



Sustainable
Prosperity

RESEARCH REPORT

BRITISH COLUMBIA'S CARBON TAX SHIFT: THE FIRST FOUR YEARS



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Sustainable Prosperity is a national policy and research network aimed at building a healthy environment and economy, by making markets work *for* the environment. Based at the University of Ottawa, it is a non-partisan, multi-stakeholder research and policy initiative that aims to build a greener and more prosperous economy for all Canadians.

For more information, see: www.sustainableprosperity.ca.

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KEY FINDINGS

- ▶ British Columbia's carbon tax shift increases by \$5 per tonne on July 1st – its four year anniversary date. With a public review of the tax upcoming, now is an ideal time to review and assess the policy's impacts (environmental and economic).
- ▶ The carbon tax has contributed substantial environmental benefits to British Columbia (BC). Since the tax took effect in 2008, British Columbians' use of petroleum fuels (subject to the tax) has dropped by 15.1% -- and by 16.4% compared to the rest of Canada. BC's greenhouse gas emissions have shown a similarly substantial decline (although that analysis is based on one year's less data).
- ▶ BC's GDP growth has outpaced the rest of Canada's (by a small amount) since the carbon tax came into effect – suggesting that it has not adversely affected the province's economy, as some had predicted. This finding fits with evidence from seven other countries that have had similar carbon tax shifts in place for over a decade, resulting in neutral or slightly positive effects on GDP.
- ▶ The BC government has kept its promise to make the tax shift 'revenue neutral', meaning no net increase in taxes. In fact, to date it has returned far more in tax cuts (by over \$300 million) than it has received in carbon tax revenue – resulting in a net benefit for taxpayers. BC's personal and corporate income tax rates are now the lowest in Canada, due to the carbon tax shift.
- ▶ At the same time, the tax shift is just four years old, and further study is needed to reach firm conclusions about its environmental and economic effects.

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RESPONDING TO BRITISH COLUMBIA'S CLIMATE CHALLENGE: THE HISTORY OF THE TAX SHIFT

On July 1, 2008, British Columbia (BC) introduced North America's first carbon tax shift. To reduce greenhouse gas emissions, the province imposed a price on the use of carbon-based fuels, with all revenues going to fund corresponding cuts in other taxes. On July 1, 2012, the tax will increase by \$5/tonne (about 1 cent per litre of gas), as it does each year. This annual increase, and the government's upcoming review of the carbon tax, provides an opportune occasion to assess this policy's impacts – both environmental and economic – after its first four years of operation.

BC's carbon tax is a central component of the province's climate change strategy, as BC aims to reduce its greenhouse gas (GHG) emissions by 33% below 2007 levels by 2020.¹ The tax applies to almost all fossil fuel use in the province, including gasoline, diesel, propane, natural gas, and coal. The charge for each fuel type is calibrated to the amount of carbon released by burning it. The tax covers three quarters (77%) of the province's GHG emissions from residential, commercial and industrial sources.² It does not cover emissions from non-combustion sources, such as landfill methane emissions, fugitive emissions, and certain industrial processes.

When the tax was introduced in 2008, it was set at \$10 per tonne of carbon dioxide equivalent (CO₂e) (2.4 cents per litre for gasoline), and was designed to rise by \$5 per year thereafter. It will rise to \$30 per tonne of CO₂e (6.67 cents per litre) on July 1, 2012.³ Québec, the only other North American jurisdiction to implement a carbon tax, charges an equivalent of \$3.20 per tonne of CO₂e (less than 1 cent per litre).⁴

BC's carbon tax shift was designed to be "revenue neutral". This means that all carbon tax revenues are to be used to reduce other taxes – mainly through cuts to income taxes (personal and corporate), as well as targeted tax reductions for vulnerable households and communities. This tax *shift* is intended to result in no overall increase in taxation or government revenues.⁵ In fact, to date the government has returned \$318 million more in income tax cuts than it has collected in carbon tax⁶.

¹ British Columbia, *Climate Action Plan* (2008), online: <http://www.livesmartbc.ca/attachments/climateaction_plan_web.pdf>. The plan includes participation in the Western Climate Initiative, a regional cap and trade program, and investments in such things as public transit. The GHG emissions targets are from the *Greenhouse Gas Reduction Targets Act*, SBC 2007, c 42.

² British Columbia, Ministry of Finance, "Myths and Facts About the Carbon Tax", online: <http://www.fin.gov.bc.ca/tbs/tp/climate/A6.htm>. For a thorough overview of the measure, see David G. Duff, "The Reality of Carbon Taxes in the 21st Century: Carbon Taxation in British Columbia" (2008) 10 Vt.J. Envtl. L. 87.

