Economic Impact of the Co-operative Sector in Canada

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co-operatives and mutuals | coopératives et mutuelles
canada

Executive Summary

The economic impact analysis detailed in this report was conducted in 2019 using 2015 data (the most current and complete data available at the time). This analysis uses the input-output economic model, with data provided by individual co-ops, the credit union system, Innovation, Science and Economic Development Canada (ISED), and Statistics Canada. This paper quantifies the direct, indirect and induced (spinoff) impacts of co-ops and credit unions in Canada. Economic impact is measured in terms of contribution to gross domestic product (GDP), numbers of jobs created in full-time equivalents, wages and taxes paid.

The purpose of this research is to provide a comprehensive picture of co-operatives in Canada, including descriptive statistics from 2015, trends over ten- and five-year periods, as well as the economic impact of the sector. The scope of this study attempts to cover all reporting co-operatives activity in Canada. Innovation, Science and Economic Development Canada (ISED) defines co-operatives as, "a legally incorporated corporation that is owned by an association of persons seeking to satisfy common needs such as access to products or services, sale of their products or services, or employment" (Industry Canada, 2015). For the purpose of this study, we use this definition for the non-financial co-operatives, as well as including credit unions, *caisses populaires* and mutuals to capture a picture of the whole co-operative sector.

Data from 2010 and 2015 was analysed using the input-output economic model, to determine the economic impact of the co-operative sector on the Canadian economy in terms of direct, indirect and induced impacts. These impacts can be understood as the following:

- Direct impacts: revenue, jobs, and taxes generated by co-operatives.
- Spinoff impacts include:
  - Indirect impacts: revenue, jobs, and taxes generated by enterprises that supply co-operatives.
  - Induced impacts: revenue, jobs, and taxes generated from spending by direct and indirect employment; spending by employees of co-operatives, employees of suppliers to co-operatives, and their families.

The input-output model was used because it is suitable to the diverse nature of co-operatives in Canada, and it is the most commonly used method of determining economic impact by economists. This method measures the ripples that are created in the economy by the integration of the operations of businesses. The size of these ripples is contingent upon the type of industry that is being measured. The economic impacts are quantified in terms of GDP, full time equivalent jobs, household income and total taxes paid.

This report provides empirical evidence as to the headcount and economic impact of the co-operative sector in Canada. In 2015, there were 5,730 co-operatives that reported in Canada. The volume of business was $85.9 billion with assets of $503.2 billion. Memberships totaled 31.8 million. The number of reported full-time equivalent employees was 182,253. This represents overall decrease of the sector at -5.9% between 2010 and 2015 of reporting co-operatives; yet 20.9% growth in volume of business, 42.5% growth in assets. There are more employees with a 2.4% growth and increased membership by 13.3%.

The input/output analysis shows the value-added GDP impact of the co-operative sector in Canada is $61.2 billion yearly and represents a growth of 12% since 2010. Furthermore, the sector injects $34.3 billion into household income, which is a 4.6% increase. Around $13 billion was paid in taxes to all orders of government, which has grown by 11.1% in five years. In terms of employment, the sector is responsible for providing over 666,146 (full time equivalents) direct and spinoff jobs in the nation. The co-operative sector in Canada is approximately 3.4% of the total economy and 3.6% of the jobs. Overall, the co-operative sector in Canada has shown steady and stable growth.

Biographies

This study was led by Dr. Fiona Duguid, Principal Researcher, Duguid Consulting, Research Fellow, Sobey School of Business – Saint Mary's University, and Adjunct Professor, Shannon School of Business – Cape Breton University, in partnership with George Karaphillis, Dean, Shannon School of Business – Cape Breton University.

Dr. Fiona Duguid, is a researcher based in Chelsea, Quebec. She previously worked for the Government of Canada's Co-operatives Secretariat and for the Canadian Co-operative Association. Her research focuses on co-operatives, social economy, sustainability and community economic development. She is a Research Fellow with the Centre of Excellence on Accounting and Reporting of Co-operatives at Saint Mary's University (SMU) in Halifax, Nova Scotia, and an instructor in the SMU Co-operative Business Management program and in the MBA program in Community Economic Development (CED) at Cape Breton University (Sydney, N.S.).

