

# Taxes versus the Necessities of Life: The Canadian Consumer Tax Index, 2016 edition

by Milagros Palacios,  
Charles Lammam,  
and Feixue Ren



## SUMMARY

■ The Canadian Consumer Tax Index tracks the total tax bill of the average Canadian family from 1961 to 2015. Including all types of taxes, that bill has increased by 1,939% since 1961.

■ Taxes have grown much more rapidly than any other single expenditure for the average Canadian family: expenditures on shelter increased by 1,425%, clothing by 746%, and food by 645% from 1961 to 2015.

■ The 1,939% increase in the tax bill has also greatly outpaced the increase in the Consumer Price Index (706%), which measures the average price that consumers pay for food, shelter,

clothing, transportation, health and personal care, education, and other items.

■ The average Canadian family now spends more of its income on taxes (42.4%) than it does on basic necessities such as food, shelter, and clothing combined (37.6%). By comparison, 33.5% of the average family's income went to pay taxes in 1961 while 56.5% went to basic necessities.

■ In 2015, the average Canadian family earned an income of \$80,593 and paid total taxes equaling \$34,154 (42.4%). In 1961, the average family had an income of \$5,000 and paid a total tax bill of \$1,675 (33.5%).

## Introduction

The Canadian tax system is complex and there is no single number that can give us a complete idea of who pays how much. That said, the Fraser Institute annually calculates the most comprehensive and easily understood indicator of the overall tax bill of the average Canadian family: Tax Freedom Day (see Palacios et al., 2016). This publication draws from those calculations and examines what has happened to the tax bill of the average Canadian family over the past 54 years.<sup>1</sup> To do this, we have constructed an index of the tax bill of the average Canadian family, the Canadian Consumer Tax Index, for the period from 1961 to 2015.

## The total tax bill

In order to calculate the total tax bill of the average Canadian family, we add up all the various taxes that the family pays to federal, provincial, and local governments. This includes income taxes, payroll taxes, health taxes, sales taxes, property taxes, fuel taxes, vehicle taxes, import taxes, alcohol and tobacco taxes, and the list goes on. Average Canadians also pay the taxes levied on businesses. Although businesses pay these taxes directly, the cost of business taxation is ultimately passed onto ordinary Canadians.<sup>2</sup>

<sup>1</sup> The Tax Freedom Day calculations are for the average Canadian family with two or more people. The average family in this publication includes families and unattached individuals. That is why the data for the same year are different. For instance, in 2015 the tax rate for the average Canadian family with two or more people was 43.5% and for the average family including unattached individuals it was 42.4% (see Palacios et al., 2016).

<sup>2</sup> See Clemens and Veldhuis (2003) for a discussion of who actually pays business taxes and Ebrahimi and Vaillancourt (2016) for empirical evidence in Canada on the incidence of business taxes.

**Table 1: Tax bill of the average Canadian family (families and unattached individuals), 2015**

	In dollars (\$)	As % of total taxes
<b>Taxes</b>		
Income taxes	10,616	31.1%
Payroll & health taxes	7,160	21.0%
Sales taxes	4,973	14.6%
Property taxes	3,832	11.2%
Profit tax	3,631	10.6%
Liquor, tobacco, amusement, & other excise taxes	1,805	5.3%
Auto, fuel, & motor vehicle licence taxes	871	2.6%
Other taxes	773	2.3%
Natural resource taxes	188	0.6%
Import duties	305	0.9%
<b>Total taxes</b>	<b>\$34,154</b>	
<b>Total cash income</b>	<b>\$80,593</b>	
<b>Taxes as a percentage of cash income</b>	<b>42.4%</b>	

Source: The Fraser Institute's Canadian Tax Simulator, 2016.

In 2015, the average Canadian family, including both families and unattached individuals, earned cash income of \$80,593 and paid total taxes equaling \$34,154 (table 1).<sup>3</sup> In other words, the total tax bill of the average Canadian family in 2015 amounted to 42.4% of cash income.

