsewhere specified, non-durable

Source: United Nations, 2003. *Classification by Broad Economic Categories*.

Creation of Canadian BEC-based trade data

Canadian imports and exports based on BEC were generated for all countries of the world for the period 2000 to 2016. Data was created for all 1 to 3-digit BEC categories as well as for the SNA aggregates: intermediate goods, capital goods, consumption and final (capital plus consumption) goods. Concordances with various versions of the Harmonized Commodity and Coding System (HS) were used to generate the data: HS1996 to BEC4 for the years 2000 to 2001, HS2002 to BEC4 for the years 2002 to 2006, HS2007 to BEC4 for the years 2007 to 2011 and HS2012 to BEC4 for the years 2012 to 2016.

Although the data were generated for all countries, published tables were restricted to Canada's top sixty trading partners. The ranking of trading partners was determined based on 2016 total merchandise trade (exports plus imports) as shown in Table 3.

Table 3
Total trade, 2016

		2016		
		Total imports	Total exports	Total trade
	Ranking	millions of dollars		
All countries	0	533,342.2	517,007.1	1,050,349.3
United States	1	278,275.9	394,384.1	672,660.0
China	2	64,386.2	20,972.4	85,358.6
Mexico	3	33,182.4	7,632.0	40,814.4
Japan	4	15,802.5	10,722.0	26,524.6
United Kingdom	5	8,258.3	17,098.3	25,356.6
Germany	6	17,240.5	4,062.7	21,303.2
South Korea	7	10,603.4	4,368.9	14,972.3
Italy	8	7,540.4	2,340.1	9,880.4
France	9	5,978.6	3,404.0	9,382.5
India	10	4,038.0	3,983.2	8,021.1
Taiwan	11	5,080.4	1,585.2	6,665.6
Netherlands	12	3,668.3	2,843.3	6,511.6
Brazil	13	3,856.8	2,045.4	5,902.2
Switzerland	14	4,499.6	1,299.8	5,799.4
Vietnam	15	4,956.2	528.0	5,484.3

Table 3
Total trade, 2016

		2016		
		Total imports	Total exports	Total trade
	Ranking	millions of dollars		
Belgium	16	2,214.6	3,214.3	5,429.0
Spain	17	2,355.5	1,808.2	4,163.8
Thailand	18	3,150.1	901.4	4,051.5
Australia	19	2,004.5	1,956.0	3,960.5
Malaysia	20	2,593.0	709.7	3,302.6
Peru	21	2,458.2	764.5	3,222.7
Norway	22	1,583.2	1,520.5	3,103.6
Indonesia	23	1,620.2	1,458.3	3,078.5
Saudi Arabia	24	1,718.1	1,239.2	2,957.3
Hong Kong	25	294.4	2,334.8	2,629.3
Sweden	26	2,054.1	531.2	2,585.4
Poland	27	1,917.4	616.1	2,533.6
Turkey	28	1,368.2	1,152.6	2,520.8
Ireland	29	1,934.3	496.0	2,430.4
Chile	30	1,687.3	725.5	2,412.8
Bangladesh	31	1,621.1	771.7	2,392.8
Algeria	32	1,856.9	518.4	2,375.2
Singapore	33	983.8	1,342.1	2,325.9
Philippines	34	1,355.1	626.0	1,981.1
Austria	35	1,749.8	229.2	1,978.9
United Arab Emirates	36	128.0	1,790.6	1,918.6
Argentina	37	1,601.4	307.6	1,909.0
Nigeria	38	1,571.7	313.5	1,885.2
Israel	39	1,293.4	422.9	1,716.3
Colombia	40	788.0	783.7	1,571.8
Russia	41	931.5	607.0	1,538.4
Finland	42	847.8	670.9	1,518.8
Pakistan	43	364.1	1,078.5	1,442.6
Denmark	44	1,024.6	378.1	1,402.7
Egypt	45	1,033.0	331.9	1,364.9
South Africa	46	851.9	468.8	1,320.7
Dominican Republic	47	1,166.3	151.3	1,317.6
Cambodia	48	1,188.3	41.3	1,229.6
New Zealand	49	662.8	465.0	1,127.8
Guatemala	50	810.2	114.7	925.0
Portugal	51	558.5	257.1	815.6
Cuba	52	389.4	410.1	799.5
Kazakhstan	53	690.3	80.4	770.7
Malta	54	46.2	721.7	767.8
Morocco	55	423.7	343.3	767.0
Czech Republic	56	542.3	173.5	715.8
Guyana	57	667.0	36.7	703.7
Hungary	58	604.9	75.7	680.7
Costa Rica	59	508.6	144.4	653.0
Sri Lanka	60	348.8	272.6	621.5

Source: Statistics Canada, Canadian International Merchandise Trade Program.

Import and export data

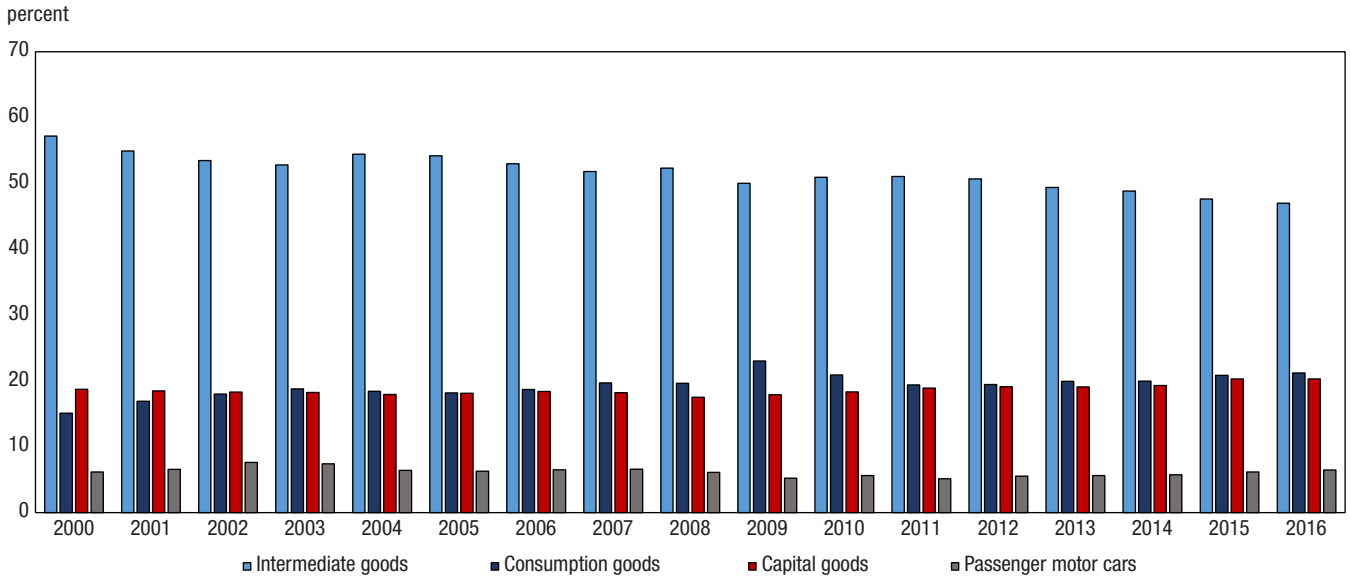
Chart 1 shows the evolving shares of different classes of goods - intermediate goods, consumption goods, capital goods and passenger motor cars – to total imports over the period 2000 to 2016. Imports of intermediate goods accounted for 47.0% of total imports for Canada in 2016 compared to 57.2% in 2000. Imports of consumption and capital goods made up 21.2% and 20.3% in 2016 compared to 15.1% and 18.7% in 2000. And passenger motor cars represented 6.5% of total imports in 2016 essentially unchanged from 2000. This highlights an important trend in Canadian imports – a move away from the import of intermediate goods towards capital and consumption goods. This could point to a changing role of Canadian business – away from 'assembler' towards distributor.

Chart 2 displays the evolving shares of different classes of goods to total exports for Canada over the period 2000 to 2016. In 2016, 58.1% of export value was in exports of intermediate goods compared to 56.8% in 2000. Like imports, the share of passenger motor cars in total exports has remained stable (12.4% in 2016 versus 12.6% in 2000) while the share of capital goods has declined from 14.6% in 2000 to 9.0% in 2016. As for imports, the growth rate of consumption goods exports (3.8%) outpaced that of intermediate goods exports (1.6%) and capital goods exports (-1.6%).

The declining share of intermediate goods imports has evolved in the opposite direction from the share of intermediate goods exports. Both shares of consumption goods imports and exports rose while there appears to be a consistent decline in the share of capital goods exports.