George Karaphillis is an Associate Professor as well as Dean of the Shannon School of Business, Cape Breton University. He served as Director of the MBA in Community Economic Development. He received his MBA from Virginia Tech. and his B.Eng from McGill University. George is interested in valuation research and has completed research studies in social finance and economic impact of the co-operative sector.

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Introduction

The economic impact analysis detailed in this report was conducted in 2019 using the 2015 data (the most current and complete data available at the time). This analysis uses the input-output economic model, with data provided by individual co-ops, the credit union system, Innovation, Science and Economic Development Canada (ISED), and Statistics Canada. This paper quantifies the direct, indirect and induced (spinoff) impacts of co-ops and credit unions in Canada. Economic impact is measured in terms of contribution to gross domestic product (GDP), numbers of jobs created in full-time equivalents, wages and taxes paid.

According to the International Co-operative Alliance it is estimated that "one in every six people are co-operators of any of the three million co-operatives on earth. Co-operatives employ 10% of the employed population and generate US$2.1 trillion in turnover while providing the services and infrastructure society needs to thrive" (International Co-operative Alliance, 2018). Co-operatives are a form of business distinct from other types of corporations because they bring members together to operate enterprises using democratic member control and following seven internationally recognized co-op principles (Majee & Hoyt, 2011). They use economic means to pursue social goals, thereby creating businesses with a social purpose (Novkovic, 2012). Co-operatives and social enterprises often have better social and economic outcomes than conventional businesses (Borzaga, Depedri, & Tortia, 2011). The co-operative business model allows members to have control over their local economies (Fulton & Hammond Ketilson, 1992).

The purpose of this research is to provide a comprehensive picture of co-operatives in Canada, including descriptive statistics from 2015, trends over ten- and five-year periods, as well as the economic impact of the sector.

Methodology

A small number of Canadian and United States studies on the economic impact of the co-operative sector in various jurisdictions have been conducted (Uzea, 2014). The economic impact of the co-operative sector proved significant in all of these studies (Uzea, 2014).

The scope of this study attempts to cover co-operative activity in Canada. ISED defines co-operatives as, "a legally incorporated corporation that is owned by an association of persons seeking to satisfy common needs such as access to products or services, sale of their products or services, or employment" (Industry Canada, 2015). In Canada, a co-operative must incorporate pursuant to a specific statute law at the provincial, territorial or federal level. These Acts govern all types of co-operatives, with the exception of financial co-operatives, which are governed by separate legislation. The nature of the co-operative business model and how they operate is largely defined by these Acts (Industry Canada, 2015). For the purpose of this study, we use this definition for the non-financial co-operatives, as well as including credit unions, caisse populaires and mutuals to capture a picture of the whole co-operative sector. This study also includes mutual corporations where possible because they are democratically owned corporations.[1] We recognize that there are enterprises that function as co-operatives although they are not formally incorporated as such; however, these types of enterprises and organizations are not included in this study.

1 The difference between co-operatives and mutuals is that mutual members do not contribute financial capital to the organization, whereas in co-operatives they do. Additionally, co-operatives are incorporated under Co-operative Acts either provincially or federally; whereas, because mutuals in Canada are in the insurance industry are incorporated under the Insurance Act.

The dataset for non-financial co-operatives in Canada was obtained from the ISED *Survey of Canadian Co-operatives* for 2010 and 2015.[2] The most recent data is from 2015. Data from 2010 was used to provide comparison and to show trends. The study only uses data from co-operatives that have submitted their annual survey to ISED Canada. Therefore, while the total number of incorporated non-financial co-operatives in Canada is reported by ISED to be approximately 7,887 in 2015; the study reflects the data from the 4,960 non-financial co-operatives that have reported to the ISED Canada survey. This is a 63% response rate. The data for financial co-operatives was obtained from Statistics Canada and represents 100% of the financial co-operatives in Canada.[3] The 2015 data for the insurance co-operatives and mutuals was obtained from the International Co-operative and Mutual Insurance Federation (ICMIF).