<sup>3</sup> The tax and income calculations are based on the methodology used in Palacios et al. (2016). Cash income is used to convey the size of the total tax bill imposed on Canadian families and includes wages and salaries, income from farm operations, unincorporated non-farm income, interest, dividends, private and government pension payments, old age pension payments, and other transfers from government.

# The Canadian Consumer Tax Index, 2016

## The Canadian Consumer Tax Index

The Canadian Consumer Tax Index tracks the total tax bill paid by a Canadian family with average income. While each of these families had average income in the year selected, the family is not the same one from year to year. The objective is not to trace the tax experience of a particular family, but rather to plot the experience of a family that was average in each year.<sup>4</sup>

The “consumer” in question is the taxpaying family, which can be thought of as consuming government services. Much like the Consumer Price Index calculated by Statistics Canada, which measures the average price that consumers pay for the goods and services that they buy of their own choice, the Canadian Consumer Tax Index measures the price of goods and services that government buys on behalf of Canadians.

The Canadian Consumer Tax Index thus answers the following question: How has the tax burden of the average family changed since 1961, bearing in mind that the average family has itself changed in that period?

Table 2 presents the average cash income and total tax bill paid by the average Canadian family from 1961 to 2015. In 1961, the average Canadian family earned an income of \$5,000 and paid \$1,675 in taxes (33.5%). In 2015, the average Canadian family earned an income of \$80,593 and paid a total of \$34,154 in taxes (42.4%).

The basis of the Canadian Consumer Tax Index is the total tax calculation presented in table 2.

<sup>4</sup> According to the latest Statistics Canada Survey of Household Spending, we can note, for example, that in 2014 the average family is headed by an older person who is more likely to own a car and a house, and has fewer members than the average family in 1961 (Dominion Bureau of Statistics 1962, and Statistics Canada 2016d).

**Table 2: Taxes paid by the average Canadian family (families and unattached individuals), 1961-2015**

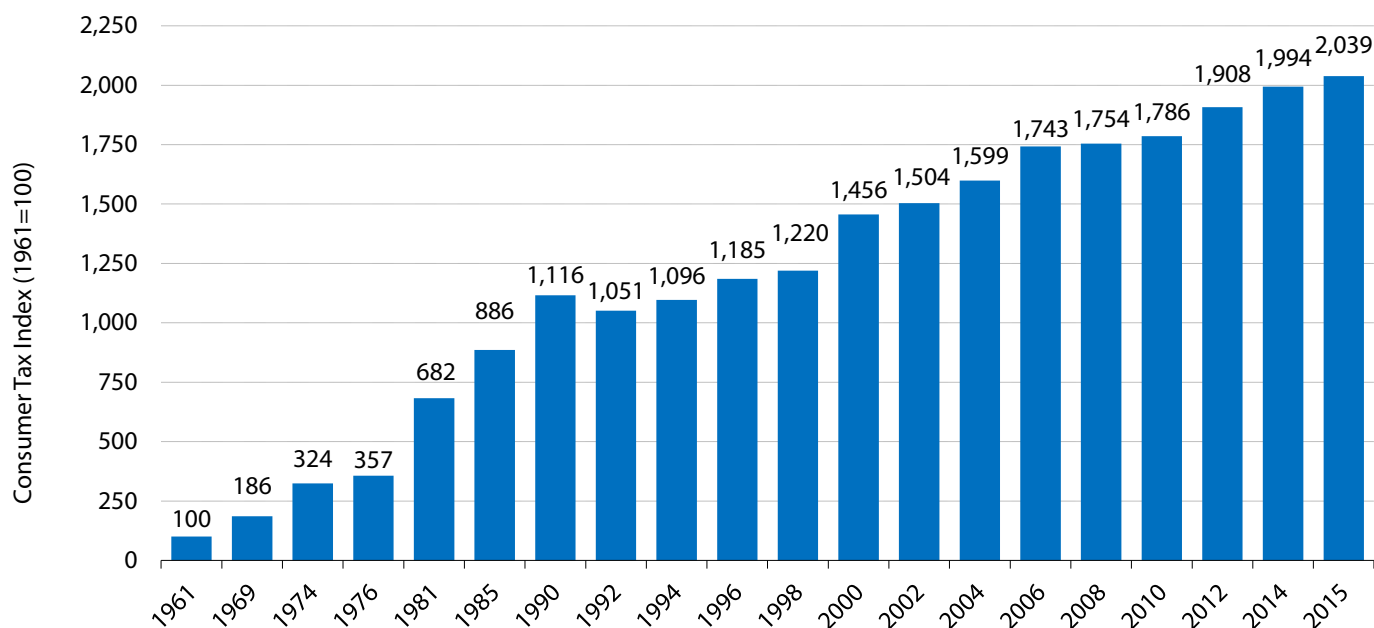
Year	Average cash income (\$)	Tax bill (\$)	Increase in tax bill over base year (%)
1961	5,000	1,675	—
1969	8,000	3,117	86
1974	12,500	5,429	224
1976	16,500	5,979	257
1981	27,980	11,429	582
1985	32,309	14,834	786
1990	43,170	18,693	1,016
1992	43,516	17,612	951
1994	44,095	18,366	996
1996	45,370	19,844	1,085
1998	45,117	20,438	1,120
2000	52,608	24,389	1,356
2002	54,820	25,189	1,404
2004	58,685	26,776	1,499
2006	64,890	29,196	1,643
2008	70,310	29,385	1,654
2010	72,024	29,919	1,686
2012	75,839	31,953	1,808
2014	79,079	33,400	1,894
2015	80,593	34,154	1,939