³ *Carbon Tax Act*, S.BC 2008, c. 40, Schedule 2.

⁴ Sumner, Jenny, Lori Bird, and Hillary Smith, *Carbon Taxes: A Review of Experience and Policy Design Considerations*, at v. (National Renewable Energy Laboratory, December 2009) Online: <http://www.nrel.gov/docs/fy10osti/47312.pdf>

⁵ British Columbia, Ministry of Finance, *Budget and Fiscal Plan 2010/11 – 2012-13* (2 March 2010), online: British Columbia <http://www.bcbudget.gov.bc.ca/2010/bfp/2010_Budget_Fiscal_Plan.pdf#tax> at 105, 106. Ministry of Finance, "Myths and Facts about the Carbon Tax", online: British Columbia <<http://www.fin.gov.bc.ca/tbs/tp/climate/A6.htm>>.

The 2012/13 estimates reflect the increased carbon tax rate, estimating \$1.172 billion in carbon tax revenues compared to the \$960 million in the revised forecast for 2011/12. British Columbia, Ministry of Finance, *Estimates of Revenue and Expenditure: 2012/13*, at 5. Online: http://www.bcbudget.gov.bc.ca/2012/estimates/2012_Estimates.pdf

⁶ *Ibid.*

When the carbon tax shift was first brought in, it included a five year plan to ramp up the rate through to 2012. With the last increase of this initial stage about to take effect, the government has announced a public review of the carbon tax, including its revenue neutrality, and its impacts on particular economic sectors, especially food and agriculture.⁷ It is hoped that this report, on the effects of the tax shift to date, will help to inform that review and the overall public debate.

SCOPE AND APPROACH OF THIS REPORT

Sustainable Prosperity (SP) has been tracking the impacts of the BC carbon tax shift since it was introduced in 2008. The primary objective of the tax shift is to promote reductions in greenhouse gas (GHG) emissions and fuel use, through a price on carbon. The accompanying tax cuts are intended to avoid any overall tax increase, as well as to provide economic stimulus (to offset any adverse effects from the carbon tax). Consistent with those objectives, this report focuses primarily on the tax shift's environmental effectiveness, i.e. reducing fuel use and emissions. It also briefly discusses its economic and fiscal impacts.

The equity (distributional) impacts of the carbon tax shift, particularly on vulnerable communities and households, are also an important consideration. That issue falls outside the scope of this report, but has been discussed in previous studies by Sustainable Prosperity and others.⁸

In terms of methodology, the report examines the changes in GHG emissions and GDP in BC since 2008, when the tax shift came in, and compares them with changes that have occurred in the rest of Canada in that time. Including a comparison with the rest of Canada is useful, since it helps to factor out any effects resulting from GDP changes. For example, the economic downturn of 2008-9 reduced GHG emissions (by reducing economic activity), but that downturn affected all of Canada, so one would expect to see *greater* emissions declines in BC, if the carbon tax was having an effect. It should be noted that two other provinces in Canada have had a carbon price during 2008-12; Quebec's carbon price is lower, and Alberta's does not apply across as large a proportion of the province's emissions, so one would expect to see greater emissions reductions (or smaller increases) in BC than in those provinces.

For the sake of brevity, this report will use the term "petroleum fuel" to refer to *refined petroleum products* subject to the tax. Particular types of fuel, such as gasoline, will be specifically identified where referenced.

⁷ British Columbia, Ministry of Finance, *Budget and Fiscal Plan: 2012/13 - 2014/15* at 66, online: http://www.bcbudget.gov.bc.ca/2012/bfp/2012_Budget_Fiscal_Plan.pdf

⁸ See, for instance: Lee, Marc and Toby Sanger (October 30, 2008), *Is BC's Carbon Tax Fair? An Impact Analysis for Different Income Levels*, (Canadian Centre for Policy Alternatives: Vancouver) online: <http://www.policyalternatives.ca/publications/reports/bcs-carbon-tax-fair>
See also Sustainable Prosperity (July 2011), *Carbon Pricing and Fairness*, online at: <http://www.sustainableprosperity.ca/dl574&display>

ENVIRONMENTAL EFFECTS (PETROLEUM FUEL USE AND GHGs)

One of the primary means by which the carbon tax is expected to deliver on its objective of reducing GHG emissions is through the reduced use of fossil fuels. It is therefore useful to look at both of these measures, in order to assess the effectiveness of the tax. Data on changes in petroleum fuel sales are particularly informative, since it is available up to spring 2012, whereas GHG emissions data are available only up to the end of 2010 (GHG reporting lags by up to 2 years). In other words, petroleum fuel use data can provide a more current picture of the effects of BC's carbon tax, by including effects through 2011 (when the tax rose to \$25/tonne), and so it will be the main focus of this report. GHG emissions data will also be reviewed (briefly), since it provides useful additional information, even if just to 2010.