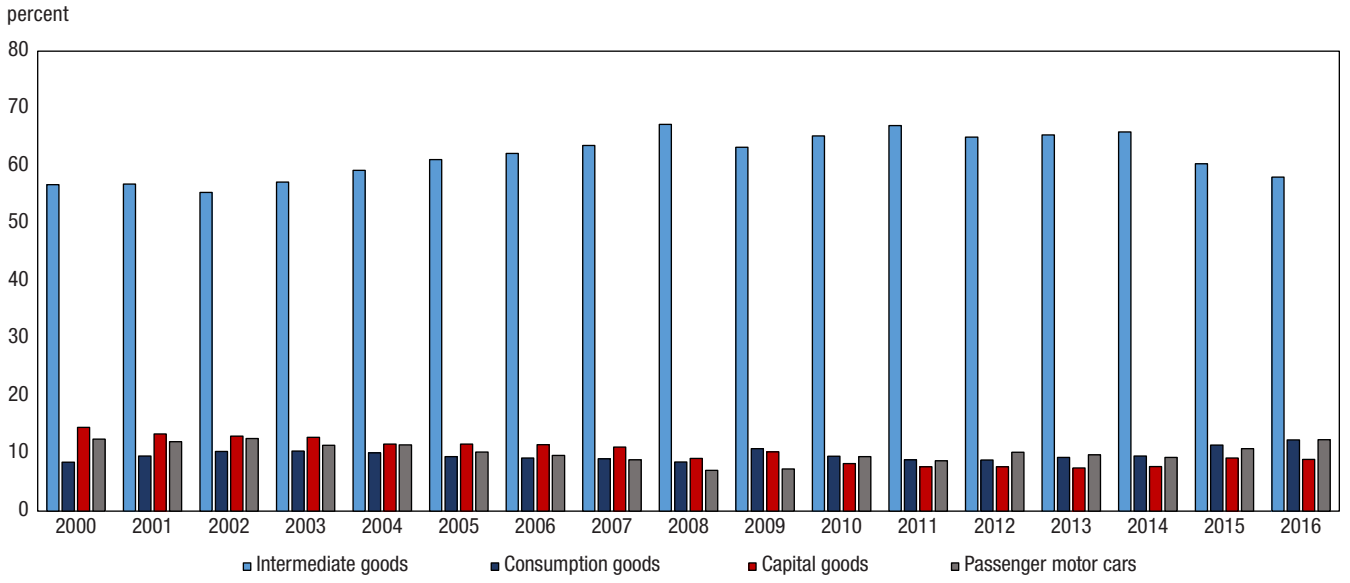
In the rest of the study, trade patterns in intermediate goods, consumption goods and capital goods imports and exports will be analysed in detail.

Chart 1
Shares of Broad Economic Categories in total Canadian imports, 2000 to 2016



Note: The shares do not sum up to 100 percent as goods not elsewhere specified (BEC 7) and some special classification provisions in HS chapters 98 and 99 were not included.
Source: Statistics Canada, CANSIM Table 228-0081.

Chart 2
Shares of Broad Economic Categories in total Canadian exports, 2000 to 2016



Note: The shares do not sum up to 100 percent as goods not elsewhere specified (BEC 7) and some special classification provisions in HS chapters 98 and 99 were not included.
Source: Statistics Canada, CANSIM Table 228-0081.

Canadian trade patterns in intermediate goods

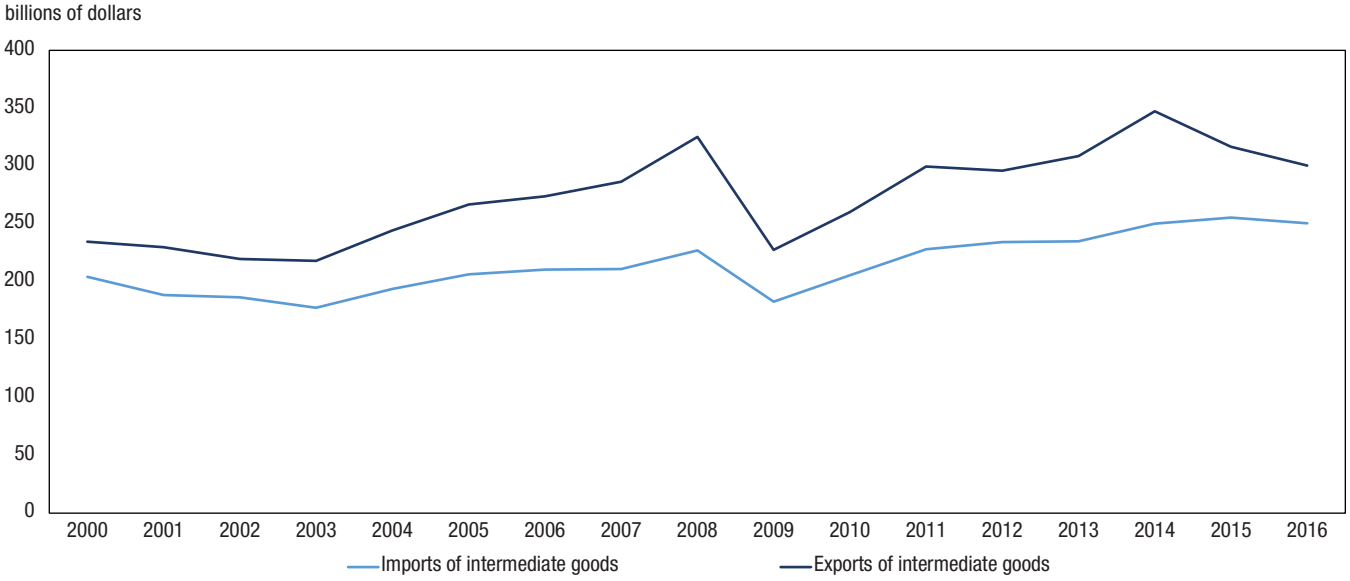
Chart 3 presents Canadian exports and imports of intermediate goods. Exports of intermediate goods decreased 5.1% to $300.5 billion in 2016 from $316.7 billion in 2015. Imports of intermediate goods also diminished 1.9% to $250.6 billion in 2016 from $255.6 billion in 2015. Over the last 16 years, Canada exported

more intermediate goods than it imported. Over the same period, the growth rate of intermediate goods exports (1.6%) slightly outpaced that of intermediate goods imports (1.3%). As with global intermediate goods trade, Canadian intermediate goods trade was hard hit by the financial crisis of 2009. Moreover, it is often the case that intermediate goods trade is more sensitive to recessions and business cycles where slowdowns and downturns impact material, parts and component shipments more than final goods because final goods producers tend to decrease parts inventories and delay re-ordering during and directly after periods of uncertainty. Chart 3 indicates that this is what occurred in the recession of 2009 and they recovered rapidly after the crisis.

As displayed in Table 4, 71.6% of Canadian intermediate exports were destined for the United States in 2016. Only 5.3%, 5.0%, 2.6% and 1.8 % were bound for China, United Kingdom, Japan and Mexico, respectively. These shares appear to be larger than those observed for total merchandise exports, with the exception of the U.S. (71.6% versus 76.3 %). It is worth noting that the share of U.S. exports has decreased from 83.1% in 2000 to 71.6 % in 2016 while China's share has increased from 1.4% in 2000 to 5.3% in 2016.

As also shown in Table 4, the growth rate of Canadian intermediate goods exports was the strongest with respect to India (13.0%), China (10.6%), United Kingdom (8.9%) and Mexico (8.2%), respectively.

Chart 3
Imports and exports of intermediate goods, 2000 to 2016



Source: Statistics Canada, CANSIM Table 228-0081.