Source: The Fraser Institute's Canadian Tax Simulator, 2016.

Specifically, the Canadian Consumer Tax Index is constructed by dividing the tax bill of an average Canadian family by the average tax bill of an average family in 1961, and then multiplying by 100, for each of the years included in the index. The Canadian Consumer Tax Index has a value of 100 in 1961; in subsequent years, values reflect the percentage increase over the 1961 value. The value of the Canadian Consumer

# The Canadian Consumer Tax Index, 2016

Figure 1: The Canadian Consumer Tax Index, 1961-2015



Sources: The Fraser Institute's Canadian Tax Simulator 2016; calculations by authors.

Tax Index for 2015 is 2,039 (figure 1), which indicates that the tax bill of the average Canadian family has increased by 1,939% since 1961.

Part of that increase reflects the effects of inflation. In order to eliminate the portion of the increase that is due to the erosion of purchasing power, we also calculate the tax index in real dollars, that is, in dollars with 2015 purchasing power. While this adjustment has the effect of reducing the steepness of the index's path over time, the inflation-adjusted Consumer Tax Index nevertheless increased by 152.9% over the period (see table 3).

## What the Canadian Consumer Tax Index shows

The interaction of a number of factors produced the dramatic increase in the average family's tax bill from 1961 to 2015. Among those factors is, first, a sizeable increase in incomes

over the period: 1,512% since 1961. Even with no changes in tax rates, the family's tax bill would have increased substantially; growth in family income alone would have produced an increase in the tax bill from \$1,675 in 1961 to \$26,999 in 2015. Second, the average family faced a tax rate increase from 33.5% in 1961 to 42.4% in 2015.

## Balanced Budget Consumer Tax Index

Unfortunately, the federal and provincial governments have reverted to deficits to finance their expenditures in recent years.<sup>5</sup> Of course, these deficits must one day be paid for by taxes. Deficits should therefore be considered as deferred taxation. Figure 2 shows what the Canadian Consumer Tax Index looks like when the

<sup>5</sup> In fiscal year 2015/16, the federal and eight provincial governments ran operating deficits.

**Table 3: Inflation-adjusted tax bill and percent change since 1961**

Year	Tax bill (2015\$)	Percent change since 1961
1961	13,507	—
1969	20,031	48.3
1974	26,233	94.2
1976	24,339	80.2
1981	29,231	116.4
1985	29,809	120.7
1990	30,185	123.5
1992	26,544	96.5
1994	27,132	100.9
1996	28,260	109.2
1998	28,340	109.8
2000	32,365	139.6
2002	31,890	136.1
2004	32,377	139.7
2006	33,880	150.8
2008	32,604	141.4
2010	32,513	140.7
2012	33,240	146.1
2014	33,773	150.0
2015	34,154	152.9

Sources: The Fraser Institute's Canadian Tax Simulator, 2016; Statistics Canada, 2016a; calculations by authors.

annual deficits of governments are added to the tax bill.