This study uses the input-output model to calculate the economic impact of the co-operative sector on the national economy. This method was used because the input-output model is the most commonly used methodology in economic assessments (Zeuli & Deller, 2007; Leclerc, 2010). Data from 2010 and 2015 was analysed using the input-output economic model, to determine the economic impact of the co-operative sector on the Canadian economy in terms of direct, indirect and induced impacts. These impacts can be understood as the following:

- Direct impacts: revenue, jobs, and taxes generated co-operatives.
- Spinoff impacts include:
    - Indirect impacts: revenue, jobs, and taxes generated by enterprises that supply co-operatives.
    - Induced impacts: revenue, jobs, and taxes generated from spending by direct and indirect employment; spending by employees of co-operatives, employees of suppliers to co-operatives, and their families.

The input-output model was also used because it is suitable to the diverse nature of co-operatives in Canada. This method measures the ripples that are created in the economy by the integration of the operations of businesses. The size of these ripples is contingent upon the type of industry that is being measured. For example, an industry that depends heavily on local labour creates a larger ripple in the economy than a similar sized industry that imports goods for sale relying on overseas labour. Interestingly, unlike conventional businesses, co-operatives tend to buy more of their inputs from local sources in their communities (Zeuli & Deller, 2007).

To analyse data from co-operatives, each co-operative is coded according to the industry they operate in, using standard North American Industry Classification System (NAICS) codes. These codes are standardized across Canada, Mexico and the United States and are used to classify businesses. The coded data is aggregated per sector code. This aggregated data is then analysed using provincial multiplier tables created by Statistics Canada. These multiplier tables are based on the NAICS codes and therefore utilize individual multipliers according to the size of the economic ripple created by each industry. The economic impacts are quantified in terms of Gross Domestic Product (GDP), full time equivalent jobs, household income and total taxes paid.

2 Innovation, Science and Economic Development Canada's data on non-financial co-operatives is derived from unweighted data gathered from the *Survey of Canadian Co-operatives* conducted by the department. This data comes directly from the reporting co-operatives that responded to this biennial survey. For the Province of Quebec, ISED collects aggregate data from the Ministry of the Economy, Science and Innovation. As of 2011, the Government of Quebec conducts surveys of Quebec co-operatives every two years (biennial).

3 Financial co-operative data was also obtained from the Canadian Credit Union Association and Desjardins.

Limitations

The limitations of this study are also present in other economic impact studies of the co-operative sector. For example, economic impact studies can only provide analysis on the co-operatives that report income to ISED Canada (in this case 63%) (ISED, 2018). Needless to say, the reported numbers of the 2015 impact study are conservative. This is a similar situation for other economic impact studies of the co-operative sector (e.g. Karaphillis et al., 2017; Duguid et al., 2015; Karaphillis et al., 2015). According to ISED analysts, co-operatives that do not respond to the Annual Survey are smaller co-operatives with little or no income to report, and all of the large co-operatives and almost all of the medium sized co-operatives are included. And finally, counterfactually, this model is not able to tell us what economies would look like in the absence of co-operatives which prevent market failures (Uzea and Duguid, 2017). The economic impact figures provided in this paper should be considered minimum estimates of the actual impact that co-operatives have on the Canadian economy.

Analysis

Head Count

The following analysis provides an examination of the headcount of the co-operative sector in Canada. Table 1 presents a complete picture of the reporting co-operatives in Canada in 2015.

Table 1: Profile of the Co-operative Sector in Canada (2015)

2015	# of co-ops[4]	Business Volume ($Billion)	Assets ($Billion)	Number of Memberships (Million)	Number of Employees
Non-financial Co-operatives	4,960	44.1	29.9	9.1	101,567
Credit Unions	650	15.1*	346.7	12.6	52,380**
Co-op Insurance	120	26.7	126.6	10.1	28,306
Total	**5,730**	**85.9**	**503.2**	**31.8[5]**	**182,253**

Source: Co-operatives in Canada 2015, ISED; CCUA National System results reports, ICMIF national reports
* Source: Statistics Canada Table 33-10-0006-01, accessed on January 30, 2019
** Source: Statistics Canada Table 36-10-0489-01, accessed on February 8, 2019

Table 1 brings the whole co-operative picture together for the co-operative sector in Canada. There were a total of 5,730 reporting co-operatives in 2015. The total volume of business was $85.9 billion, with over $503 billion in assets. The number of employees was over 182,000 and membership numbers sat at more than 31.8 million.

