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IN BRIEF

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16 September 2005

Federal Taxes on Gasoline and Heating Fuels

INTRODUCTION

Gasoline and home heating fuels are well-known examples of what economists call “inelastic goods,” which means that consumption of these fuels does not vary proportionately to changes in prices. For example, if prices rise by 1%, consumption might remain unchanged or fall by somewhat less than 1%. This makes them ideal candidates for taxation: a tax of 1 cent per litre or even 10 cents per litre is unlikely to reduce consumption significantly. The government can therefore be relatively sure that introducing or increasing its taxes on these fuels will not reduce consumption enough to offset the new tax or the tax increase.⁽¹⁾

In Canada, federal, provincial and even some municipal governments levy various types of taxes on gasoline and home heating fuels. Typically, the sum of these taxes accounts for about one-third of the price of a litre of gasoline. Figure 1, in the Appendix, shows the price breakdown for a litre of gasoline for the country as a whole; Figure 2 shows the price breakdown for a litre of gasoline in major cities across the country.

At the federal level, the government collects three main kinds of energy taxes. First, it imposes *royalty taxes* on companies that pump or dig oil and gas out of the ground before it is turned into gasoline or natural gas. Since resource taxation falls under provincial jurisdiction, the federal government charges royalties only on oil and natural gas from federally owned Crown lands in the Northwest Territories, Yukon, the Beaufort Sea, Canada’s Arctic Islands and in Hudson’s Bay.⁽²⁾ The federal royalty is structured such that “... it increases from 1 to 5 percent of gross revenue over the first six years of production or until the initial investment has been recovered, after which the royalty is the greater of

30 percent of net cash flow and 5 percent of gross revenue.”⁽³⁾ In 2004, the federal government collected about \$20.6 million in royalty revenue from oil and gas production on federal Crown lands.

Second, the federal government imposes an *excise tax*, which is calculated on quantities or volumes of energy. The federal government’s 10-cents-per-litre excise tax on gasoline and its 4-cents-per-litre excise tax on diesel fuel are well-known examples. In 2003-2004, these and other excise taxes (including taxes on aviation fuel) generated almost \$5 billion in revenue. Note that the excise tax is fixed and therefore falls/rises as a percentage of the pump price with every increase/decrease in the final gasoline or diesel price.

Third, the federal government charges a *sales tax* that is calculated on values. The 7% goods and services tax (GST) and the 15% harmonized sales tax (HST – a combination of the GST and provincial sales tax) in the Atlantic provinces – are probably the best-known sales taxes in Canada. They are applied after the manufacturers and retailers have priced in all their costs plus their profit margins and after the federal and provincial (and, in some cases, municipal) governments have added their excise taxes. The only exception to this rule is Quebec, which calculates its sales tax after the GST. The various federal, provincial and municipal excise and sales taxes are presented in Table 1.

Unlike the excise tax, the GST/HST is calculated as a percentage and therefore rises/falls with every increase/decrease in price and/or other taxes. So although sales tax rates may not change, the amount collected does. In 2003-2004, the federal government collected an estimated \$1.6 billion in GST on gasoline sales.⁽⁴⁾ Of this amount, between \$617 million and \$701 million is estimated to be due solely to the fact that the GST is calculated on top of the provincial and

federal excise taxes listed in Table 1. Tables 2 and 3 provide the breakdown of the GST's tax-on-tax effect by jurisdiction, using two different estimation methods.

HEATING FUELS

There are no federal or provincial excise taxes on heating fuels such as natural gas, electricity and oil. The GST, HST and Quebec sales taxes are, however, charged on heating fuel purchases. In 2004, the federal government collected an estimated \$1.5 billion from GST charged on heating fuels.

