



April 2007

Market solutions to public policy problems

The Canadian Consumer Tax Index, 2007



Milagros Palacios is a senior economist with the Fiscal Studies Department at The Fraser Institute.



Niels Veldhuis is the Director of the Centre for Tax Studies at The Fraser Institute.

Acknowledgements

The authors would like to thank Jason Clemens for his assistance and acknowledge the contributions of Michael Walker, Sally Pipes, Joel Emes, Isabella Horry, and Filip Palda on earlier editions of these calculations.

Main Conclusions

- The Canadian Consumer Tax Index tracks the total tax bill of the average Canadian family from 1961 to 2006
- The total tax bill for the average Canadian family, including all types of taxes, has increased by 1,590 percent since 1961
- In 1961, the average family had an income of \$5,000 and paid a total tax bill of \$1,675 (33.5 percent). In 2006, the average Canadian family earned an income of \$63,001 and paid total taxes equalling \$28,311 (44.9 percent)
- Taxes have grown much more rapidly than any other single expenditure for the average Canadian family. In contrast to the jump in taxes, expenditures on shelter increased by 1,019 percent, food by 487 percent, and clothing by 447 percent from 1961 to 2006
- 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 had to use 56.5 percent of its income on basic necessities (food, shelter and clothing), while only 33.5 percent of the family's income went to taxes. In 2006, the proportion of income consumed by taxes had increased (44.9 percent), while the fraction of income spent on shelter, food, and clothing (35.6 percent) had dropped dramatically

Table 1: Tax Bill of the Average Canadian Family (Families and Unattached Individuals), 2006

Total cash income	\$63,001
Taxes	
Income taxes	9,154
Sales taxes	4,456
Liquor, tobacco, amusement, and other excise taxes	1,746
Auto, fuel, and motor vehicle licence taxes	717
Social security, medical, and hospital taxes	5,991
Property taxes	2,149
Import duties	245
Profits tax	2,660
Natural resource taxes	571
Other taxes	621
Total taxes	\$28,311
Taxes as a percentage of cash income	44.9%

Note: Tax and income calculations for 2006 are preliminary and subject to revision when final tax revenue and income data become available.

Source: The Fraser Institute's Canadian Tax Simulator 2006.

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

Table 2: Taxes Paid by the Average Canadian Family (Families and Unattached Individuals), 1961-2006

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	43,185	17,572	949
1994	43,639	18,407	999
1996	45,043	19,911	1,089
1998	48,007	21,584	1,189
2000	53,476	24,822	1,382
2002	56,642	25,953	1,449
2004	58,318	26,833	1,502
2006	\$63,001	\$28,311	1,590%

Source: The Fraser Institute's Canadian Tax Simulator, 2006.

Veldhuis and Palacios, 2006). This Alert examines what has happened to the tax bill of the average Canadian family over the past 45 years. To determine the changes, an index of the tax bill of the average Canada family, the Canadian Consumer Tax Index, is constructed for the period 1961 to 2006.

The total tax bill

Calculating the total tax bill of the average Canadian family consists of adding 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. (To read more about who pays business taxes, see Clemens and Veldhuis, 2003.)

In 2006, the average Canadian family (including families and unattached individuals)¹ earned cash income² of \$63,001 and paid total taxes equaling \$28,311 (table 1).³ In other words, the total tax bill of the average Canadian family in 2006 amounted to 44.9 percent of cash income.

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

	<u> </u>			
Year	Index			
1961	100			
1969	186			
1974	324			
1976	357			
1981	682			
1985	886			
1990	1,116			
1992	1,049			
1994	1,099			
1996	1,189			
1998	1,289			
2000	1,482			
2002	1,549			
2004	1,602			
2006	1,690			
Course The Freeze In atitude?				

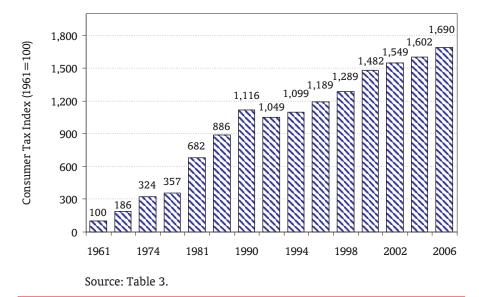
Source: The Fraser Institute's Canadian Tax Simulator, 2006.

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.⁴

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

Figure 1: The Canadian Consumer Tax Index, 1961-2006



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 till paid by the average Canadian family for the period from 1961 to 2006. In 1961, the average Canadian family earned an income of \$5,000 and paid \$1,675 in taxes (33.5 percent). In 2006, the average Canadian family earned an income of \$63,001 and paid total taxes equaling \$28,311 (44.9 percent).

