

April 2010

The Canadian Consumer Tax Index, 2010

Main Conclusions

- The Canadian Consumer Tax Index tracks the total tax bill of the average Canadian family from 1961 to 2009. The total tax bill of the average Canadian family, including all types of taxes, has increased by 1,624 percent since 1961.
- Taxes have grown much more rapidly than any other single expenditure for the average Canadian family. In contrast to the jump in taxes, spending on shelter increased by 1,198 percent, food by 559 percent, and clothing by 526 percent from 1961 to 2009.
- In 1961, the average family had an income of \$5,000 and paid a total tax bill of \$1,675 (33.5 percent). In 2009, the average Canadian family earned an income of \$69,175 and paid total taxes equalling \$28,878 (41.7 percent).
- The average Canadian family now spends more of its income on taxes than it does on the basic necessities such as food, shelter, and clothing. In 1961, the average family used 56.5 percent of its income on basic necessities, while only 33.5 percent of the family's income went to taxes. In 2009, the proportion of income consumed by taxes had increased (to 41.7 percent), while the fraction of income spent on food, shelter, and clothing had dropped dramatically (to 37.1 percent).
- For the first time since the early 1990s, the total tax bill for the average Canadian family actually decreased in 2009, primarily due to the economic recession. When the economy slows and incomes decline, an average family's tax burden tends to be reduced.
- While the total tax bill for the average Canadian family decreased in 2009, most federal and provincial governments resorted to deficits to finance their expenditures.
- Government deficits must one day be paid for by taxes. Once deferred taxes (deficits) are included, the result is an increase in the total tax bill of the average Canadian family from 2008 to 2009.
- Including deferred taxes (deficits) means the tax bill of the average Canadian family has increased by 1,793 percent since 1961.

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 and Veldhuis, 2009). This Alert examines what has happened to the tax bill of the average Canadian family over the past 48 years. To do this, we have constructed an index of the tax bill, the Canadian Consumer Tax Index, for the period 1961 to 2009.

The total tax bill

In order to calculate the total tax bill of the average Canadian family, we add up all of the various taxes that the family pays to federal, provincial, and local governments. These include direct taxes, such as income taxes, sales taxes, Employment Insurance and Canadian Pension Plan taxes, and “hidden” taxes such as import duties, excise taxes on tobacco and alcohol, amusement

taxes, and gas taxes. 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. (For a further discussion of who pays business taxes, see Clemens and Veldhuis, 2003.)

In 2009, the average Canadian family (which includes both families and unattached individuals) earned cash income¹ of \$69,175 and paid total taxes equaling \$28,878 (table 1).² In other words, the total tax bill of the average Canadian family in 2009 amounted to 41.7 percent of cash income.

The Canadian Consumer Tax Index

The Canadian Consumer Tax Index tracks the total tax bill paid by a Canadian family with an average income. While each such family had an 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 to plot the experience of a family that was average in each year.³

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.

Table 1: Tax bill of the average Canadian family, 2009

Total cash income	\$69,175
Taxes	
Income taxes	9,341
Sales taxes	4,259
Liquor, tobacco, amusement, and other excise taxes	1,757
Auto, fuel, and motor vehicle licence taxes	749
Social security, medical, and hospital taxes	6,074
Property taxes	2,834
Import duties	272
Profits tax	2,484
Natural resource taxes	397
Other taxes	710
Total taxes	\$28,878
Taxes as a percentage of cash income	41.7%

Source: The Fraser Institute’s Canadian Tax Simulator, 2009.

Note: Tax and income calculations for 2009 are preliminary and subject to revision when final tax revenue and income data become available.

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 till paid by the average Canadian family for the period from 1961 to 2009. In 1961, the average Canadian family earned an income of \$5,000 and paid



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Table 2: Taxes paid by the average Canadian family (families and unattached individual), 1961-2009

Year	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	43,770	17,751	960
1994	44,328	18,499	1,004
1996	45,585	19,979	1,093
1998	48,736	21,693	1,195
2000	54,226	25,041	1,395
2002	56,295	25,639	1,431
2004	59,911	27,324	1,531
2006	65,216	29,691	1,673
2008	71,007	30,362	1,713
2009	69,175	28,878	1,624