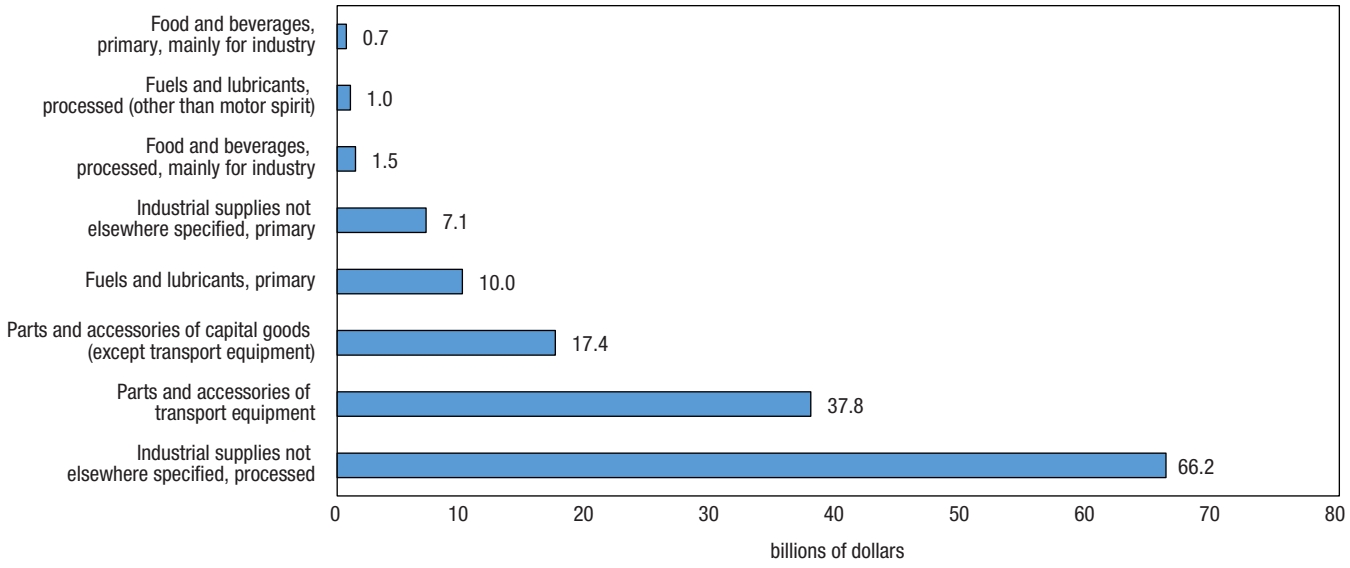
In 2016, 56.5% of intermediate imports were sourced from the United States. This share is higher than in total merchandise imports (52.2%) but has decreased by 11.3 percentage points over the period 2000 to 2016. Imports of intermediate goods from China, Mexico, Japan and Germany represented 8.2%, 5.2%, 3.1% and 2.8% of total intermediate goods imports in 2016, respectively. It is noteworthy that China's share increased from 1.5% in 2000 to 8.2% in 2016 while Mexico's share went up from 2.6% in 2000 to 5.2% in 2016. The growth rate of intermediate imports was the fastest with respect to China, Brazil and Mexico. Moreover, the average growth rate of intermediate imports from the U.K. was negative over the period 2000 to 2016.

Trade of intermediate goods by BEC category with selected major trading partners

Imports of intermediate goods from the United States

Canada's imports of intermediate goods from the United States decreased 3.0 % to $141.7 billion in 2016 from $146.2 billion in 2015. Imports of intermediate goods from the U.S. are dominated by processed industrial supplies not elsewhere specified (BEC 22), parts and accessories of transport equipment (BEC 53) and parts and accessories of capital goods (BEC 42), which together accounted for 85.7% of all intermediate goods imports from the U.S.

Chart 4
Imports of intermediate goods from the United States, 2016



Source: Statistics Canada, CANSIM Table 228-0081.

Table 4
Imports and exports of intermediate goods by country

	2000	2008	2015	2016	Share in 2000	Share in 2016	Growth rate 2000 to 2016
	billions of dollars				%		
Exports of intermediate goods							
All countries	234.6	325.3	316.7	300.5	100.0	100.0	1.6
United States	195.1	246.4	229.6	215.0	83.1	71.6	0.6
China	3.2	9.1	16.4	16.0	1.4	5.3	10.6
United Kingdom	3.8	10.4	13.7	15.0	1.6	5.0	8.9
Japan	7.4	9.1	7.3	7.7	3.2	2.6	0.3
Mexico	1.5	4.5	4.7	5.4	0.7	1.8	8.2
South Korea	2.1	3.2	3.3	3.6	0.9	1.2	3.5
India	0.4	1.6	2.4	2.5	0.2	0.8	13.0
Belgium	1.8	2.7	2.3	2.5	0.8	0.8	2.2
France	1.3	2.2	2.4	2.5	0.5	0.8	4.4
Germany	2.0	3.1	2.3	2.4	0.9	0.8	1.1
Imports of intermediate goods							
All countries	204.2	227.1	255.6	250.6	100.0	100.0	1.3
United States	138.4	124.9	146.2	141.7	67.8	56.5	0.1

Table 4
Imports and exports of intermediate goods by country

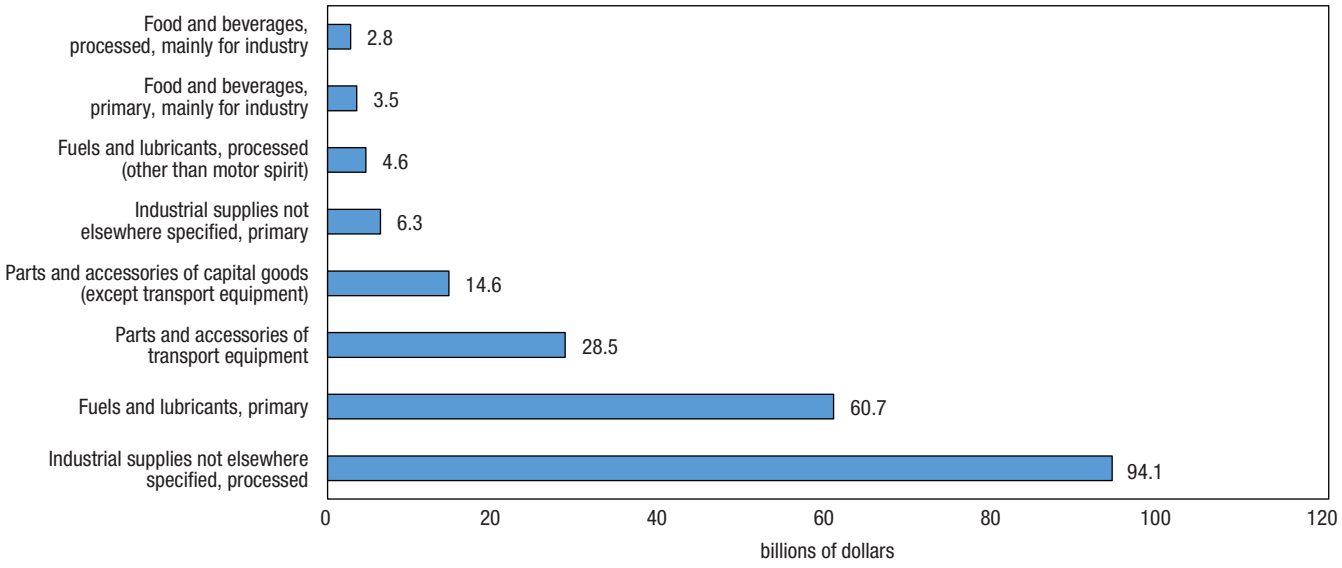
	2000	2008	2015	2016	Share in 2000	Share in 2016	Growth rate 2000 to 2016
	billions of dollars				%		
China	3.0	12.4	20.9	20.4	1.5	8.2	12.7
Mexico	5.2	7.1	12.1	13.1	2.6	5.2	5.9
Japan	7.7	5.9	7.4	7.7	3.8	3.1	0.0
Germany	3.7	5.0	7.1	7.1	1.8	2.8	4.2
United Kingdom	8.9	8.9	5.1	3.9	4.4	1.5	-5.1
South Korea	2.1	2.6	3.3	3.4	1.0	1.4	3.0
Brazil	1.0	1.9	2.8	3.1	0.5	1.2	7.2
Taiwan	.5	2.1	3.2	2.9	1.2	1.2	0.9
Italy	1.8	2.0	2.7	2.7	0.9	1.1	2.5

Source: Statistics Canada, CANSIM Table 228-0081.

Exports of intermediate goods to the United States

Canada's exports of intermediate goods to the United States decreased 6.3% to $215.0 in 2016 from $229.6 billion in 2015. The intermediate goods exports were concentrated in processed industrial supplies not elsewhere specified (BEC 22), primary fuels and lubricants (BEC 31) and parts and accessories of transport equipment (BEC 53) which together accounted for 85.2 % of all intermediates exports to the United States. Of these three BEC categories, primary fuels and lubricants contributed the most to the decrease in intermediate goods exports, with a drop of 18.1%.

Chart 5
Exports of intermediate goods to the United States, 2016



Source: Statistics Canada, CANSIM Table 228-0081.