4 This is the number of co-ops who self-reported, rather than the number of incorporated co-ops. Throughout the paper the data refers to the reported figures, and is therefore underestimating the size of the sector

5 This figure represents the sum of the membership counts in non-financial and financial co-operatives. These are not all unique members, as many members would belong to more than one co-operative organization. The number of unique members is in the 10.1 – 31.8 million range.

Table 2 presents the profile of the co-operative sector in Canada in 2010.

Table 2: Profile of the Co-operative Sector in Canada (2010)

2010	# of co-ops	Business Volume ($Billion)	Assets ($Billion)	Number of Memberships (Million)	Number of Employees
Non-financial Co-operatives	5,065	33.7	20.5	7.4	86,372
Credit Unions	877	15.2	256.2	10.8	67,770
Co-op Insurance	150	22.1	76.5	10.0	23,888
Total	6,092	71.0	353.2	28.2	178,030

Source: Co-operatives in Canada 2015, ISED; CCUA National System results reports, ICMIF national reports

Table 2 brings to life the 2010 national co-operative sector picture for Canada. Including insurance mutuals, there were 6,092 reporting co-operatives in Canada. The total volume of business was almost $71 billion with over $353 billion in assets. The number of employees was over 178,000 and membership numbers totalled more than 28 million.

Table 3 presents the Canadian co-operative sector in 2010 and 2015 in terms of the number of reporting co-operatives, volume of business, and numbers of memberships and employees, in addition to the growth rate.

Table 3: Co-operative Sector in Canada (2010 and 2015) and Growth Rates

Co-operative Sector	2010	2015	Growth
Number of co-ops reporting	6,092	5,730	-5.9%
Volume of business ($Billions)	71.0	85.9	20.9%
Assets ($Billions)	353.2	503.2	42.5%
Number of memberships (Millions)	28.2	31.8	13.3%
Number of employees	178,030	182,253	2.4%

Table 3 brings together the 2010 and 2015 profiles of the co-operative sector to show trends and growth rates. What can be seen is a decline in total number of reporting co-operatives from 2010 to 2015 at a rate of -5.9%. The reason for the decrease could be the lower response rate for the non-financial co-operatives (ISED survey) in 2015; however, it is known that the top 50 large non-financial co-operatives are always included in the ISED dataset. In terms of volume of business during this period there was a 20.9% increase and a huge increase of 42.5% in assets. The number of memberships has increased by 13.3% and the total number of employees has grown modestly at 2.4%.

Table 4 brings to light the reporting non-financial co-operatives in Canada.

Table 4: Non-financial Co-operatives in Canada (2010 and 2015) and Growth Rates

Non-Financial Co-operatives	2010	2015	Growth
Number of co-ops reporting	5,065	4,960	-2.1%
Volume of Business of ($Billions)	33.7	44.1	30.9%
Assets ($Billions)	20.5	29.9	45.9%
Number of memberships (Millions)	7.4	9.1	23.0%
Number of employees	86,372	101,567	17.6%

When broken down by sectors (i.e., non-financial, credit unions and insurance) an interesting picture emerges. Table 4 portrays the non-financial co-operative sector in 2010 and 2015. The total number of co-operatives reporting is down slightly, which may be the result of participation in the ISED survey. In all other economic categories there is a modest increase from 2010 to 2015 with the total number of assets increasing significantly at 45.9%.

Table 5 illuminates the credit union sector in Canada.