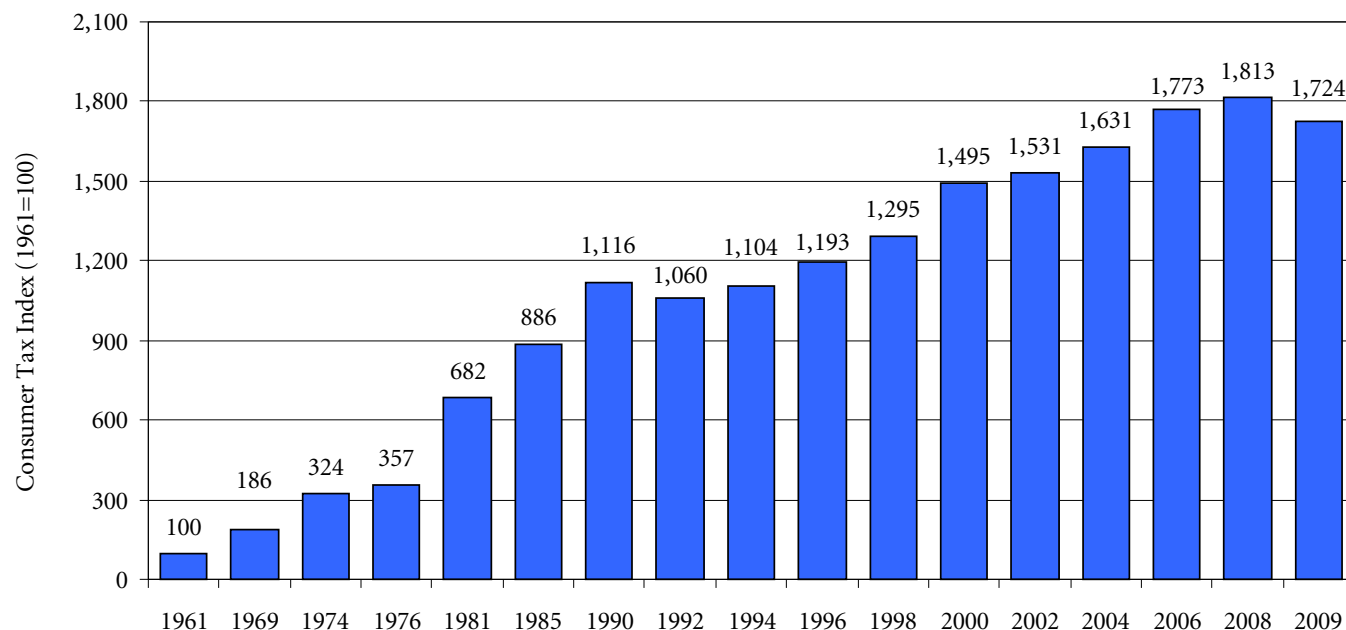
Source: The Fraser Institute's Canadian Tax Simulator, 2009.

Table 3: The Canadian Consumer Tax Index (1961 = 100)

Year	Index
1961	100
1969	186
1974	324
1976	357
1981	682
1985	886
1990	1,116
1992	1,060
1994	1,104
1996	1,193
1998	1,295
2000	1,495
2002	1,531
2004	1,631
2006	1,773
2008	1,813
2009	1,724