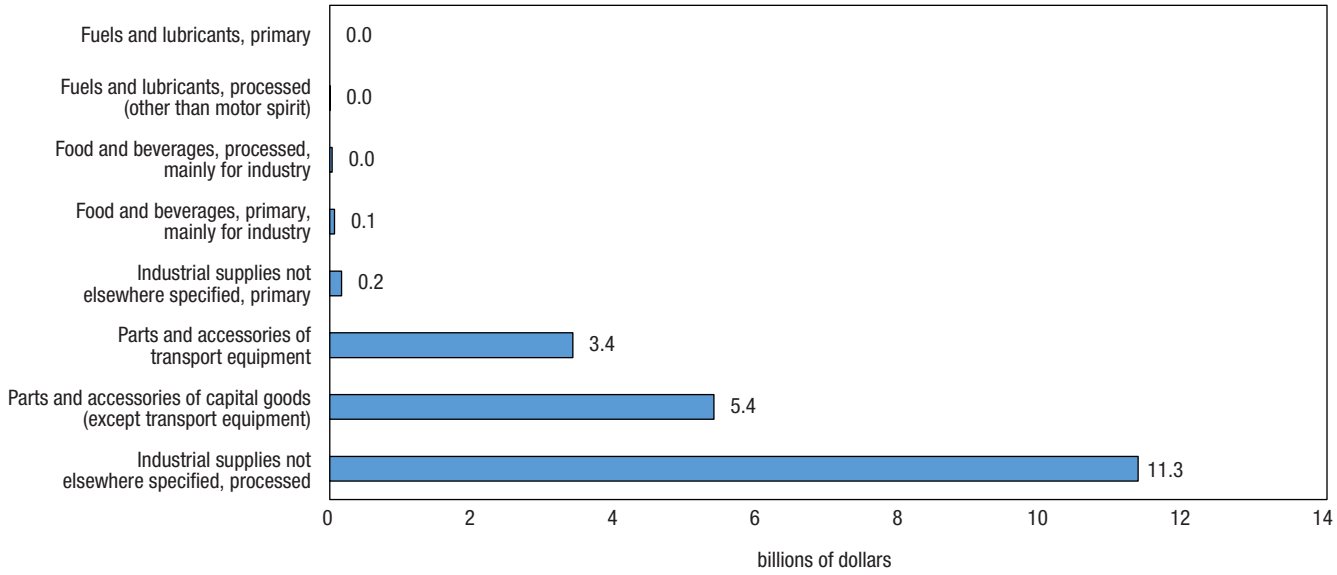
Overall, BEC categories with the largest values of both imports and exports were in similar commodities, which suggests that intermediate goods trade between Canada and the U.S. is intra-industry trade.

Imports of intermediate goods from China

Canada's intermediate goods imports from China decreased 2.1% to $20.4 billion in 2016 from $20.9 billion in 2015. The top three BEC categories alone – processed industrial supplies not elsewhere specified (55.6%), parts

and accessories of capital goods (except transport equipment) (26.4%) and parts and accessories of transport equipment (16.7%) – represented 98.7% of all intermediate goods imports from China.

Chart 6
Imports of intermediate goods from China, 2016

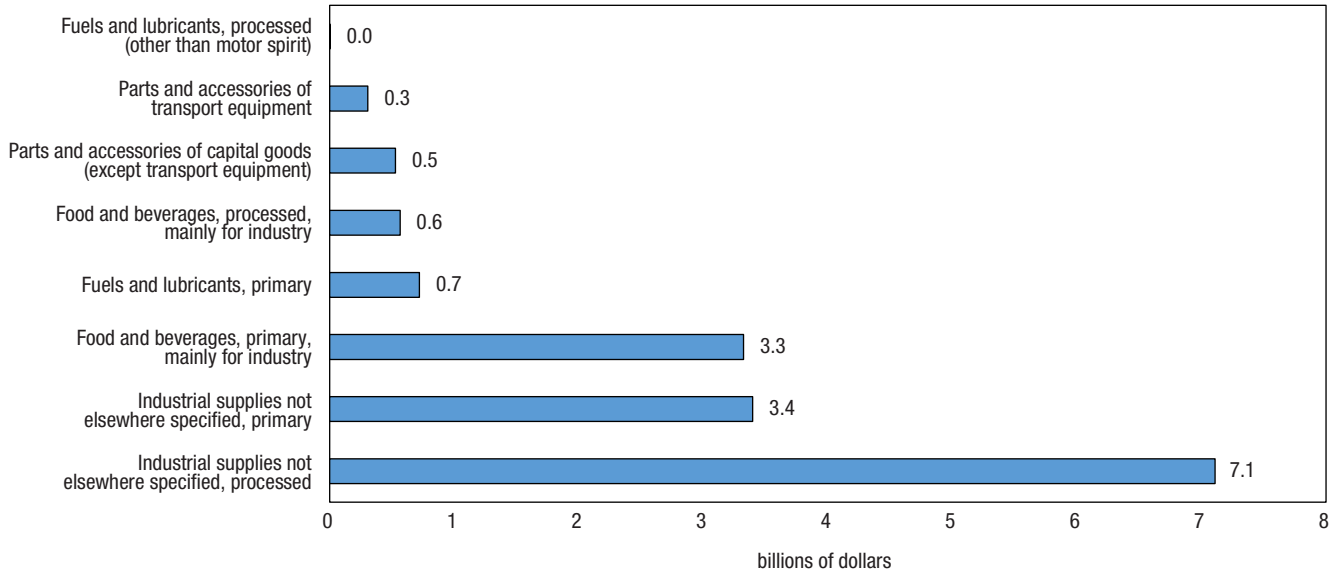


Source: Statistics Canada, CANSIM Table 228-0081.

Exports of intermediate goods to China

Canada's intermediate goods exports to China fell 2.8% to $16.0 billion in 2016 from $16.4 billion in 2015. Processed industrial supplies not elsewhere specified (BEC 22), primary industrial supplies not elsewhere specified (BEC 21) and primary food and beverages, mainly for industry (BEC 111) were the largest commodities by value, accounting for 86.7% of all intermediate goods exports to China.

Chart 7
Exports of intermediate goods to China, 2016

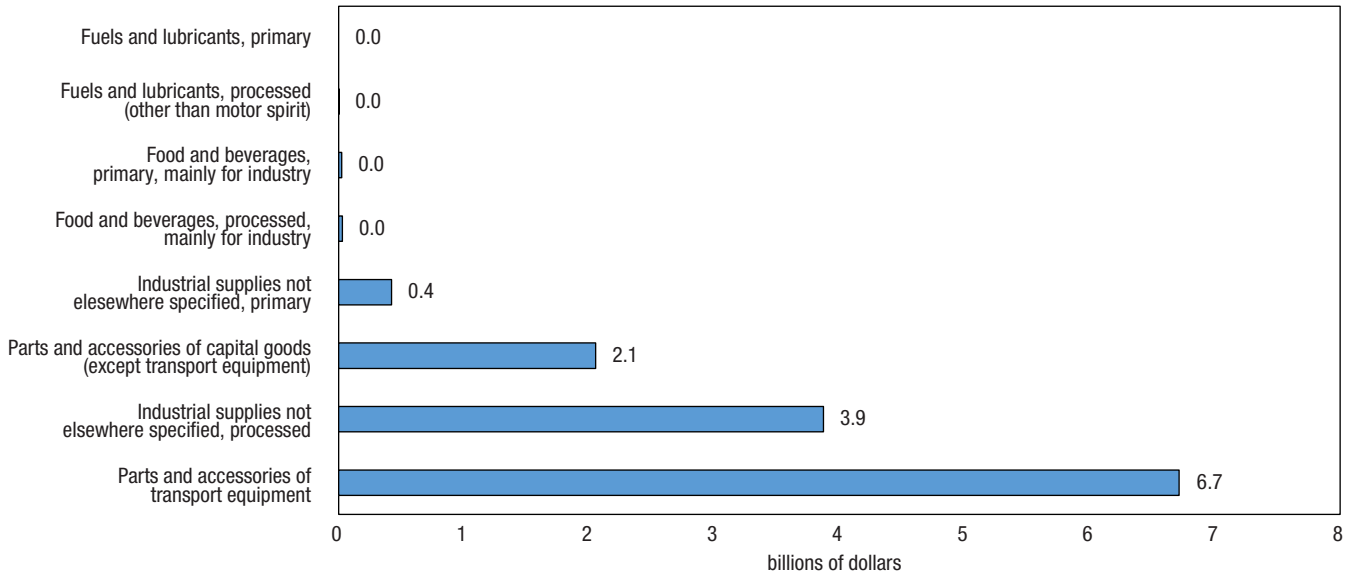


Source: Statistics Canada, CANSIM Table 228-0081.

Imports of intermediate goods from Mexico

Canada's intermediate goods imports from Mexico grew 8.5% to $13.1 billion in 2016 from $12.1 billion in 2015. The major intermediate goods imports from Mexico were comprised of parts and accessories of transport equipment (BEC 53), processed industrial supplies not elsewhere specified (BEC 22) and parts and accessories of capital goods (except transport equipment) (BEC 42). Together these three BEC categories accounted for 96.3% of intermediate goods imports from Mexico.