It should be noted that, while the data presented below may be useful in showing a correlation between fuel use (or GHG emissions) and the BC carbon tax, they cannot show conclusively that the carbon tax shift is what *caused* any difference in BC's performance. More detailed study will be required to better determine the specific effects of the carbon tax shift – particularly economic modeling analysis.

PETROLEUM FUEL USE

To help understand the environmental effects of the carbon tax, we compared petroleum fuel consumption in BC to the consumption in the rest of Canada, counting only those petroleum fuels that are subject to the carbon tax.⁹ To factor out the effects of population growth and economic changes, the results are presented on both a per capita and per GDP basis.

The overall finding is that BC's petroleum fuel consumption per person dropped substantially (by 15.1%) from 2008-2011 (Table 1). Moreover, it declined 16.4% more than in the rest of Canada during this period – a remarkably large difference.

Table 1: Per capita consumption of refined petroleum products subject to the BC carbon tax (% change)

Jurisdiction	2008	2009	2010	2011	2008-2011
British Columbia	-1.0%	-10.1%	2.2%	-7.6%	-15.1%
Rest of Canada	-1.5%	-5.1%	4.3%	2.3%	1.3%
<i>Difference</i>	<i>0.5%</i>	<i>-5.0%</i>	<i>-2.1%</i>	<i>-9.9%</i>	<i>-16.4%</i>

Source: Statistics Canada

To better decipher what role the carbon tax played in these changes, it is also helpful to look at trends before 2008. If the carbon tax was a major driver of the post-2008 changes, we would expect to see that the rate of change in fuel use in BC compared to the rest of Canada declined more sharply in 2008-11 than in 2000-2007. And indeed that is what occurred.

⁹ The petroleum-based fuels subject to the tax and included in our sample are: butane and butane mixes, naphtha specialties, motor gasoline, stove oil/kerosene, diesel fuel oil, light & heavy fuel oils, petroleum coke, and still gas. Aviation fuel is not included because fuel used for flights outside BC is not taxed, and that accounts for the bulk of aviation fuel consumption; available fuel data is not separated into extra-provincial and intra-provincial flights).

From 2000-2007, per capita fuel consumption in BC declined by 2% more than in the rest of Canada annually; whereas from 2008-12, it declined by 5.6% more than in the rest of Canada – a substantial difference (Table 2). So, while BC was already doing a bit better than the rest of Canada in reducing fuel use before 2008, its advantage grew sharply after the carbon tax came in – suggesting that the tax was an important contributor to BC’s success in reducing fuel use in the past four years.

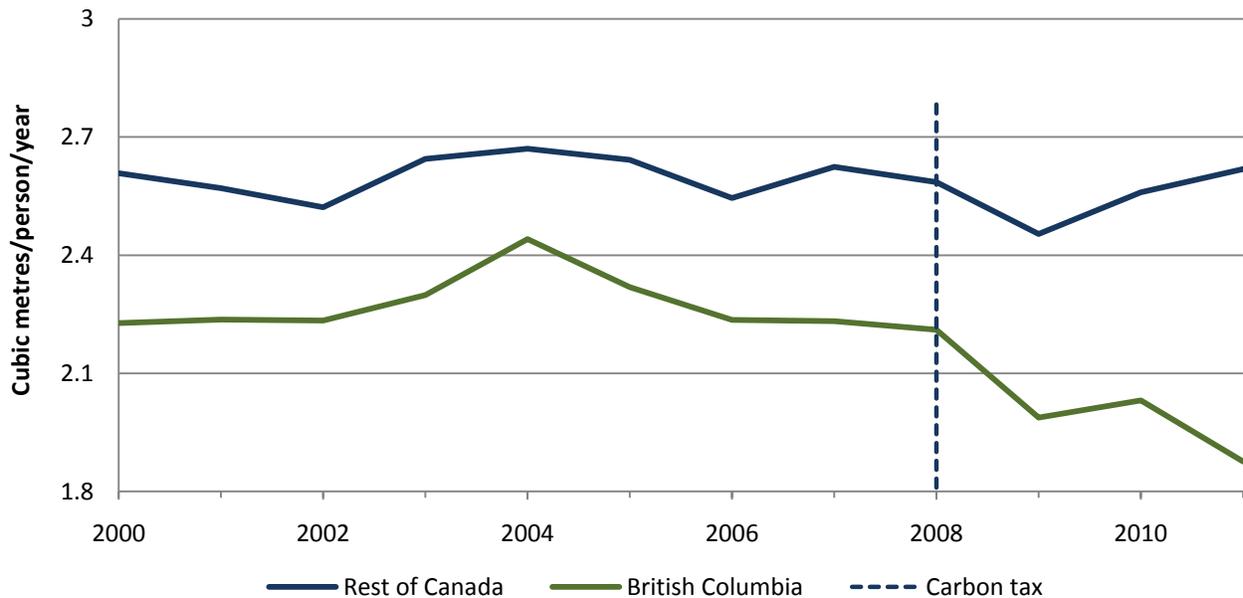
Table 2: Average annual change in per capita consumption of refined petroleum products subject to the BC carbon tax (% change)