Table 5: Credit Unions and Caisse Populaires in Canada (2010 and 2015) and Growth Rates

Credit Unions and Caisse Populaires	2010	2015	Growth
Number of co-ops reporting	877	650	-25.9%
Volume of Business of ($Billions)	15.2	15.1	-.7%
Assets ($Billions)	256.2	346.7	35.3%
Number of memberships (Millions)	10.8	12.6	16%
Number of employees	67,770	52,380	-22.7

According to Figure 5, the total number of financial co-operatives reporting numbers could be accounted for by the slight decrease in credit unions reporting, but more likely it is due to massive changes within the credit union sector. The number of credit unions declined by -25.9%. This is due to the high number of mergers and amalgamations within this sector. Hand in hand with the amalgamations and mergers is a decrease in the number of employees (-22.7%) and slight decline in the volume of business (-.7%), yet a large increase in assets (35.3%). The memberships increased by 16%.

Table 6 presents the co-operative insurance sector in 2010 and 2015 and the growth rates.

Table 6: Insurance Co-operatives and Mutuals in Canada (2010 and 2015) and Growth Rates

Insurance Co-operatives and Mutuals	2010	2015	Growth
Number of co-ops reporting	150	120	-20%
Volume of business ($Billions)	22.1	26.7	20.8%
Assets ($Billions)	76.5	126.6	65.5%
Number of memberships (Millions)	10.0	10.1	1%
Number of employees	23,888	28,306	18.5%

The insurance co-operative sector has also seen some changes over the five year period. There have been a number of demutualizations especially in the mutual sector thus resulting in lower reporting numbers (-20%). Despite this, the sector continues to grow expansively in terms of volume of business (20.8%), assets (65.5%), and employees (18.5) (Table 6). The number of memberships stayed about the same.

Table 7 and 8 provide more detail trends in the non-financial and credit union co-operatives sectors in Canada.

Table 7: Non-financial Co-operative Trends in Canada (2005-2015)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2015
Number of Co-operatives reporting [6]	5,710	5,751	5,795	5,686	5,642	5,094	5,257	5,048	5,276	4,960
Volume of Business ($M)	27,686	28,794	30,804	35,728	33,853	33,708	38,666	39,639	43,207	44,134
Assets ($M)	17,699	18,417	19,256	20,653	21,117	20,544	22,979	24,000	26,007	29,907
Memberships (thousands)	5,886	6,340	6,647	6,925	7,239	7,379	7,810	7,904	8,436	9,127
Employees	87,600	87,172	87,620	87,918	87,735	86,372	90,116	86,317	95,085	101,567

Source: Co-operatives in Canada 2015, ISED

As can be seen in Table 7, over the ten year time span for the most part there has been a steady downward trend in the total number of reporting non-financial co-operatives (-13%). Despite the total number of non-financial co-operatives decreasing, the volume of business tells a different story. It has increased by 59% over the 10-year period with some dips in 2009 and 2010 most likely a response to the global financial crisis. The assets have climbed at a steady pace increasing by 69%. Similarly, an increase has occurred in the number of employees with a 16% growth, as well as the number of memberships with a growth of 55%.

6 The number of co-operatives reporting varies from year to year, however during our discussions with Industry Canada we feel confident that the largest co-operatives do report each year.

The same analysis was conducted for the credit unions in Canada (Table 8).

Table 8: Credit Union Trends in Canada (2005-2015)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2015
Number of Credit Unions	1,158	1,108	1,059	1,008	945	877	826	771	724	650
Branches	3,465	3,424	3,404	3,341	3,302	3,253	3,162	3,117	3,030	2,914
Volume of Business ($M)*	10,871	12,201	14,121	15,916	12,980	15,151	15,585	14,529	14,514	15,078
Assets ($M)	181,307	196,108	212,069	231,288	245,107	256,172	278,477	295.929	310,791	346,714
Memberships (thousands)	10,661	10,815	10,846	11,222	10,818	10,763	10,730	10,230	10,157	12,600
Employees**	57,635	61,985	62,765	70,105	69,235	69,175	65,470	60,655	55,870	52,380

Source: CCUA National System Results Reports
* Source: Statistics Canada Table 33-10-0006-01, accessed on January 30, 2019
** Source: Statistics Canada Table 36-10-0489-01, accessed on February 8, 2019

Table 8 shows the ten year time span for the credit union sector. There has been a huge decrease due to amalgamations and mergers within this sector of reporting credit unions (-44%). This also includes a decrease in open branches at 16%. Despite this, the volume of business has increased over the ten year period by 39%, and assets have increased by a massive 91%. The total number of memberships has increased over the years (18%) and employees decreased by 9%. This suggests the credit union sector is consolidating, doing more business with an increased number of members, and with fewer employees.