The total tax bill of the average family would be higher than it actually is if, instead of financing its expenditures with deficits, all Canadian governments had simply increased tax rates to balance their budgets. Indeed, the Canadian Con-

sumer Tax Index would have increased to 2,092 if deferred taxation was added to the average family's total tax bill. Once deferred taxes are included, the tax bill of the average Canadian family has increased by 1,992% since 1961.

## Taxes versus the necessities of life

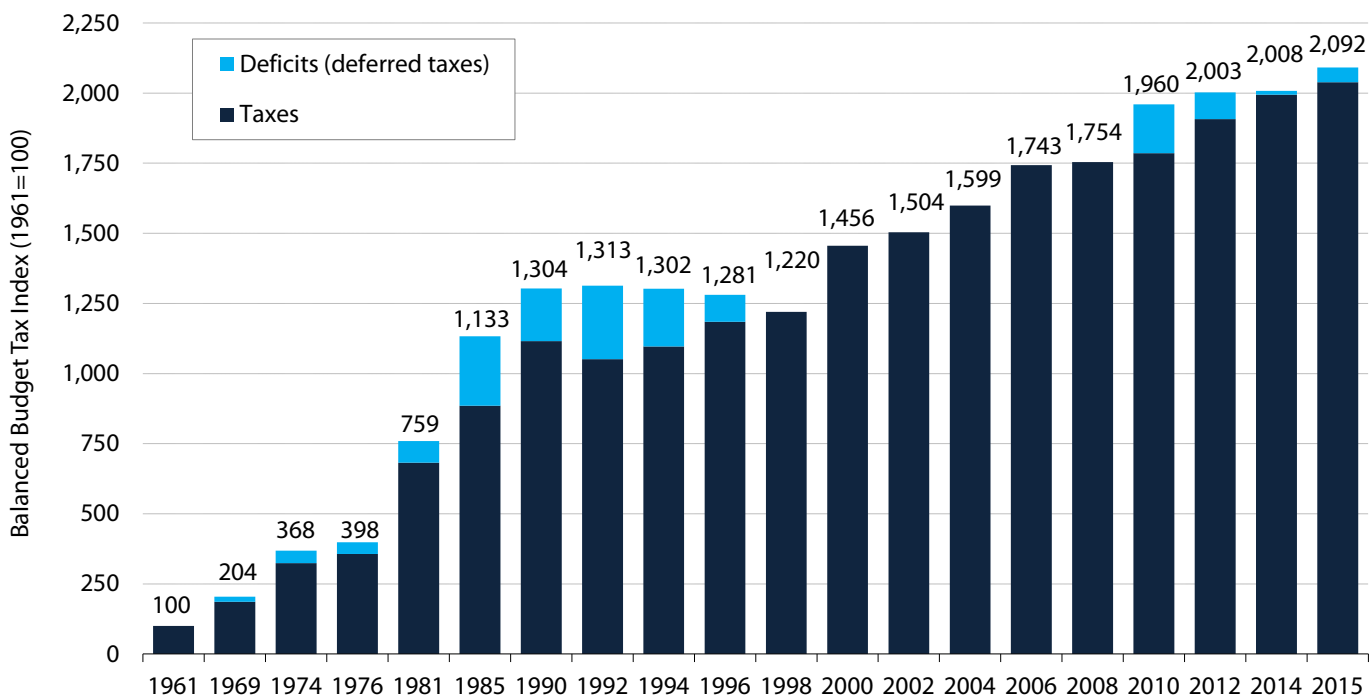
One way to gauge the significance of the increased tax bill on Canadian families is by comparing the evolution of the tax take with the average family's other major expenditures. Table 4 and figure 3 compare family cash income and total taxes paid with the family's expenditures on shelter, food, and clothing. It is clear that taxes have become the most significant item in family budgets, and that taxes have grown more rapidly than any other single item.