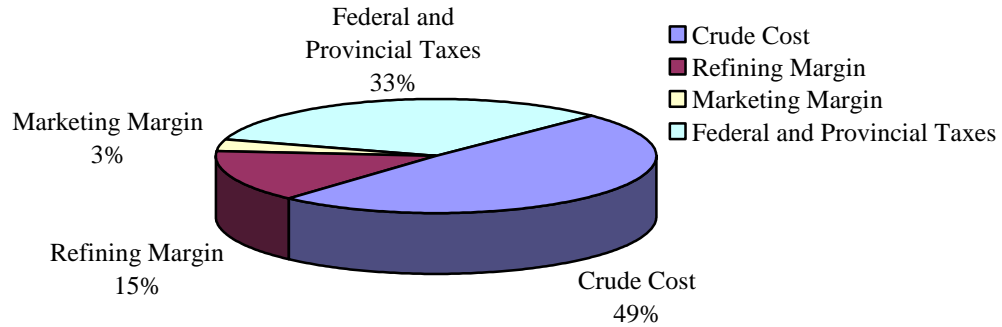
CONCLUSION

Last year, the federal government collected about \$20.6 million in royalty revenue, \$5 billion from its excise tax on motor fuels (gasoline, diesel and aviation fuel), another \$1.6 billion in GST revenue from motor fuel purchases, and \$1.5 billion in GST revenue from heating fuel purchases, for a total of slightly over \$8 billion.

- (1) Economists have theorized that at some ill-defined point (the maximum of the so-called Laffer curve), tax increases may actually lead to a reduction in tax revenue, either because of reduced consumption or production of the taxed good or activity, or simply because higher taxes lead to increased tax evasion.
- (2) The federal government also has taxation jurisdiction over offshore areas on the east and west coasts. It has effectively ceded its right to tax east-coast production under the "Atlantic Accords" with Nova Scotia and Newfoundland and Labrador. There are currently no offshore oil and gas projects off the west coast of Canada.
- (3) Karin Treff and David B. Perry, *Finances of the Nation*, Canadian Tax Foundation, 2004, p. 7:9.
- (4) This figure is net of GST input tax credits to companies and individuals who purchased gasoline from a retailer and used the fuel to produce goods and services. The calculation is based on an estimate of 2004 household spending on motor fuels and lubricants in Statistics Canada's *Spending Patterns in Canada* (Cat. No. 62-202-XIE).