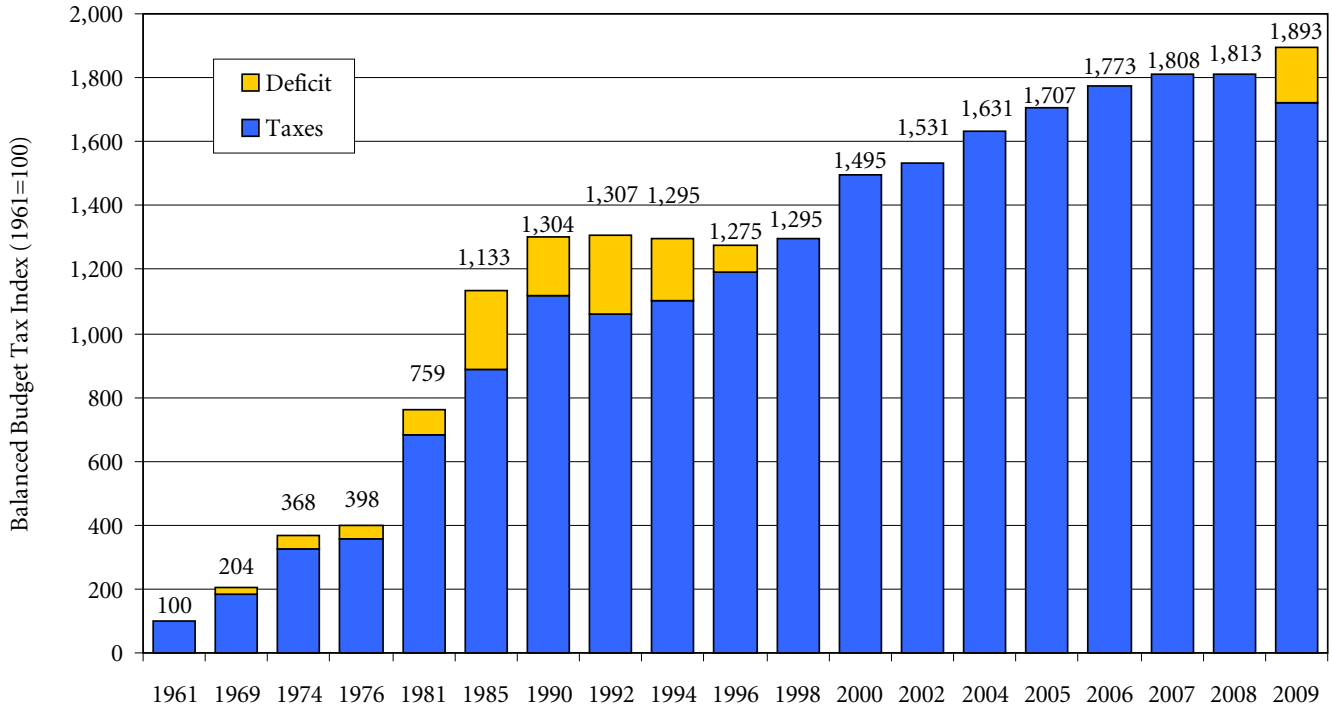
Source: The Fraser Institute's Canadian Tax Simulator, 2009.

Figure 1: The Canadian Consumer Tax Index, 1961-2009



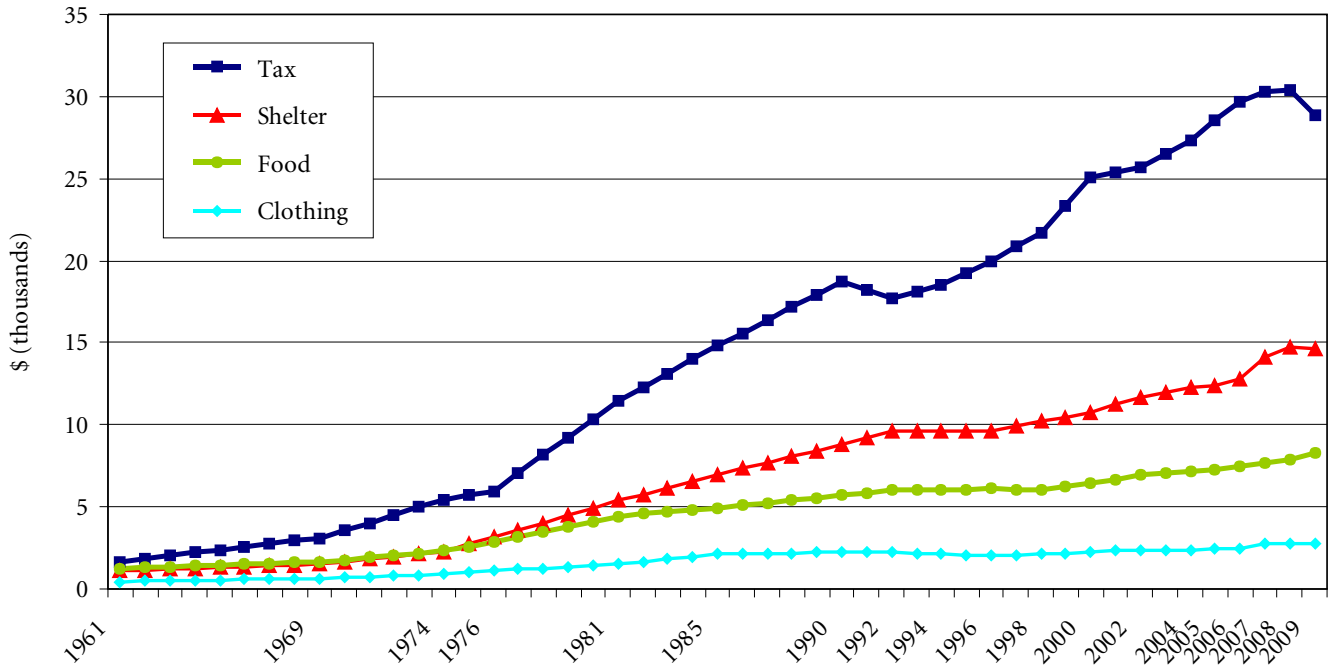
Source: Table 3.