Jurisdiction	2000-2007	2008-2011
British Columbia	-2.1%	-5.2%
Rest of Canada	0.1%	0.4%
Difference	-2%	-5.6%

Source: Statistics Canada.

Figure 1 shows these same results (from 2000-2011) in graphic form, and illustrates the sharp decline in BC fuel use after the carbon tax was introduced.

Figure 1: Sales of refined petroleum products subject to BC carbon tax, per capita

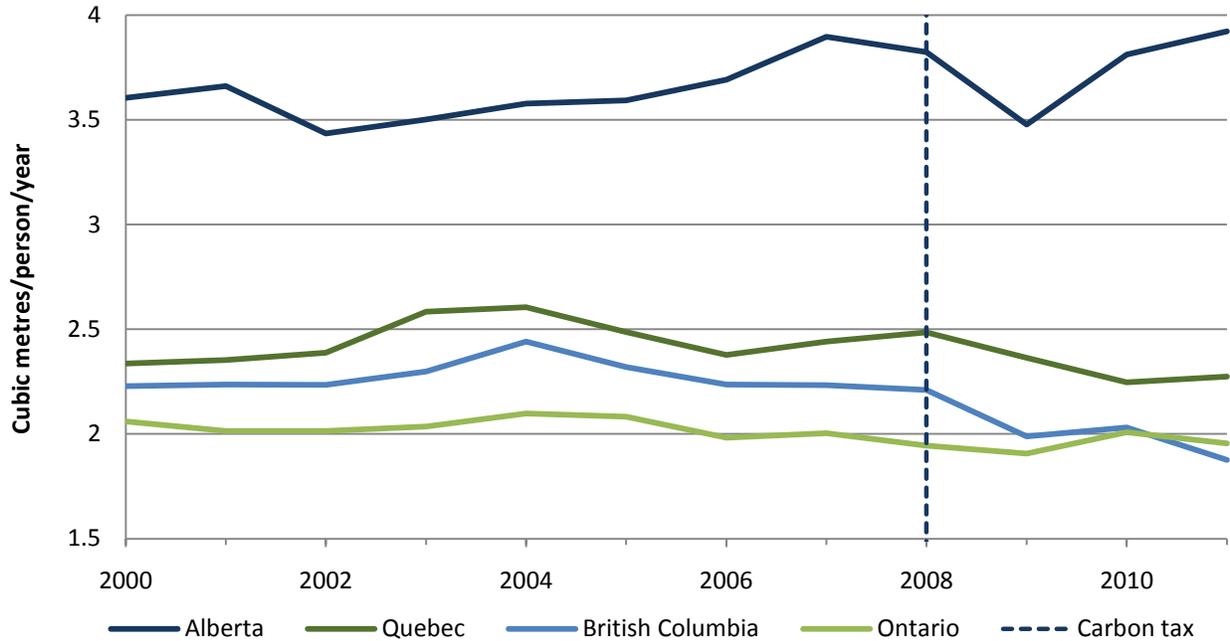


Source: Statistics Canada

BC’s per capita consumption of petroleum products also improved in comparison with other provinces, and is now the lowest in the country. Among Canada’s largest provinces (and largest fuel consumers), BC has made the most rapid progress in reducing fuel use since 2008, when the carbon tax came in (Figure 2). BC now has the lowest per capita fuel use of any large province in Canada, passing Ontario (which

was consistently ahead before BC's carbon tax shift). It is noteworthy that fuel use has also declined appreciably since 2008 in Quebec, which also has a carbon tax (albeit at a much lower price than BC's).