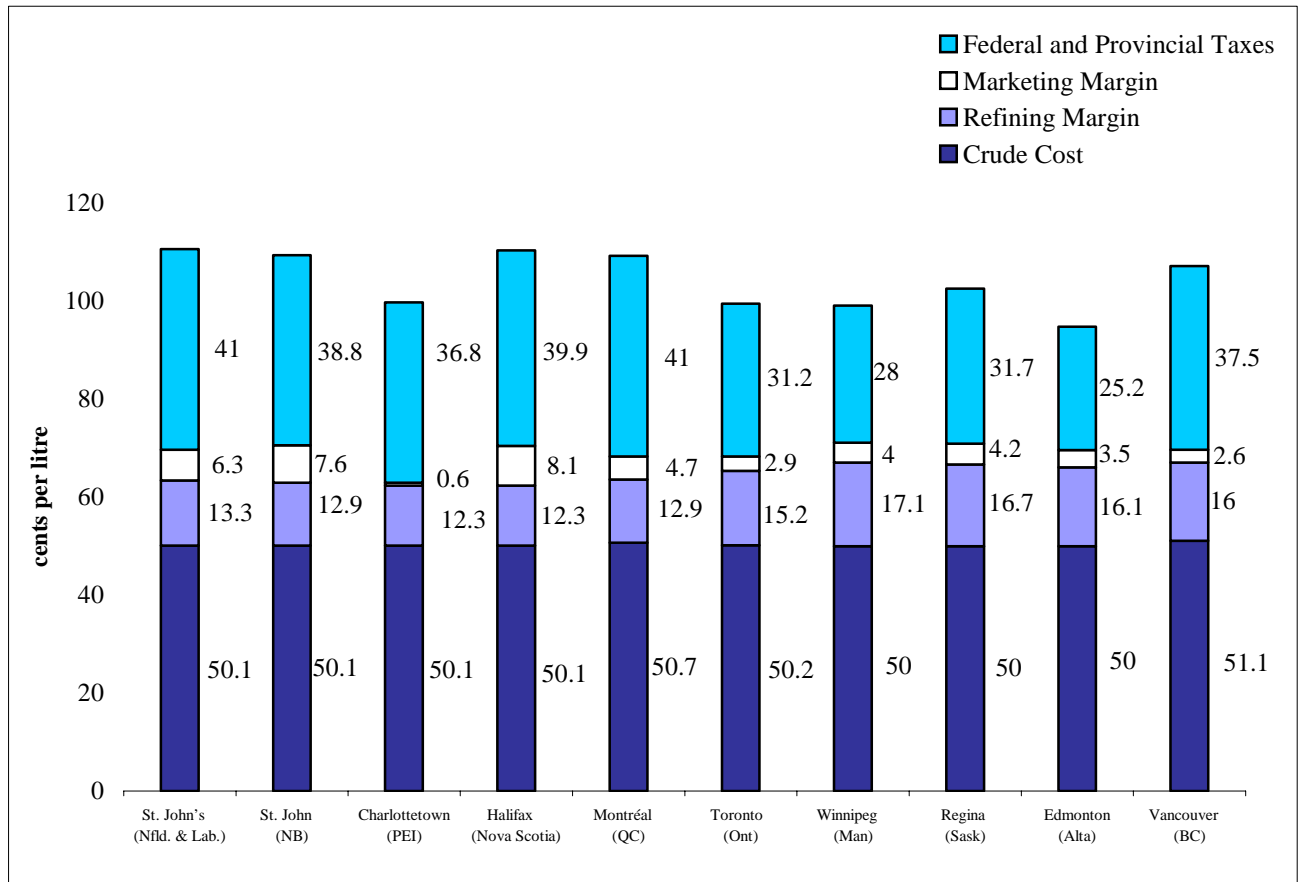
APPENDIX

**Figure 1: Price Breakdown of a Litre of Gasoline, Canadian Average
(four-week average ending 30 August 2005)**



Source: Library of Parliament, based on data from M. J. Ervin & Associates and Purvin & Gertz Inc., *Fuel Facts*, Vol. 6, Issue 16, 30 August 2005, available at: <http://www.cppi.ca/ff050830.htm>.

**Figure 2: Regular Gasoline Pump Prices in Major Canadian Cities
(four-week average ending 30 August 2005)**



Source: Library of Parliament, based on data from M. J. Ervin & Associates and Purvin & Gertz Inc., *Fuel Facts*, Vol. 6, Issue 16, 30 August 2005, available at: <http://www.cppi.ca/ff050830.htm>.

**Table 1: 2005 Consumption Taxes on Petroleum Products
(cents per litre)**

	<u>Gasoline</u>	<u>Diesel</u>	<u>Aviation Fuel / Turbo</u>	<u>Propane (automotive)^(a)</u>	<u>Furnace Oil / Natural Gas (for heating)</u>
Federal Taxes					
Excise Tax	10.0	4.0	11.0 / 4.0		
Goods and Services Tax or, where applicable: ^(b)	7%	7%	7%	7%	7%
Harmonized Sales Taxes	15%	15%	15%	15%	15%
Provincial Taxes					
Newfoundland and Labrador ^(c)	16.5	16.5	0.7	7.0	
Prince Edward Island ^(d)	20.1	19.7	0.7	17.0	
Nova Scotia	15.5	15.4	0.9	7.0	
New Brunswick	14.5	16.9	2.5	6.7	
Quebec ^(e)	15.2	16.2	3.0		
Quebec Sales Tax (Montréal)	7.5%	7.5%		7.5%	7.5%
Ontario	1.5				
Ontario	14.7	14.3	2.7	4.3	
Manitoba	11.5	11.5	3.2	3.0	
Saskatchewan	15.0	15.0	3.5	9.0	
Alberta	9.0	9.0	1.5	6.5	
British Columbia ^(f)	14.5	15.0	2.0 / 2.0	2.7	
(Greater Vancouver Region)	6.0	6.0			
(Greater Victoria)	2.5	2.5			
Yukon	6.2	7.2	1.1		
Northwest Territories ^{(g)(h)}	10.7	9.1	1.0		
Nunavut ^(h)	6.4	9.1	1.0		

Notes:

- (a) The propane tax applies on fuel used in motor vehicles.
- (b) For Newfoundland and Labrador, New Brunswick and Nova Scotia only, effective 1 April 1997, the GST and the retail sales taxes are replaced by a single, harmonized value-added tax, the Harmonized Sales Tax (HST), applicable on all petroleum products.
- (c) In Newfoundland and Labrador, the clear gasoline tax is 12.2 ¢/L in the region between the Quebec border and Red Bay in Labrador.
- (d) In Prince Edward Island, effective 8 April 2005, the new tax rate on gasoline and diesel is a blended tax comprising a volume-based tax of 11.5 ¢/L and an *ad valorem* tax of 10.7% applied to the “average wholesale price” per litre on the first day of the month. Taxes change on the first day of every month.
- (e) In Quebec, gasoline, diesel and propane taxes are reduced by varying amounts in certain remote areas and within 20 kilometres of the provincial and U.S. borders.
Since 1 January 1996, an urban tax of 1.5 ¢/L is applicable to three grades of gasoline in Montréal and surrounding municipalities.
- (f) In the Greater Vancouver and Greater Victoria areas, there are additional transportation taxes of 6.0 ¢/L and 2.5 ¢/L, respectively, on gasoline and diesel.
- (g) In the Northwest Territories, the gasoline tax is based on a 17% *ad valorem* rate and the diesel tax is 85% of the gasoline tax.
- (h) Rate for Zone A gasoline is 10.7 ¢/L, rate for Zone B gasoline (communities not served by highway system) is 6.4 ¢/L.

Source: Oil Division, Petroleum Resources Branch, Natural Resources Canada [highlighting is in the original].

As of 1 May 2005

Table 2: Estimated GST Revenue Generated in 2003-2004 Due to Federal, Provincial and Territorial Excise Taxes on Motor Fuels – Public Accounts Method*

	Revenue (\$ millions)
Estimated Amount Collected on Federal Excise Taxes in 2003-2004	
GST revenue due to federal excise taxes on gasoline, diesel and aviation fuel	\$242.6
Estimated Amount Collected on Provincial and Territorial Motor Fuel Excise Taxes in 2003-2004	
Newfoundland and Labrador	\$6.6
Prince Edward Island	\$1.8
Nova Scotia	\$12.2
New Brunswick	\$11.5
Quebec	\$84.6
Ontario	\$144.7
Manitoba	\$11.3
Saskatchewan	\$17.2
Alberta	\$29.5
British Columbia	\$53.7
Territories (Yukon, Northwest Territories and Nunavut)	\$1.4
Total GST Revenue Generated by Provincial and Territorial Motor Fuel Excise Taxes	\$374.5
Total GST Revenue Generated by Federal, Provincial and Territorial Motor Fuel Excise Taxes	\$617.1

Notes: * All calculations assume that 30% of gasoline, diesel and aviation fuel purchases are rebated to the purchaser through the GST input tax credit.

Source: Library of Parliament, based on data from *Public Accounts of Canada, 2004*, and *Finances of the Nation, 2004*, Table 5.2.

Table 3: Estimated GST Revenue Generated in 2004 Due to Federal, Provincial and Territorial Excise Taxes on Motor Fuels – Fuel Sales Method*

	Revenue (\$ millions)
Estimated Amount Collected on Federal Excise Taxes in 2004	
GST revenue due to federal excise taxes on gasoline, diesel and aviation fuel	\$251.1
Estimated Amount Collected on Provincial and Territorial Motor Fuel Excise Taxes in 2004	
Newfoundland and Labrador	\$10.2
Prince Edward Island	\$3.3
Nova Scotia	\$15.7
New Brunswick	\$15.6
Quebec	\$97.7
Ontario	\$161.2
Manitoba	\$13.7
Saskatchewan	\$24.6
Alberta	\$46.7
British Columbia	\$60.3
Territories (Yukon, Northwest Territories and Nunavut)	\$1.7
Total GST Revenue Generated by Provincial and Territorial Motor Fuel Excise Taxes	\$450.7
Total GST Revenue Generated by Federal, Provincial and Territorial Motor Fuel Excise Taxes	\$701.8

Notes: * All calculations assume that 30% of gasoline, diesel and aviation fuel purchases are rebated to the purchaser through the GST input tax credit.

Source: Library of Parliament, based on data from Statistics Canada, *Refined Petroleum Products*, December 2004, Table 2.

Table 4: Summary of Federal Tax Revenue Collected From Motor Fuels and Home Heating Fuel Purchases (\$billions)

Tax Source	
Royalty revenue (2004)	\$0.02
Excise taxes on motor fuels (2003-2004)	\$4.95
GST on motor fuels (2004)	\$1.59
GST on home heating fuels (2004)	\$1.49
Total	\$8.05