Chart 8
Imports of intermediate goods from Mexico, 2016

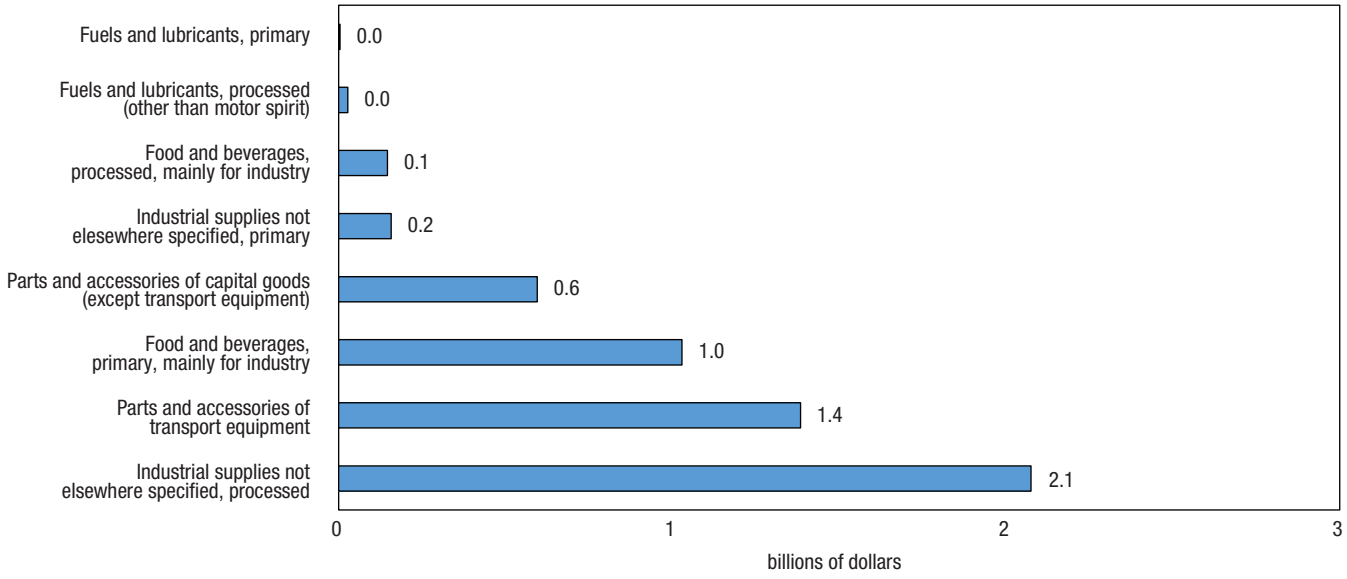


Source: Statistics Canada, CANSIM Table 228-0081.

Exports of intermediate goods to Mexico

Canada's intermediate goods exports to Mexico rose 14.9% to $5.4 billion in 2016 from $4.7 billion in 2015. Processed industrial supplies not elsewhere specified(BEC 22), parts and accessories of transport equipment (BEC 53) and primary food and beverages, mainly for industry (BEC 111) were the largest exports by value, accounting for 82.9% of all intermediate goods exports to Mexico.

Chart 9
Exports of intermediate goods to Mexico, 2016



Source: Statistics Canada, CANSIM Table 228-0081.

Here again, the major BEC categories traded in both imports and exports were in similar products, which indicates that intermediate goods trade between Canada and Mexico is intra-industry trade.

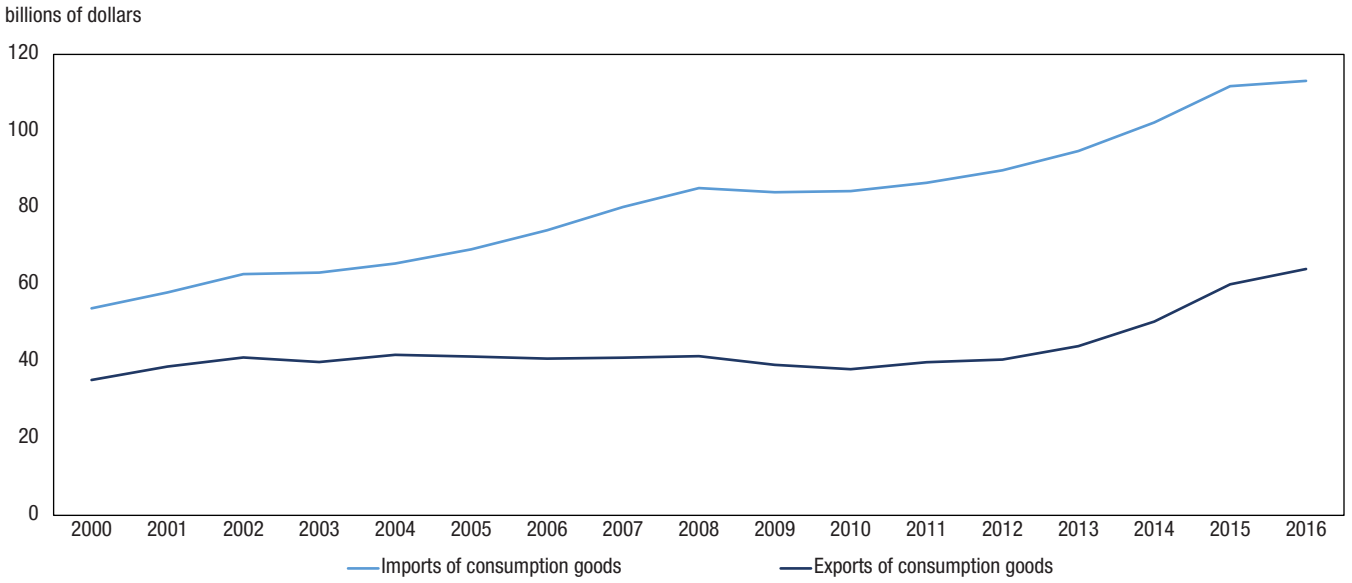
Canadian trade patterns in consumption goods

Chart 10 shows imports and exports of consumption goods over the period 2000 to 2016. Over this period, Canada imported more consumption goods than it exported. Imports of consumption goods have consistently increased each year since 2000, except for 2009. They reached $113.1 billion in 2016, more than doubling over the period 2000 to 2016. Exports of consumption goods have also been growing since 2010, reaching $64.2 billion in 2016. Over the 2000 to 2016 period, the growth rate of consumption goods imports outpaced that of consumption goods exports by 0.9%.

As shown in Table 5, in 2016, 41.2% of consumption goods imports were sourced from the U.S., followed by China (20.4%), Mexico (4.9%), Italy (2.8%) and Vietnam (2.3%). For China, it is the largest share of either imports or exports and in any category of traded goods (intermediate, consumption or capital). Vietnam is increasingly a supplier of consumption goods to Canada. Not only, it is the fifth-largest source of imports in consumption goods, but also their growth rate was the strongest (18.6%) over the 2000 to 2016 period.

In 2016, 73.7% of consumption goods exports were bound for U.S. while (3.7%), (3.5%) and (1.8%) were destined for Japan, China and India, respectively. Where growth was concerned, it was the fastest with respect to China (17.7%), India (15.7%) and Italy (13.9%), respectively, over the 2000 to 2016 period.

Chart 10
Imports and exports of consumption goods, 2000 to 2016



Source: Statistics Canada, CANSIM Table 228-0081.

Table 5
Imports and exports of consumption goods by country

	2000	2008	2015	2016	Share in 2000	Share in 2016	Growth rate 2000 to 2016
	billions of dollars				%		
Imports of consumption goods							
All countries	53.9	85.2	111.8	113.2	100.0	100.0	4.7
United States	28.4	35.2	46.9	46.6	52.7	41.2	3.1
China	6.5	19.1	23.4	23.0	12.0	20.4	8.3
Mexico	1.6	4.4	5.1	5.5	2.9	4.9	8.2
Italy	1.2	1.9	2.9	3.2	2.2	2.8	6.5
Vietnam	0.2	0.8	2.4	2.6	0.3	2.3	18.6
Germany	1.0	2.0	2.3	2.3	1.8	2.1	5.8
France	1.3	2.2	2.1	2.2	2.3	1.9	3.5
Switzerland	0.5	1.1	2.0	2.0	0.9	1.7	9.2
India	0.7	0.9	1.7	1.7	1.2	1.5	6.1
Bangladesh	0.2	0.6	1.5	1.6	0.3	1.4	15.0
Exports of consumption goods							
All countries	35.3	41.4	60.2	64.2	100.0	100.0	3.8
United States	29.9	31.1	44.1	47.3	84.8	73.7	2.9
Japan	1.4	1.5	2.0	2.4	4.0	3.7	3.4
China	0.2	0.6	1.8	2.2	0.5	3.5	17.7
India	0.1	0.4	1.6	1.2	0.3	1.8	15.7
United Kingdom	0.4	0.7	0.8	0.7	1.2	1.1	2.9
Hong Kong	0.2	0.4	0.6	0.7	0.4	1.1	9.5
Mexico	0.2	0.4	0.7	0.7	0.6	1.0	7.1
Italy	0.1	0.2	0.7	0.7	0.2	1.0	13.9
Belgium	0.1	0.2	0.6	0.5	0.4	0.8	8.6
South Korea	0.1	0.3	0.4	0.5	0.4	0.7	7.5