Table 9 provides some other industries as a comparison to the co-operative sector.

Table 9: Comparison of Jobs in the Co-operative Sector to Other Industries (2015)

Industry	Jobs (FTE person-years equivalent)
Total Co-operative Sector	182,253
Postal service, couriers and messengers	173,095
Accounting, tax preparation, bookkeeping, payroll services	158,853
Motor vehicle, body, and parts manufacturing	128,476
Telecommunications	126,835
Utilities	103,450
Mining and quarrying	71,140

Source: Statistics Canada Table 36-10-0489-01

Table 9 draws on information about other industries from Statistics Canada. The co-operative sector in Canada employs more people than the postal service, couriers or messenger industry, as well as the accounting, tax preparation, bookkeeping and payroll industry. The co-operative sector tops motor vehicle, body and parts manufacturing; telecommunications; utilities; and mining and quarrying industries for full-time equivalent jobs.

Economic Impact Analysis

Next, the input-output model was employed to estimate the economic spinoff effects of non-financial and financial co-operatives. Revenue amounts were summarized by their NAICS industry code and economic multipliers (Statistics Canada, Table 15F0046XDB) were applied to the revenue amounts to estimate the economic impact of each sector. The economic multipliers are supposed to be applied to 'economic output' figures, which are very close to revenue. The revenue figures were adjusted for a number of sectors though, prior to entering them in the input-output model. 'Economic output' is a lower figure for some type of businesses: it is the gross margins for retail and wholesale co-ops; it is the revenue less interest paid to the Bank of Canada for the credit unions, and it is the premium billed less premiums paid for insurance co-ops. The direct impacts are the revenue, jobs, and taxes generated by the co-operative sector. The spinoff impacts are the indirect impacts including revenue, jobs, and taxes generated by enterprises that supply co-operatives; and the induced impacts, which are the revenue, jobs, and taxes generated from spending by direct and indirect employment, and the spending by employees of co-operatives, employees of suppliers to the co-operatives, and their families.

By using the input-output model, the direct and spinoff impacts are estimated representing the impact the co-operative sector has in the economy in any given year, as is demonstrated with 2015 figures below (Table 10).

Table 10: Economic Impacts of Canadian Co-operative Sector (2015)

	Direct	Spinoff	Total
Economic Value Add (GDP, $ Billions)			
Non-Financial Co-operatives	12.4	13.9	26.3
Credit Unions and Caisses Populaires	4.6	6.0	10.6
Co-op Insurance	9.5	14.8	24.3
Total			**61.2**
Jobs (FTEs, person-years equivalent)[7]			
Non-Financial Co-operatives	188,855	148,237	337,092
Credit Unions and Caisses Populaires	63,174	64,278	127,452
Co-op Insurance	38,967	162,635	201,602
Total			**666,146**
Household Income ($ Billions)			
Non-Financial Co-operatives	7.6	7.1	14.7
Credit Unions and Caisses Populaires	3.9	3.3	7.2
Co-op Insurance	3.5	8.9	12.4
Total			**34.3**

7 The total direct jobs numbers should be similar to the headcount numbers; however, a number of co-operatives and credit unions do not report employment figures or do not report them accurately – especially part-time or seasonal jobs – for example, housing co-operatives tend to report no employees, but they of course directly employ people. The Statistics Canada multipliers capture this; therefore, these figures are conservative since a large portion of co-operatives are not reporting jobs numbers.