In 1961, the average family spent 56.5% of its cash income to pay for shelter, food, and clothing. In the same year, 33.5% of the family's income went to governments as tax. By 1981, the spending demands had roughly evened up: 40.8% of an average family's income went to governments in the form of taxes, while 40.5% was spent to provide it with shelter, food, and clothing. After crossing paths again in 1992, the situation in 2015 is reversed from 1961: the average family spent 37.6% of its income on the necessities of life while 42.4% of its income went to taxes (see figures 4 and 5).

Table 5 and figure 6 show the Canadian Consumer Tax Index relative to income and other expenditure indices. Average cash income rose by 1,512% from 1961 to 2015, overall consumer prices rose by 706%, expenditures on shelter by 1,425%, food by 645%, and clothing by 746%. Meanwhile, the tax bill of the average family grew by 1,939%.

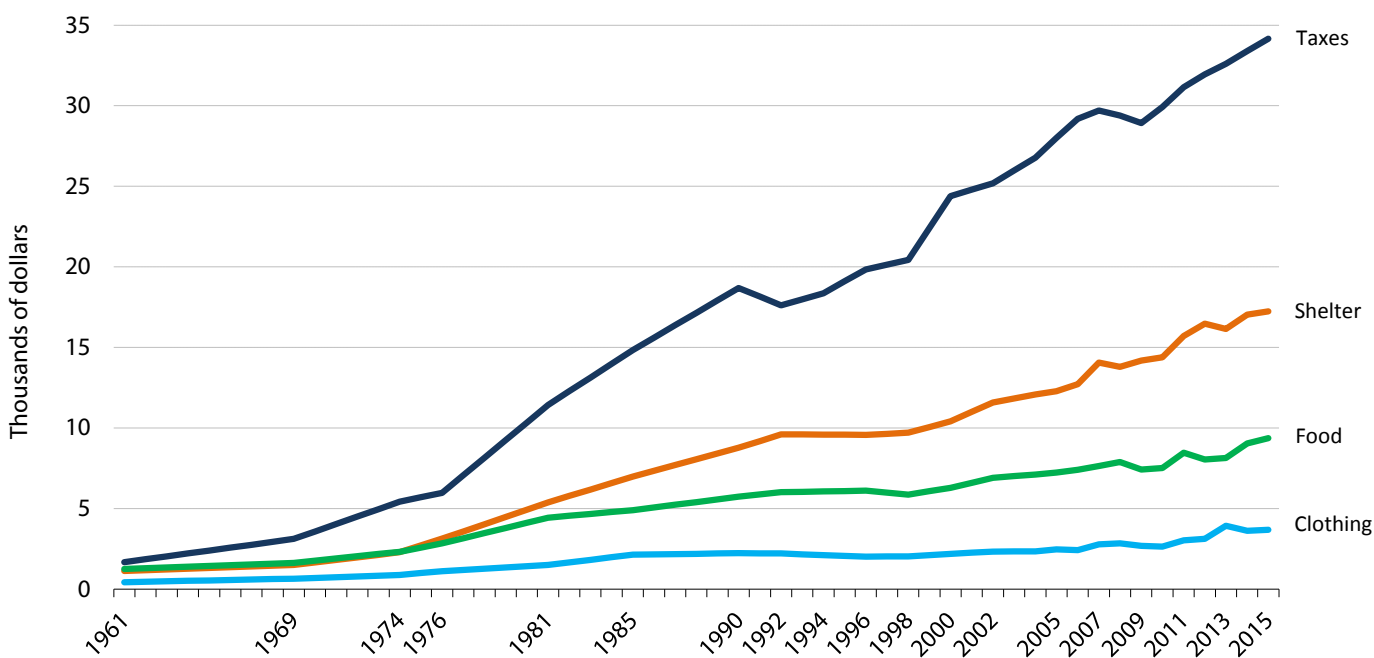
# The Canadian Consumer Tax Index, 2016

Figure 2: The Balanced Budget Tax Index, 1961-2015



Sources: The Fraser Institute's Canadian Tax Simulator, 2016; Statistics Canada, 2016b; calculations by authors.

Figure 3: Taxes and basic expenditures of the average Canadian family, 1961-2015



Source: Table 4.