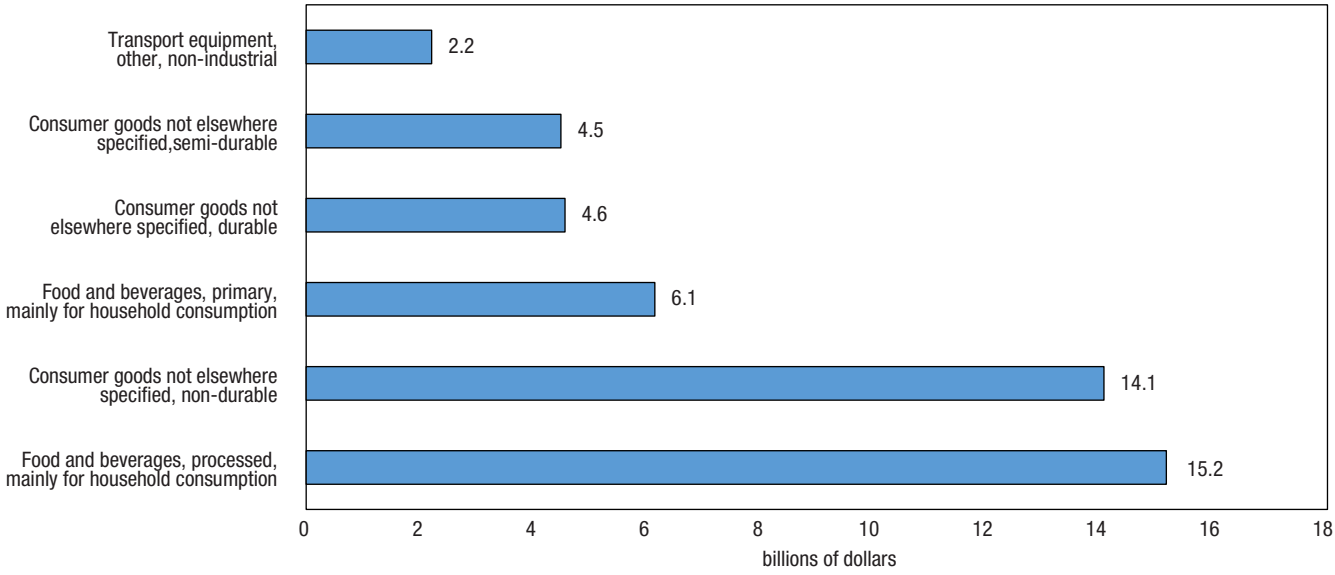
Source: Statistics Canada, CANSIM Table 228-0081.

Trade of consumption goods by BEC category with selected major trading partners

Imports of consumption goods from the United States

Consumption goods imports from the United States slightly decreased 0.6% to $46.6 billion in 2016 from $46.9 billion in 2015. Processed food and beverages, mainly for household consumption and non-durable consumption goods led imports of consumption goods from the United States, with shares of 32.5% and 30.2%, respectively, in 2016. Primary food and beverages, mainly for household consumption followed in relative importance with a share of 13.2%.

Chart 11
Imports of consumption goods from the United States, 2016

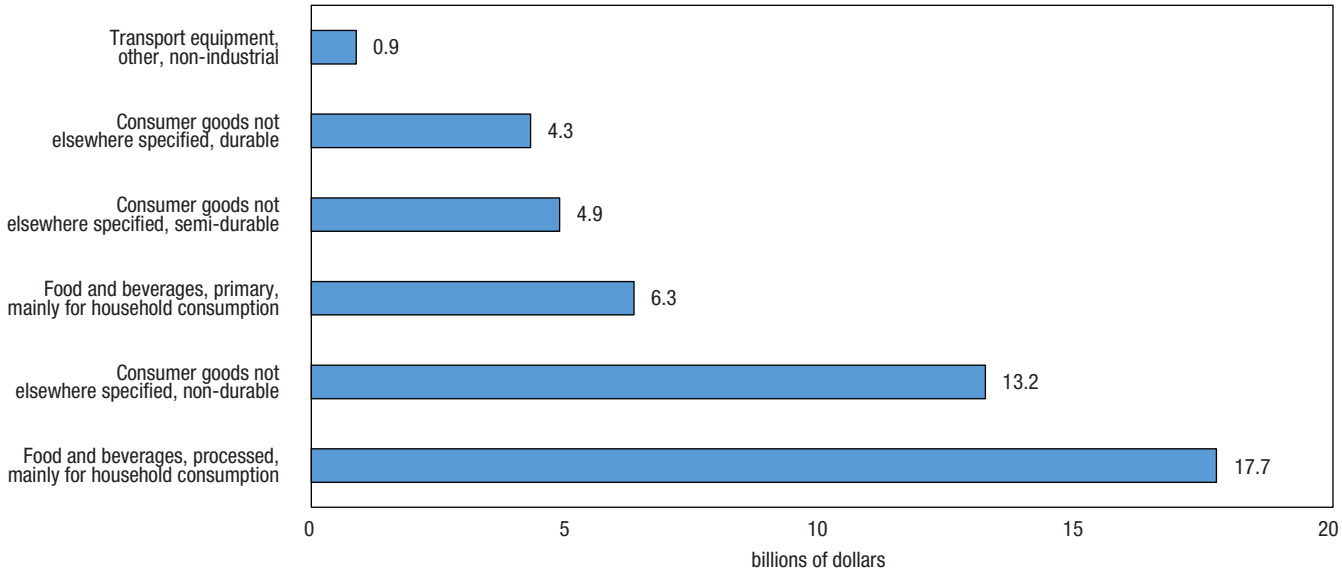


Source: Statistics Canada, CANSIM Table 228-0081.

Exports of consumption goods to the United States

Consumption goods exports to the United States accelerated 7.3% to $47.3 billion in 2016 from $44.1 billion in 2015. Processed food and beverages, mainly for household consumption and non-durable consumption goods dominated exports of consumption goods to the United States. They were followed in importance by primary food and beverages, mainly for household consumption and semi-durable consumption goods.

Chart 12
Exports of consumption goods to the United States, 2016



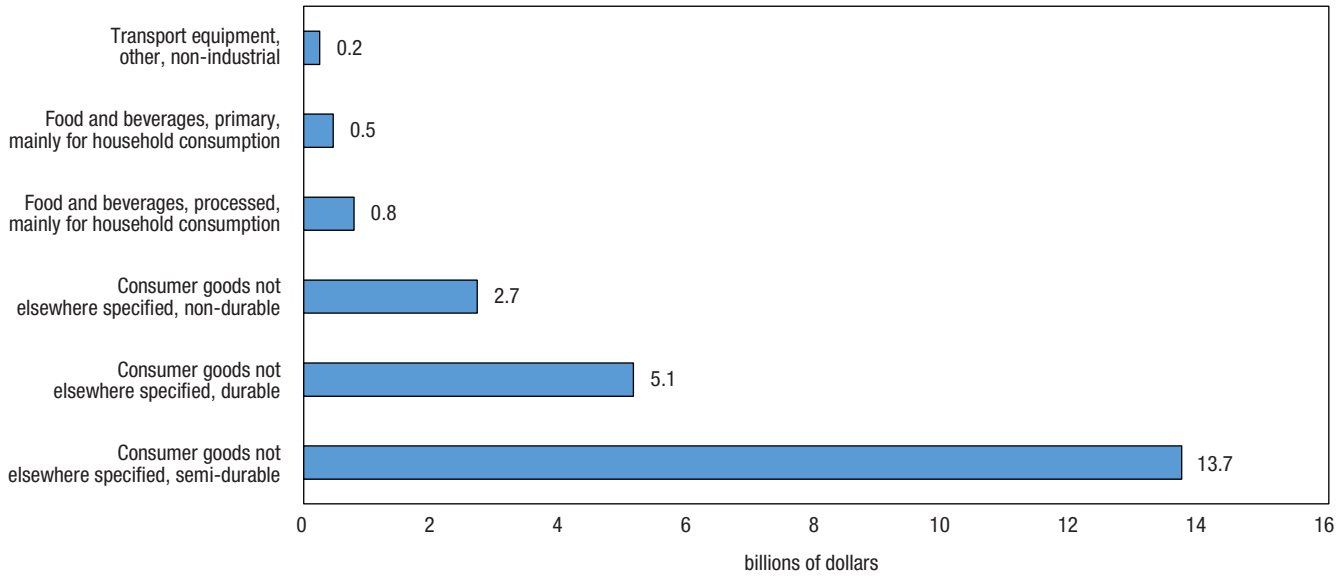
Source: Statistics Canada, CANSIM Table 228-0081.

Yet again similar commodity categories, both primary and processed food and beverages, and non-durable consumer goods, were found to be the main import and export categories of consumption goods, which supports the assertion that consumer goods trade between Canada and the United States is intra-industry trade.

Imports of consumption goods from China

Consumption goods imports from China contracted by 1.7% to $23.0 billion in 2016 from $23.4 billion in 2015. The three types of consumption goods (semi-durable, durable and non-durable) dominated imports of consumption goods from China. Together, these three BEC categories accounted for 93.5% of all consumption goods imports from China in 2016.