Taxes ($ Billions)	
Co-op Production taxes[8]	5.2
Co-op Product taxes[9]	1.5
Household Income Taxes[10]	4.5
Household Sales Taxes[11]	1.4
Household Property Taxes[12]	0.4
Total	**13.0**

Table 10 presents the contributions of the co-operative sector to the Canadian economy. The GDP is the value-add of the sector to the economy, thus closer to the earnings before interest and tax; and therefore much lower than the volume of business. Volume of business is the top line number. The household income represents the salaries and wages earned by employees of co-operatives, salaries earned by employees of the suppliers of co-operatives, and salaries earned by employees of companies that sell goods and services consumed by the families of co-op employees and by the families of suppliers to co-operatives.

The co-operative sector in Canada accounted for over $61.2 billion of the GDP. The non-financial co-operatives and the insurance co-operatives make up more than 80% of the contribution to the GDP. In terms of full-time equivalent jobs, the co-operative sector accounted for over 666,000 people and provided $34.3 billion in household income, again with the non-financial and insurance co-operatives accounting for the bulk of this. The taxes paid to all orders of government totaled $13 billion. According to Table 10, the non-financial co-operatives' numbers are higher than financial co-operatives in all economic indicators, and only a little bit more so for the insurance sector.

Table 11 presents the economic impact analysis for the co-operative sector in 2010. This data does not include mutuals, but does include insurance co-operatives. The 2015 numbers are higher than the 2010 numbers because of, first, growth in the sector and, second, the addition of the mutuals. It should be said that the mutuals do not have a large effect in the input/output analysis.

8 Taxes on production paid by co-operatives and their suppliers (i.e., property taxes, permits and licenses etc.) calculated using Statistics Canada Provincial Multipliers – GDP Components table.

9 Taxes on product paid by co-operatives and their suppliers, for example value-add sales taxes and duties calculated using product tax multipliers, Statistics Canada Provincial Multipliers – GDP Components table.

10 Income tax paid by employees of co-operatives, their suppliers, and spinoff employment calculated by using average rate of 13.247% of personal income, derived from Statistics Canada Table 36-10-0224-01, accessed February 8, 2019; and Receiver General for Canada, Public Accounts of Canada 2016, Volume 1, 2016, table of *Revenues, expenses, and accumulated deficit.*

11 Using average sales tax rate of 4.213% of personal income, derived from Statistics Canada Table 36-10-0224-01, accessed February 8, 2019; and Revenue Canada GST/HST Statistics Tables, table of *Value of net tax by jurisdiction.*

12 Property taxes paid by employees of co-operatives, their suppliers, and spinoff employment. Calculated by using average rate of 1.229% of income, derived from Statistics Canada Table 36-10-0224-01; accessed on February 8, 2019.

Table 11: Economic Impacts of Canadian Co-operative Sector (2010)

	Direct	Spinoff	Total
Economic Value Add (GDP, $ Billion)			
Non-Financial Co-operatives	7.4	10.9	18.3
Financial Co-operatives	15.1	21.2	36.3
Total			**54.6**
Jobs (FTEs, person-years equivalent)			
Non-Financial Co-operatives	130,800	123,200	254,000
Financial Co-operatives	139,500	220,800	360,300
Total			**614,300**
Household Income ($ Billion)			
Non-Financial Co-operatives	5.4	5.7	11.1
Financial Co-operatives	9.4	12.3	21.7
Total			**32.8**
Taxes ($ Billion)			
Co-op Production taxes[13]			2.7
Co-op Product taxes[14]			.6
Household Income Taxes[15]			5.5
Household Sales Taxes[16]			2.5
Household Property Taxes[17]			.4
Total			**11.7**

In Table 11, the 2010 economic impact analysis is presented. The total contribution to GDP from co-operatives was $54.6 billion to the Canadian economy. In 2010, the spread between the non-financial and financial co-operatives is fairly similar in terms of contribution to GDP. Full-time equivalent jobs rounds out to be 614,300. The total household income is $32.8 billion accounted by the co-operative sector, with the financial co-operatives coming out on top. The taxes paid to all orders of government totals $11.7 billion for the co-operative sector and its spinoffs.