# The Canadian Consumer Tax Index, 2016

**Table 4: Income, taxes, and selected expenditures of the average Canadian family (nominal dollars)**

Year	Average cash income	Average tax bill	Average expenditures		
			Shelter	Food	Clothing
1961	5,000	1,675	1,130	1,259	435
1969	8,000	3,117	1,497	1,634	654
1974	12,500	5,429	2,294	2,320	886
1976	16,500	5,979	3,134	2,838	1,119
1981	27,980	11,429	5,381	4,440	1,499
1985	32,309	14,834	6,984	4,899	2,141
1990	43,170	18,693	8,776	5,745	2,234
1992	43,516	17,612	9,607	6,024	2,215
1994	44,095	18,366	9,592	6,066	2,116
1996	45,370	19,844	9,577	6,108	2,017
1998	45,117	20,438	9,711	5,860	2,039
2000	52,608	24,389	10,409	6,294	2,187
2002	54,820	25,189	11,592	6,917	2,337
2004	58,685	26,776	12,078	7,107	2,340
2006	64,890	29,196	12,719	7,415	2,419
2008	70,310	29,385	13,803	7,897	2,851
2010	72,024	29,919	14,384	7,521	2,642
2012	75,839	31,953	16,477	8,042	3,127
2014	79,079	33,400	17,044	9,041	3,627
2015	80,593	34,154	17,237	9,374	3,682

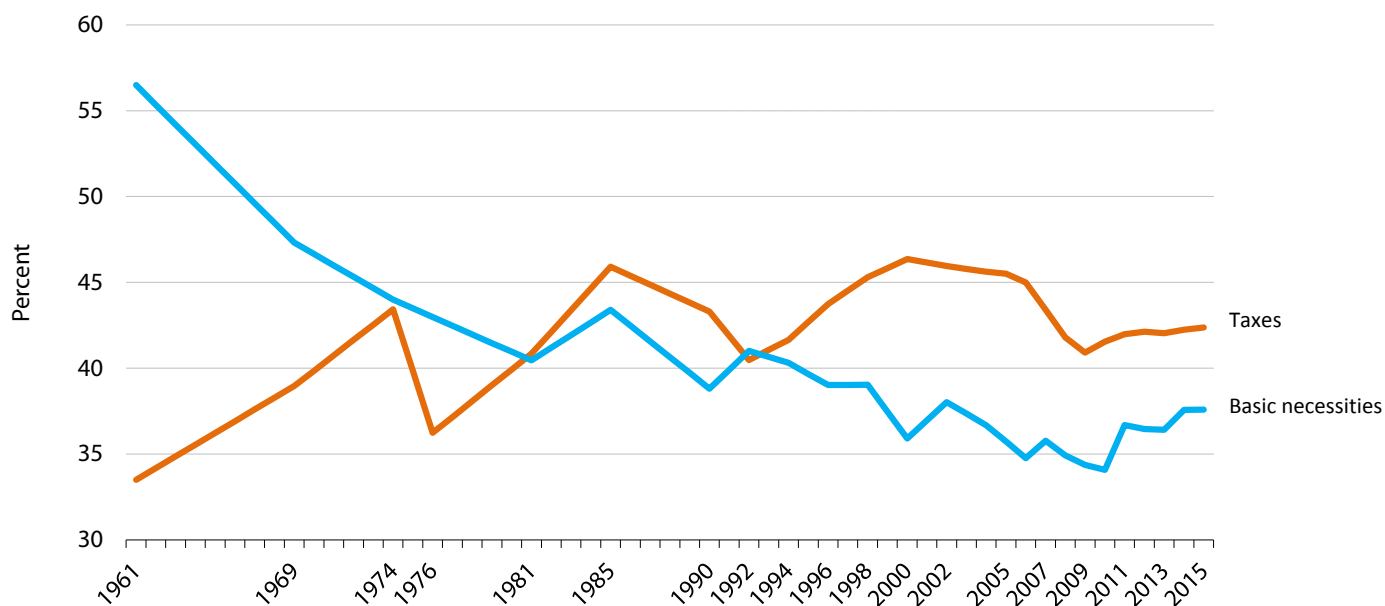
Sources: Statistics Canada (various issues), Urban Family Expenditure; Statistics Canada (various issues), Family Expenditures in Canada; Statistics Canada (various issues), Spending Patterns in Canada; Statistics Canada, 2011, 2013, 2014, 2015, 2016a, and 2016c; The Fraser Institute's Canadian Tax Simulator, 2016; calculations by authors.