The basis of the Canadian Consumer Tax Index is the tax bill

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 and values in subsequent years reflect the percentage increase over the 1961 value. The value of the Canadian Consumer Tax Index for 2006 is 1.690, which indicates that the tax bill of the average Canadian family has increased by 1,590 percent since 1961 (table 3 and figure 1).

The dramatic increase in the tax burden of the average family from 1961 to 2006 was produced by the interaction of a number of factors. First, there was a dramatic increase in incomes over the period, which has generated a substantial increase in the family's tax bill. Indeed, average cash income has grown 1,160 percent since 1961.

Table 4: Income, Taxes and Selected Expenditures of the Average Canadian Family (dollars)

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	43,185	17,572	9,607	6,024	2,215	
1994	43,639	18,407	9,592	6,066	2,116	
1996	45,043	19,911	9,577	6,108	2,017	
1998	48,007	21,584	10,154	6,014	2,122	
2000	53,476	24,822	10,656	6,384	2,235	
2002	56,642	25,953	11,591	6,914	2,336	
2004	58,318	26,833	12,024	7,075	2,324	
2006	63,001	28,311	12,645	7,386	2,381	

Notes

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 (2006a); Statistics Canada (various issues), *The Consumer Price Index*; The Fraser Institute's Canadian Tax Simulator, 2006.

The second contributing factor was an increase in the tax rate that the average family faced—from 33.5 percent in 1961 to 44.9 percent in 2006.

Taxes versus the necessities of life

To gauge the significance of the increase in the tax bill faced by Canadian families it is instructive to compare its evolution to other major expenditures of the average family. Table 4 and figure 2

compare the average dollar amount of family cash income and total taxes paid with family expenditures on shelter, food, and clothing. It is clear that taxation has become the most significant item that consumers face in their budgets, and that taxes have grown more rapidly than any other single item.

In 1961, the average family had to use 56.5 percent of its cash income to provide itself with shelter, food, and clothing. In the same year, 33.5 percent of the family's income went to governments as tax. By 1981, the

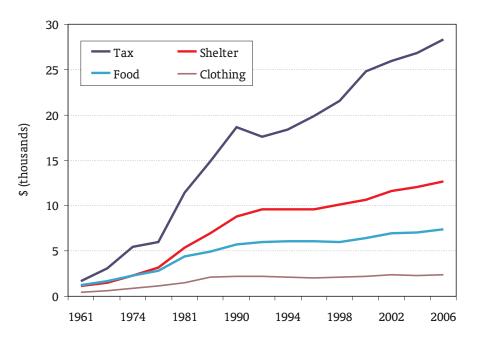
situation had been reversed; governments took 40.8 percent of the income in the form of taxes, while the family used 40.5 percent to buy shelter, food, and clothing. In 2006, the average family spent 35.6 percent of its income on the necessities of life while 44.9 percent of its income went to taxes.

Table 5 and figure 3 show the Canadian Consumer Tax Index relative to income and other expenditure indices. Average cash income rose by 1,160 percent from 1961 to 2006, prices rose by 595 percent,

¹All expenditure items include indirect taxes.

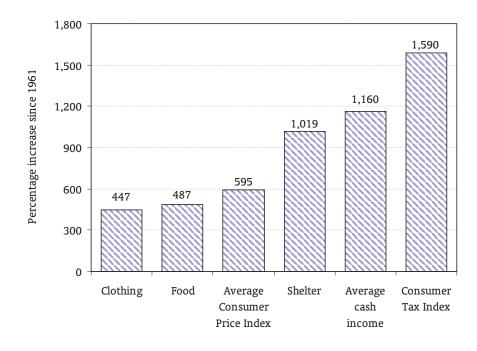
²Average shelter expenditures for years prior to 1998 are estimates. The estimate is to take account of a change in the definition of shelter between the *Family Expenditure Survey* and the *Survey of Household Expenditures*.

Figure 2: Taxes and Basic Expenditures of the Average Canadian Family, 1961-2006



Source: Table 4.

Figure 3: How the Canadian Consumer Tax Index has Increased Relative to Other Indices, 1961-2006



Source: Table 5.

expenditures on shelter by 1,019 percent, food by 487 percent, and clothing by 447 percent. Meanwhile, the average family's tax bill grew by 1,590 percent.

Conclusion

The Canadian Consumer Tax Index tracks the total tax bill paid by a Canadian family with average income from 1961 to 2006. The results show that the tax burden faced by average Canadian family has been rising steadily for the better part of 45 years. Indeed, the total tax bill for the average Canadian family, including all types of taxes, has increased by 1,590 percent since 1961; taxes have grown more rapidly than any other single expenditure item.