Figure 2: The Balanced Budget Tax Index, 1961-2009



Source: The Fraser Institute's Canadian Tax Simulator 2009; Statistics Canada (2010a); calculations by the authors.

Figure 3: Taxes and basic expenditures of the average Canadian family, 1961-2009



Source: Table 4.

Table 4: Income, taxes, and selected expenditures of the average Canadian family (\$)

Year	Average cash income	Average tax bill	Average expenditures ¹		
			Shelter ²	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	43,770	17,751	9,607	6,024	2,215
1994	44,328	18,499	9,592	6,066	2,116
1996	45,585	19,979	9,577	6,108	2,017
1998	48,736	21,693	10,266	6,053	2,143
2000	54,226	25,041	10,712	6,403	2,245
2002	56,295	25,639	11,706	6,984	2,371
2004	59,911	27,324	12,256	7,214	2,393
2005	62,357	28,597	12,341	7,274	2,497
2006	65,216	29,691	12,782	7,445	2,451
2008	71,007	30,362	14,719	7,912	2,734
2009 ³	69,175	28,878	14,671	8,301	2,722

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 (2009a); Statistics Canada (various issues), *The Consumer Price Index*; The Fraser Institute's Canadian Tax Simulator, 2009.

Notes:

¹All expenditure items include indirect taxes.

²Average 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 2009 were estimated using the results of the 2008 Survey of Household Spending and adjusting final results for inflation.

\$1,675 in taxes (33.5 percent). In 2009, the average Canadian family earned an income of \$69,175 and paid total taxes equaling \$28,878 (41.7 percent).

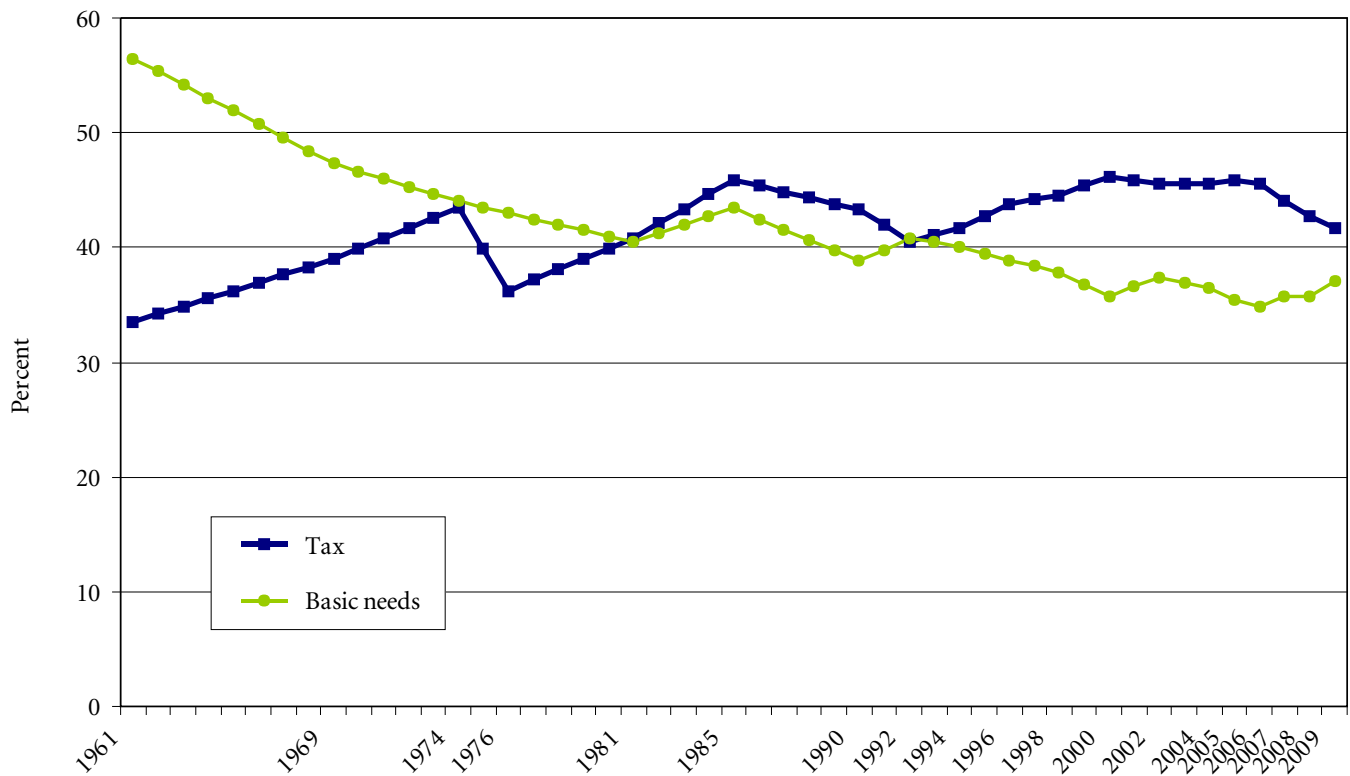
The basis of the Canadian Consumer Tax Index is the total tax calculation presented in table 2. Specifically, the Canadian Consumer Tax Index is constructed by dividing the tax bill of an average