Notes:

- (1) All expenditure items include indirect taxes.
- (2) Average shelter expenditures for years prior to 1998 are estimates. The estimate is to take account of a change in the definition of shelter between the Family Expenditure Survey and the Survey of Household Expenditures.
- (3) Expenditures for 2010 were estimated using the results of the 2009 Survey of Household Spending and adjusting final results for inflation.
- (4) Expenditures for 2015 were estimated using the results of the 2014 Survey of Household Spending and adjusting final results for inflation.

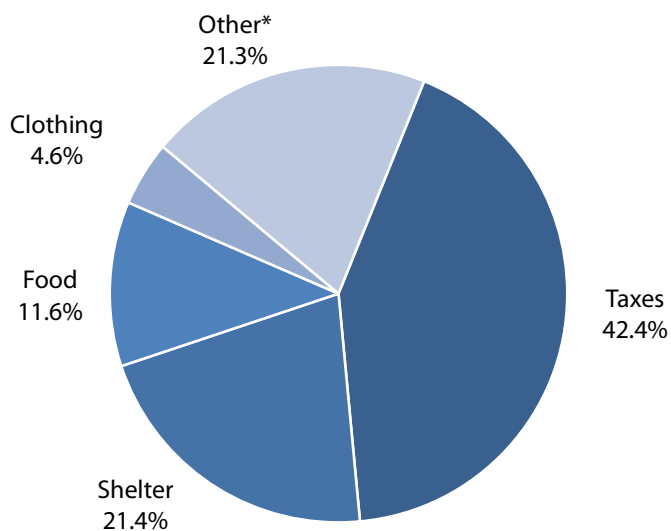
# The Canadian Consumer Tax Index, 2016

Figure 4: Taxes and basic necessities as percentage of cash income, 1961-2015



Source: Table 4.

Figure 5: The average Canadian family's expenditures as percentage of cash income, 2015



\*"Other expenditures" include household operations (communications, child care expenses, pet expenses), transportation, health care, recreation, education, tobacco products, and alcoholic beverages.

Source: Table 4.



# The Canadian Consumer Tax Index, 2016

Table 5: Income, tax, and expenditure indices (1961=100)

Year	Average cash income	Consumer Tax Index	Average Consumer Price Index	Average expenditures		
				Shelter	Food	Clothing
1961	100	100	100	100	100	100
1969	160	186	125	132	130	150
1974	250	324	167	203	184	204
1976	330	357	198	277	225	257
1981	560	682	315	476	353	345
1985	646	886	401	618	389	492
1990	863	1,116	499	776	456	514
1992	870	1,051	535	850	478	509
1994	882	1,096	546	849	482	486
1996	907	1,185	566	847	485	464
1998	902	1,220	582	859	465	469
2000	1,052	1,456	608	921	500	503
2002	1,096	1,504	637	1,026	549	537
2004	1,174	1,599	667	1,068	565	538
2006	1,298	1,743	695	1,125	589	556
2008	1,406	1,754	727	1,221	627	655
2010	1,440	1,786	742	1,273	597	607
2012	1,517	1,908	775	1,458	639	719
2014	1,582	1,994	797	1,508	718	834
2015	1,612	2,039	806	1,525	745	846
Percentage increase 1961-2015	1,512	1,939	706	1,425	645	746