Notes

- 1 The "average family" used in calculating the CCTI includes families and unattached individuals. This family type differs from that used for the calculation of Tax Freedom Day (families with two or more individuals). The CCTI uses a different family type because comparable data from the 1960's are only available for the average family based on all families and unattached individuals.
- 2 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, dividend, private and government pension payment, old age pension payment, and other transfers from government. For further discussion, see Veldhuis and Walker, 2006.
- 3 Tax and income calculations are preliminary estimates based on government projections of tax revenues and estimated growth in personal

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	864	1,049	535	850	478	509
1994	873	1,099	545	849	482	486
1996	901	1,189	566	847	485	464
1998	960	1,289	581	898	478	488
2000	1,070	1,482	607	943	507	514
2002	1,133	1,549	636	1,025	549	537
2004	1,166	1,602	666	1,064	562	534
2006	1,260	1,690	695	1,119	587	547
Percentage increase 1961-2006	1,160	1,590	595	1,019	487	447

Notes

Sources: Table 4; The Fraser Institute's Canadian Tax Simulator, 2006.

incomes. Tax and income calculations are subject to revision when final tax revenue and income data become available.

4 We can note, for example, that the average family in 2006 is headed by an older person, one 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, 1983 and 2006b).

References

Clemens, Jason and Niels Veldhuis (2003). "Who Pays Business Taxes? A Different View." Fraser Forum (October).

Dominion Bureau of Statistics (1967). *Urban Family Expenditure*, 1962. Catalogue 62-525. Ottawa: Dominion Bureau of Statistics, Prices Division.

Statistics Canada (2006a). "Survey of Household Spending (SHS) 2005." Custom tabulation.

Statistics Canada (2006b). Spending Patterns in Canada, 2005. Catalogue no. 62-202-XIE.
Ottawa: Statistics Canada.

Statistics Canada (2006c). User Guide for the Survey of Household Spending, 2005. Catalogue no. 62F0026MIE. Ottawa: Statistics Canada.

Statistics Canada (1983). Historical Statistics of Canada. 2nd edition. Catalogue no. 11-516E. Ottawa: Supply and Services Canada. Statistics Canada (various issues). Family Expenditures in Canada. Catalogue no. 62-555-XPB. Ottawa: Statistics Canada.

Statistics Canada (various issues). Spending Patterns in Canada. Catalogue no. 62-202-XIE. Ottawa: Statistics Canada.

Statistics Canada (various issues). *The Consumer Price Index*. Catalogue no. 62-001-XIB.
Ottawa: Statistics Canada.

Statistics Canada (various issues). *Urban Family Expenditure*. Catalogue nos. 62-535, 62-537, 62-544, 62-547, 62-555. Ottawa: Statistics Canada.

Veldhuis, Niels and Michael Walker (2006). *Tax Facts* 14. Vancouver: The Fraser Institute.

Veldhuis, Niels and Milagros Palacios (2006).

"Canadians Celebrate Tax Freedom Day on
June 19." Fraser Forum (July/August): 4-10.

¹All 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.

²All expenditure items include indirect taxes.

About this publication

Fraser Alerts are published from time to time by The Fraser Institute (4th Floor, 1770 Burrard St., Vancouver, BC, Canada V6J 3G7) to provide, in a format easily accessible online, short, timely studies of current issues in economics and public policy.

Our mission

Our vision is a free and prosperous world where individuals benefit from greater choice, competitive markets, and personal responsibility. Our mission is to measure, study, and communicate the impact of competitive markets and government interventions on the welfare of individuals.

Founded in 1974, we are an independent research and educational organization with offices in Vancouver, Calgary, and Toronto, and international partners in over 70 countries. Our work is financed by tax-deductible contributions from thousands of individuals, organizations, and foundations. In order to protect its independence, the Institute does not accept grants from government or contracts for research.

Distribution

These publications are available from <code>www.fraserinstitute.ca</code> in Portable Document Format (PDF) and can be read with Adobe Acrobat® or with Adobe Reader®, which is available free of charge from Adobe Systems Inc. To download Adobe Reader, go to this link: <code>www.adobe.com/products/acrobat/readstep.html</code> with your browser. We encourage you to install the most recent version.

Disclaimer

The authors of this publication have worked independently and opinions expressed by them are, therefore, their own, and do not necessarily reflect the opinions of the supporters or the trustees of The Fraser Institute.

Copyright

Copyright © 2007 by The Fraser Institute. All rights reserved. No part of this publication may be reproduced in any manner whatsoever without written permission except in the case of brief passages quoted in critical articles and reviews.

Media enquiries and information

For media enquiries, please contact our Communications Department by telephone at 604.714.4582 or e-mail communications@fraserinstitute.ca

Our web site, www.fraserinstitute.ca, contains more information on Fraser Institute events, publications, and staff.

Development

For information about becoming a Fraser Institute supporter, please contact the Development Department via e-mail: <code>development@</code> fraserinstitute.ca; via telephone: 604.688.0221 ext. 586; via fax: 604.688.8539. In Calgary, please contact us via telephone: 403.216.7175 or, toll-free 1.866.716.7175; via fax: 403.234.9010.

Editing, design, and production

Kristin McCahon