Chart 13
Imports of consumption goods from China, 2016

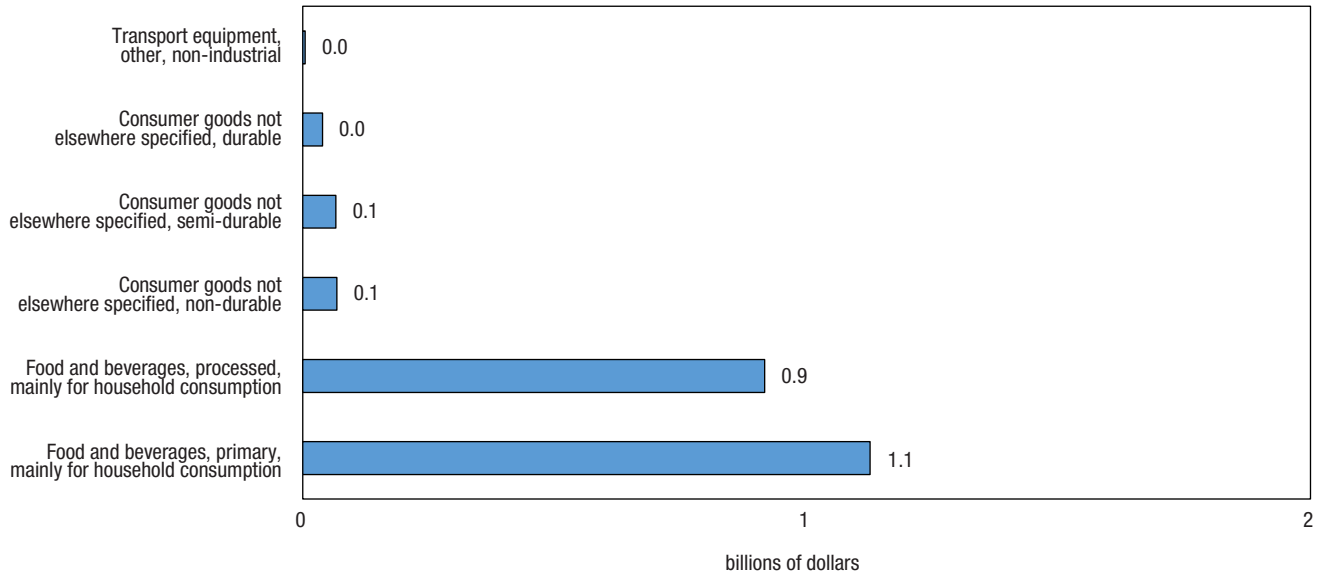


Source: Statistics Canada, CANSIM Table 228-0081.

Exports of consumption goods to China

Compared to consumption goods imports, exports of consumption goods to China were not significant in 2016, with only one BEC category (112) reaching the one billion mark. The main exports were comprised of food and beverages, both primary and processed, mainly for household consumption. These two BEC categories represented 92.0% of all consumer goods exports to China.

Chart 14
Exports of consumption goods to China, 2016

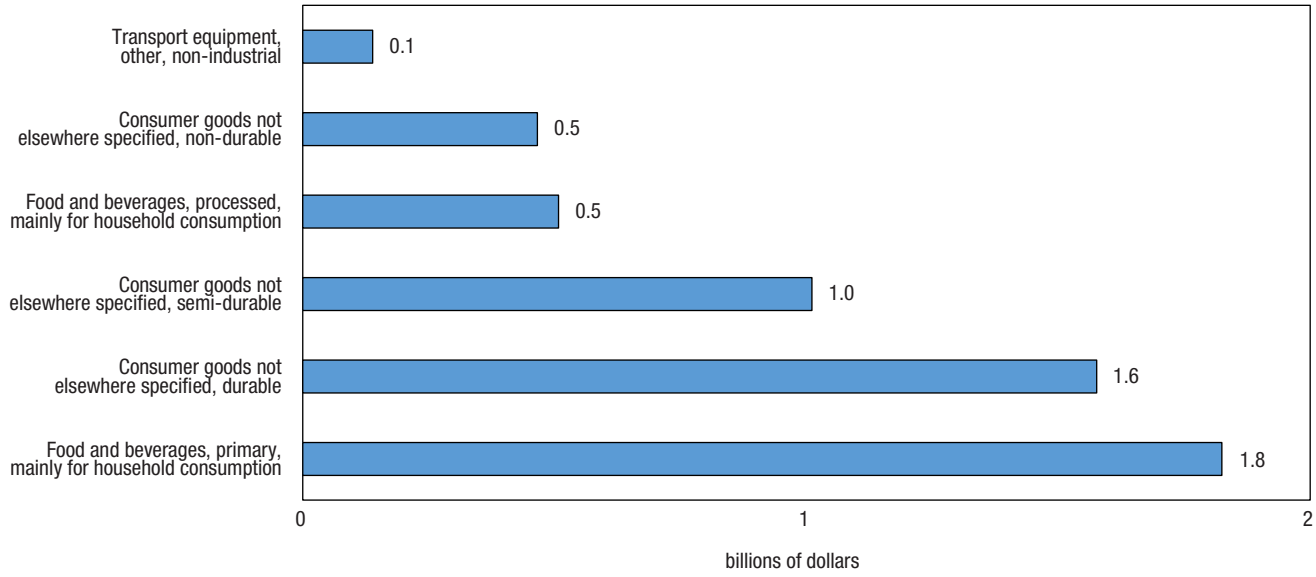


Source: Statistics Canada, CANSIM Table 228-0081.

Imports of consumption goods from Mexico

Consumption goods imports from Mexico increased 8.6% to $5.5 billion in 2016 from $5.1 billion in 2015. The growth rate of consumption goods imports from Mexico was robust, at 8.2%, over the 2000 to 2016 period. Overall, they were concentrated in primary food and beverages, mainly for household consumption, durable and semi-durable consumer goods. These three BEC categories combined accounted for 79.9% of all consumption goods imports from Mexico in 2016.

Chart 15
Imports of consumption goods from Mexico, 2016



Source: Statistics Canada, CANSIM Table 228-0081.

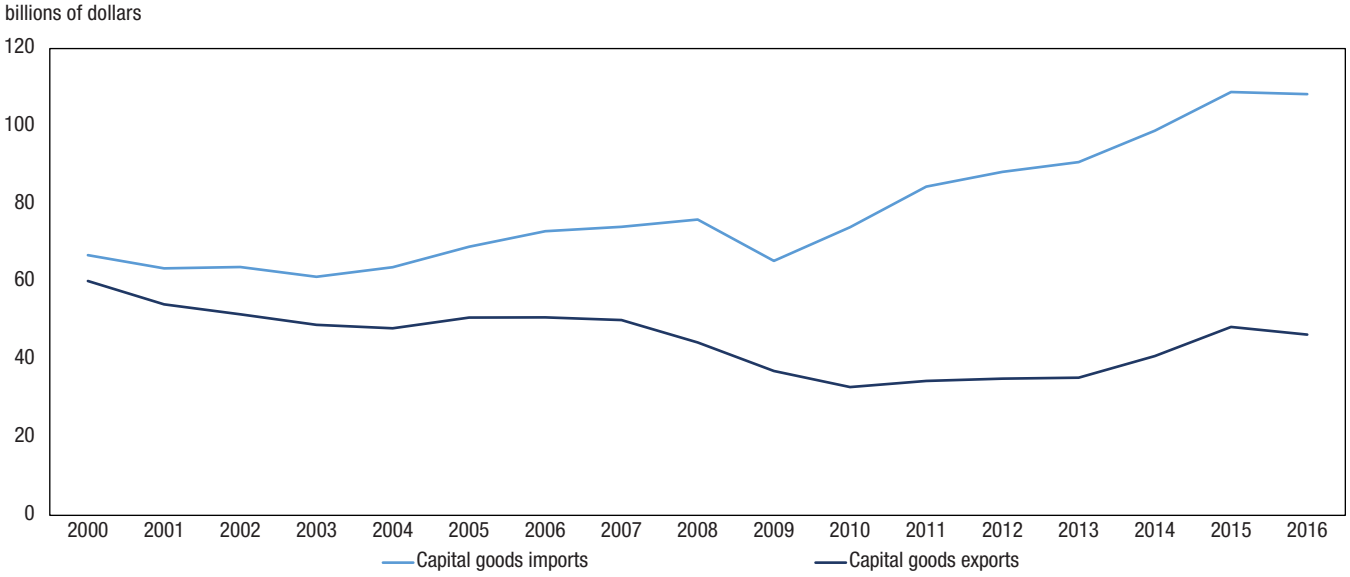
Exports of consumption goods to Mexico

As with China, consumption goods trade with Mexico is asymmetrical with consumption goods exports well below imports. In 2016, the main exports of consumption goods to Mexico consisted of processed food and beverages, mainly for household consumption (BEC 122) and non-durable consumer goods (BEC 63), valued at $414.7 million and $109.8 million, respectively.