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. Values in subsequent years reflect the percentage increase over the 1961 value. The value of the Canadian Consumer Tax Index for 2009 is 1,724, which indicates that the tax bill of the average Canadian family

has increased by 1,624 percent since 1961 (see table 3, figure 1).

The interaction of a number of factors produced the dramatic increase in the average family's tax burden from 1961 to 2009. Among those factors are, first, there was a sizeable increase in incomes over the period (1,284 percent since 1961), and even with no changes in tax rates, the family's tax bill would have

Figure 4: Taxes and basic needs as percentage of cash income, 1961-2009



Source: Table 4.

increased substantially: growth in family income alone would have produced and increased in the tax bill from \$1,675 in 1961 to \$23,174 in 2009.

Second, the average family faced a tax rate increase from 33.5 percent in 1961 to 41.7 percent in 2009, although, as table 2 reveals, the total tax bill for the average Canadian family actually declined in 2009.⁴

While the total tax bill for the average Canadian family decreased in 2009, most federal and provincial governments resorted to deficits to finance their expenditures. 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 annual deficits of governments are added to the tax bill.

Figure 2 shows that the total tax burden 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, rather than decrease from 1,724 in 2009, the Canadian Consumer Tax Index would have increased to 1,893 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 1,793 percent since 1961.

Taxes versus the necessities of life

To gauge the significance of the increased tax bill on Canadian families it is necessary to compare the evolution of the tax take to the average family's other major expenditures. Table 4 and figure 3 compare family cash income with total taxes paid and 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 percent of its cash income to provide itself with shelter, food, and clothing. In the same year, 33.5

Table 5: Income, tax, and expenditure indices (1961=100)¹

Year	Average cash income	Consumer Tax Index	Average Consumer Price Index	Average expenditures ²		
				Shelter	Food	Clothing
1961	100	100	100	100	100	100
1969	160	186	125	132	130	150
1974	250	324	166	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	875	1,060	535	850	478	509
1994	887	1,104	545	849	482	486
1996	912	1,193	566	847	485	464
1998	975	1,295	581	908	481	493
2000	1,085	1,495	607	948	509	516
2002	1,126	1,531	636	1,036	555	545
2004	1,198	1,631	666	1,084	573	550
2006	1,304	1,773	695	1,131	591	563
2008	1,420	1,813	610	1,302	628	628
2009	1,384	1,724	612	1,298	659	626
Percentage increase 1961-2008	1,284	1,624	512	1,198	559	526

Sources: Table 4; The Fraser Institute's Canadian Tax Simulator, 2009.

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.