13 Taxes on production paid by co-operatives and their suppliers (i.e. property taxes, permits and licenses etc.) calculated using Statistics Canada Provincial Multipliers – GDP Components table.

14 Taxes on product paid by co-operatives and their suppliers, for example value-add sales taxes and duties calculated using product tax multipliers, Statistics Canada Provincial Multipliers – GDP Components table.

15 Income tax paid by employees of co-operatives, their suppliers, and spinoff employment calculated by using average rate derived from Statistics Canada CANSIM Table 384-0040, Current Accounts – Households.

16 Using average sales rate, derived from Input-Output Final Demand -Total taxes on Product Margins table, Statistics Canada.

17 Property taxes paid by employees of co-operatives, their suppliers, and spinoff employment. Calculated by using average rate derived from Statistics Canada CANSIM Table 384-0040, Current Accounts – Households, Statistics Canada.

After we have calculated total direct, indirect and induced impacts using the input/output method with our raw data and our multiplier figures, we are able to make year-to-year comparisons. For this study we have compared the economic contribution of the co-operative sector in 2015 to the same contributions in 2010. This is shown below in Table 12.

Table 12: Comparison of Total Economic Impact of the Canadian Co-operative Sector (2010 and 2015)

	Total 2010[18]	Total 2015	% Change
Economic Value Add GDP ($ Billions)	54.6	61.2	12%
Total Jobs (FTE person-years equivalent)	614,300	666,146	8.4%
Total Household Income ($ Billions)	32.8	34.3	4.6%
Total Taxes Paid ($ Billions)	**11.7**	**13.0**	**11.1%**

From 2010 to 2015, there has been modest growth in the co-operative sector. The economic value-add to GDP has grown by 12% over the five year period. There has been a growth in jobs (FTE person-equivalent) of 8.4%. The total household income paid has increased by 4.6%. Taxes paid to all orders of government has increased by 11.1%.

The following table (Table 13), illuminates the contributions of the co-operative sector to the overall Canadian economy.

Table 13: Comparison of Economic Impact of the Canadian Co-operative Sector to the Total Canadian Economy (2015)

	Co-operative Sector	Canadian	% of National Economy
Economic Value Add GDP ($B)	61.2	1,813.9*	3.4%
Total Jobs	**666,146**	**18,282,520****	**3.6%**

*Source: Statistics Canada Table 36-10-0434-03
**Source: Statistics Canada Table 36-10-0489-01

The contribution of the co-operative sector to Canada's GDP in 2015 was estimated at $61.2B and that represents 3.4% of the national figure of $1,813.9 billion. The contribution of the co-operative sector to Canada's total jobs was estimated at 666,146. Of the total 18,282,520 jobs in 2015 in Canada the co-operative sector is 3.6%.

18 2010 does not include mutuals; however, as stated the mutuals do not have a large effect in terms of the input/output model.

Summary

This report provides empirical evidence as to the headcount and economic impact of the co-operative sector in Canada. In 2015, 5,730 co-operatives responded to surveys. In comparison with the 2010 surveys, 5.9% fewer co-operatives responded than in 2015 . Although there were fewer responding co-operatives in 2015, there was an increase in the volume of business to $ 85.9 billion, and an increase in their assets to $ 503.2 billion. Memberships totalled 31.8 million. The number of reported full-time equivalent employees was 182,253. Between 2010 and 2015, the co-operative sector has grown by 20.9% in volume of business and reported a 42.4% increase in assets. There are more employees with a 2.4% growth and increased in memberships by 13.2%.

The input/output analysis shows the value-added GDP impact of the co-operative sector in Canada is $61.2 billion yearly and represents a growth of 12% since 2010. Furthermore, the sector injects $34.3 billion into household income, which is a 4.6% increase. Around $13 billion was paid in taxes to all orders of government, which has grown by 11.1% in five years. In terms of employment, the sector is responsible for providing over 666,146 (full time equivalents) direct and spinoff jobs in the nation. The co-operative sector in Canada is approximately 3.4% of the total economy and 3.6% of the jobs. Overall, the co-operative sector in Canada has shown steady and stable growth.

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