Canadian trade patterns in capital goods

Chart 16 displays imports and exports of capital goods over the period 2000 to 2016. Like consumption goods, Canada imported more capital goods than it exported over the period. Imports of capital goods have been trending upwards since 2003, except for 2009. They attained $108.3 billion in 2016. By comparison, exports of capital goods have consistently been below the $60.2 billion mark reached in 2000, totalling $46.5 billion in 2016. As a consequence, the growth rate of capital goods imports outpaced that of capital goods exports by a wide margin (3.1% vs -1.6%), over the period 2000 to 2016.

Chart 16
Imports and exports of capital goods, 2000 to 2016



Source: Statistics Canada, CANSIM Table 228-0081.

As exhibited in Table 6, in 2016, 48.2% of imports in capital goods originated from the United States, followed by China (19.0%), Mexico (8.8%), South Korea (3.9%) and Germany (3.6%). Once again, the share of China has increased more than 10 times in 16 years. Also to note, while capital goods imports from Vietnam stood at $1.3 million in 2000, they reached $1.6 billion in 2016.

In 2016, 72.5% of capital goods exports were destined for the United States, while 2.9% and 2.5% were bound for China and the United Kingdom. Malta was the fourth-largest destination of capital goods exports, mainly of aircrafts of unladen weight exceeding 15000 kg and between 2000kg and 15000kg. Exports to the United States were the largest contributor to the decrease of capital goods exports as they declined on average by 2.8% over the period 2000 to 2016. Exports to the United Kingdom and Germany also contracted slightly, by 0.5% and 0.1%, respectively.

Table 6
Imports and exports of capital goods by country

	2000	2008	2015	2016	Share in 2000	Share in 2016	Growth rate 2000 to 2016
	billions of dollars				%		
Imports of capital goods							
All countries	66.9	76.1	108.8	108.3	100.0	100.0	3.1
United States	43.8	41.6	54.3	52.2	65.5	48.2	1.1
China	1.8	11.0	21.2	20.6	2.7	19.0	16.5
Mexico	2.6	4.2	9.6	9.6	3.9	8.8	8.5
South Korea	1.6	1.3	1.9	4.2	2.4	3.9	6.1
Germany	1.9	3.1	4.2	3.9	2.8	3.6	4.7
Japan	3.8	3.1	3.0	3.3	5.7	3.0	-1.0
Vietnam	0.0	0.0	1.1	1.6	0.0	1.5	56.3
Italy	0.7	0.9	1.4	1.3	1.0	1.2	4.4
Taiwan	1.6	1.1	1.3	1.3	2.4	1.2	-1.5
United Kingdom	2.6	1.0	1.3	1.2	3.9	1.1	-4.9
Exports of capital goods							
All countries	60.2	44.4	48.5	46.5	100.0	100.0	-1.6
United States	53.5	31.9	35.5	33.7	88.8	72.5	-2.8

Table 6
Imports and exports of capital goods by country

	2000	2008	2015	2016	Share in 2000	Share in 2016	Growth rate 2000 to 2016
	billions of dollars				%		
China	0.3	0.7	1.2	1.3	0.6	2.9	8.9
United Kingdom	1.3	1.5	1.2	1.2	2.1	2.5	-0.5
Malta	0.0	0.0	1.0	0.7	0.0	1.5	40.3
Germany	0.7	0.8	0.5	0.7	1.2	1.5	-0.1
Mexico	0.1	0.5	0.6	0.7	0.2	1.5	10.8
Australia	0.3	0.7	0.5	0.5	0.6	1.1	2.6
Japan	0.2	0.3	0.3	0.4	0.4	0.9	3.5
Spain	0.1	0.2	0.1	0.4	0.2	0.9	8.0
Switzerland	0.1	0.1	0.1	0.4	0.2	0.9	9.7

Source: Statistics Canada, CANSIM Table 228-0081.

Analysis of capital goods by BEC category with selected major trading partners is not conducted as there are only two BEC categories of capital goods, namely capital goods (except transport equipment (BEC 41) and industrial transport equipment (BEC 521). Trade values for BEC 41 consistently exceed trade values for BEC 521 in all countries.

Conclusions and discussions

The objective of this study was to provide users with a new perspective on Canadian international trade data by aggregating customs imports and exports according to the Broad Economic Categories (BEC) classification. This aggregation, consistent with the three classes of goods in the SNA – intermediate, capital and consumption goods – allowed for the analysis of the data and to shed some light on Canadian trade patterns in these three classes of goods over the period 2000 to 2016. Detailed description and definitions of the dimensions of BEC classification were provided. The basic BEC categories were successfully created. It was found that imports of intermediate goods accounted for 47.0% of total merchandise imports in 2016 while imports of consumption and capital goods made up 21.2% and 20.3% in 2016. Passenger motor cars represented 6.2% of total imports in 2016. Also, in 2016, 58.1% of export value was in exports of intermediate goods. By comparison, the share of consumption goods, capital goods and passenger motor cars reached 12.4%, 9.0% and 12.4%, respectively, in 2016.

Canada has consistently been a net exporter of intermediate goods over the period 2000 to 2016. Despite a declining share in both exports and imports over the period 2000 to 2016, the U.S. still remains the top-destination (71.6%) of Canadian intermediate goods exports and the top source of intermediate goods imports (56.5%). To some extent, trade statistics reflect the proximity, openness and size of the U.S. market. However, the growth rate of Canadian intermediate goods exports was the strongest with regard to India and China, while the growth rate of Canadian intermediate imports was the most robust with respect to China, Brazil and Mexico, all emerging economies. In the case of China, the growth rate of intermediate goods imports from that country had a drastic impact on its share that rose from 1.4% in 2000 to 8.2% in 2016.

Intermediate goods trade between Canada and the U.S. appears to be intra-industry trade as processed industrial supplies, parts and accessories of transport equipment and parts and accessories of capital goods were among the main BEC categories traded in both exports and imports in 2016.

Over the period 2000 to 2016, Canada imported more consumption goods than it exported and the gap has been widening since 2000. In 2016, 41.2% of consumption goods imports were sourced from the U.S., followed by China (20.4%) and Mexico (4.9%). For China, it has the largest share of either imports or exports and in any category of traded goods (intermediate, consumption and capital goods). Vietnam is increasingly a supplier of consumption goods to Canada. Not only, it is the fifth-largest source of consumption goods imports, but also their growth rate was the strongest (18.6%) over the period 2000 to 2016.

In 2016, 73.7% of consumption goods exports were bound for the U.S. while (3.3%), (3.0%) and (2.6%) were destined for Japan, China and India, respectively. China (17.7%), India (15.7%) and Italy (13.9%) had the strongest growth rates over the period 2000 to 2016.

Canada's trade with the U.S. in consumption goods is also intra-industry trade as both primary and processed food and beverages, and non-durable consumer goods were found in main imports and exports of consumption goods. The three types of consumer goods (semi-durable, durable and non-durable) made the list of main imports from China. Primary food and beverages, mainly for household consumption, non-durable consumer goods and semi-durable consumer goods were also the largest imports from Mexico in 2016.

As with consumption goods, Canada was consistently a net importer of capital goods over the period 2000 to 2016, and the gap has widened since the 2009 recession. The growth rate of capital goods imports outpaced that of capital goods exports by a wide margin (3.1% vs -1.6%), over the period 2000 to 2016.

In 2016, 48.2% of imports in capital goods mostly originated from the U.S., followed by China (19.0%) and Mexico (8.8%). China's share of imports has increased more than 10 times in 16 years.

In 2016, 72.5% of capital goods exports were destined for the U.S. while 2.9% and 2.5% were bound for China and the U.K. Malta was the fourth-largest destination of capital goods exports, mainly aircrafts. While the United States was the largest destination, capital goods exports to the U.S. nonetheless, declined by an average of 2.8% over the period 2000 to 2016.

The results of this study, in particular the constructed CANSIM Table 228-0081 and the trade database of BEC4 categories correlated to the HS 6-digit level, may be useful to other analysts looking into characterizing Canada's trade patterns in intermediate, consumer and capital goods with its main trading partners.

References

Miroudot, S., Lanz, R. and A. Ragoussis. 2009. *Trade in Intermediate Goods and Services*. OECD Trade Policy Papers, No. 93, OECD Publishing, Paris.

Sturgeon, T. and O. Memedovic. 2011. *Mapping Global Value Chains: Intermediate Goods Trade and Structural Change in the World Economy.* UNIDO, Development Policy and Strategic Research Branch, Working Paper 05/2010, Vienna.

United Nations. 2003. *Classification by Broad Economic Categories. Revision 4*, Department of Economic and Social Affairs, Statistics Division, Statistical Papers, No. 53 Rev.4, New York.

United Nations. 2016. *Classification by Broad Economic Categories, Revision 5.* Department of Economic and Social Affairs, Statistics Division, Statistical Papers, No. 53 Rev.5, New York.