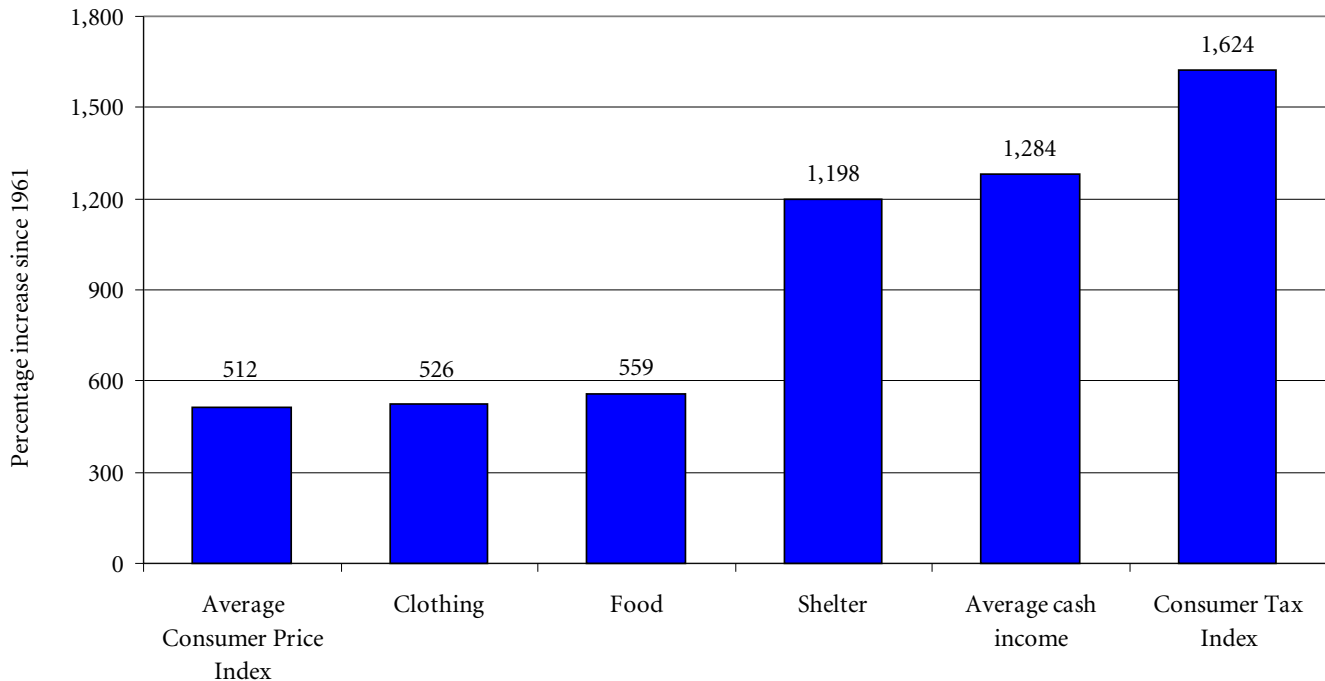
percent of the family's income went to governments as tax. By 1981, the situation had been reversed: 40.8 percent of an average family's income was taken by governments in the form of taxes while 40.5 percent was spent to provide the family with shelter, food, and clothing. In 2009, the average family spent 37.1 of its income on the necessities of life while 41.7 percent of its income went to taxes (see figure 4).

Table 5 and figure 5 shows the Canadian Consumer Tax Index relative to income and other expenditure indices. Average cash income rose by 1,284 percent from 1961 to 2009, prices rose by 512 percent, expenditures on shelter by 1,198 percent, food by 559 percent, and clothing by 526 percent. Meanwhile, the tax bill of the average family grew by 1,624 percent.

Conclusion

The Canadian Consumer Tax Index tracks the total tax bill paid by a Canadian family with average income from 1961 to 2009. The results show that the average Canadian family's tax burden has been rising steadily for the better part of 48 years. Indeed, the average Canadian family's total tax bill, including all types of taxes, has increased by

Figure 5: How the Canadian Consumer Tax Index has increased relative to other indices, 1961-2009



Source: Table 5.

1,624 percent since 1961 and taxes have grown more rapidly than any other single expenditure item.

Notes

- 1 Cash income is used 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. For a further discussion, see Palacios and Veldhuis, 2008.
- 2 Tax and income calculations are preliminary estimates based on government projections of tax revenues and an estimated growth in personal incomes. Tax and income calculations are subject to revision when final tax revenue and income data become available.

- 3 We can note, for example, that in 2009 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 of 1961 (Dominion Bureau of Statistics, 1962; and Statistics Canada, 1983 and 2009a).
- 4 There are a number of reasons for this drop. First, some tax relief provided at the federal and provincial levels have contributed to the decline. The second contributing factor has nothing to do with tax reductions from either the federal or provincial governments: in 2009, the Canadian economy slipped into recession. In a recession, incomes stagnate or decline, and the family tax burden tends to drop to a greater extent than incomes. This accelerated decrease in the income tax burden is due to the progressive nature of the Canadian tax system. Progressivity means that as one earns more income, one also

pays proportionately more tax. The reverse is also true, and this reverse phenomenon drove some of the decline in the 2009 tax bill.

Additionally, there are other cyclically-related tax reductions that have an impact on the tax bill during an economic downturn. For example, sales and other consumption taxes tend to decrease since individuals prioritize savings over consumption. Similarly, business profits are also

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reduced, which necessarily reduces the profit taxes these businesses pay.

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