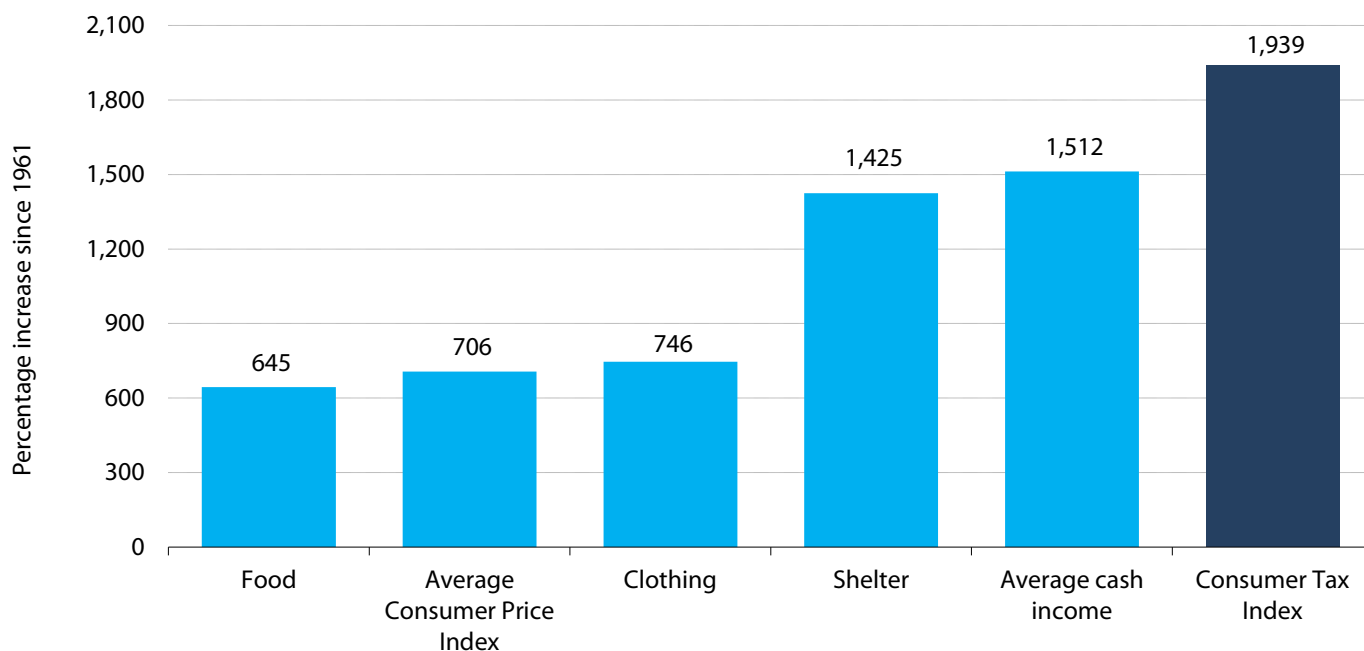
Source: Table 4.

Notes:

(1) All figures in this table are converted to indices by dividing each series in Table 4 by its value in 1961, and then multiplying that figure by 100.

(2) All expenditure items include indirect taxes.

**Figure 6: Increase in the Canadian Consumer Tax Index relative to other indices, 1961-2015**



Source: Table 5.

## Conclusion

The Canadian Consumer Tax Index tracks the total tax bill paid by a Canadian family with average income from 1961 to 2015. The results show that the tax burden faced by the average Canadian family has risen compared with 54 years earlier. The total tax bill, which includes all types of taxes, has increased by 1,939% since 1961, and the tax bill has grown more rapidly than any other single expenditure item.

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**Milagros Palacios** is a Senior Research Economist at the Fraser Institute. She holds a BA in Industrial Engineering from the Pontifical Catholic University of Peru and a M.Sc. in Economics from the University of Concepción, Chile. Since joining the Institute, she has published or co-published over 100 research studies and over 80 commentaries on a wide range of public policy issues.



**Charles Lammam** is Director of Fiscal Studies at the Fraser Institute. He has published over 75 studies and 280 original articles on a wide range of economic policy issues. He holds an MA in public policy and a BA in economics with a minor in business administration from Simon Fraser University.



**Feixue Ren** is an Economist at the Fraser Institute. She holds a Master's Degree in Economics from Lakehead University and a BA in Statistics from Human Normal University in China. Since joining the institute, she has co-authored an assortment of studies on fiscal policy including tax competitiveness and government debt.

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