Figure 2: Sales of refined petroleum products subject to BC carbon tax, per capita



Source: Statistics Canada

The above results are shown on a per capita basis, to factor out the effects of population changes. Another way to present the results is on a per GDP basis, to factor out the effects of overall economic changes (at least in part). Table 3 (which is similar to Table 1), shows that BC's fuel consumption per unit of GDP has dropped by 16.7% compared to the rest of Canada since 2008 – a substantial difference (and slightly greater than the difference measured on a per capita basis). This is further evidence indicating that the carbon tax has played an important role in driving a major reduction in BC's fuel use since 2008.

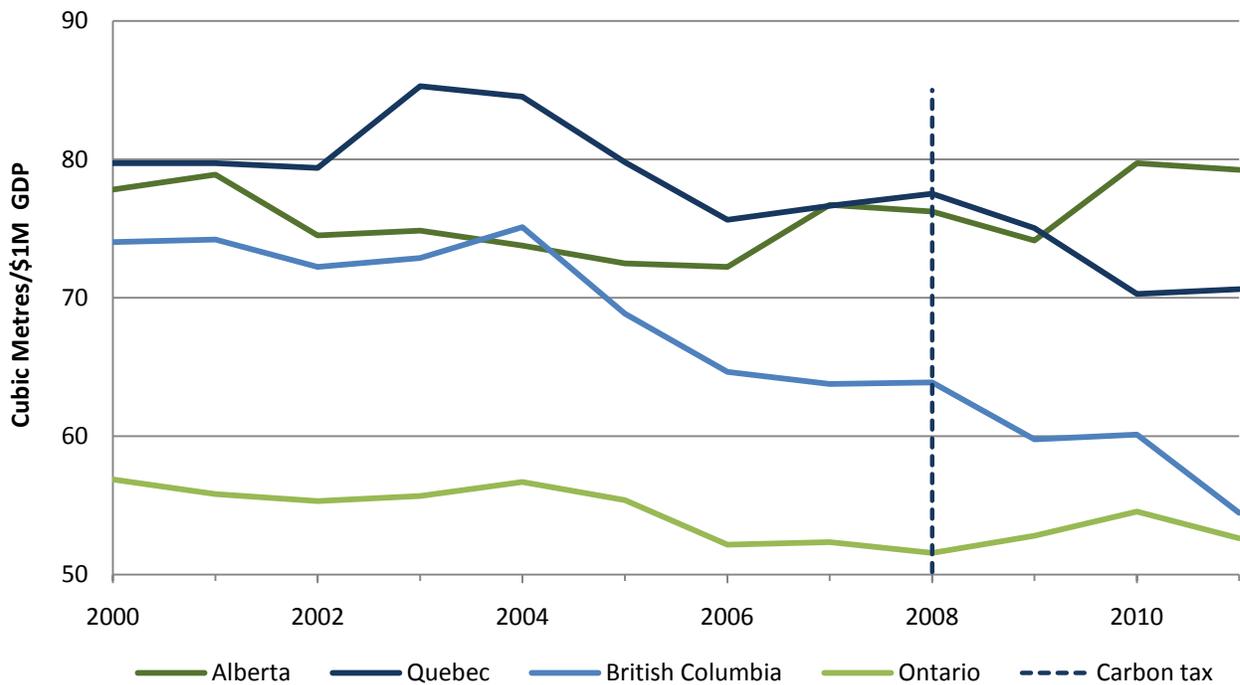
Table 3: Sales per GDP of refined petroleum products subject to the BC carbon tax

Jurisdiction	2008-2011
British Columbia	-14.7%
Rest of Canada	2.0%
Difference	-16.7%

Source: Statistics Canada. Percentages may not add due to rounding.

The same story emerges when BC's results are compared to Canada's largest provinces on a per GDP basis. Since 2008, BC's petroleum consumption per unit of GDP has dropped more rapidly than in other provinces (Figure 3). (Of note, the second greatest decline has been in Quebec, which also has a carbon tax, at a lower rate than BC's.)

Figure 3: Sales of refined petroleum products subject to BC carbon tax, by province, per \$1 million GDP



Source: Statistics Canada

The other significant finding, as shown in Figure 3, is that BC's GDP is growing more productive in relation to petroleum fuel consumption, meaning it is "decoupling" its GDP growth from its petroleum consumption. This is a trend that seems to have begun in 2004, but which has been supported and accelerated by the introduction of the carbon tax in 2008.

MOTOR GASOLINE (DRIVING)

The above figures show changes in *overall* use of all petroleum fuel products (subject to the carbon tax). To gain some insights specifically into how the carbon tax has affected the behaviour of *drivers*, one can examine just the changes in *motor gasoline* consumption (one component of the overall fuel use numbers). Since 2008, per capita gasoline use in BC has declined by 7.3% more than in the rest of Canada (Table 4) – a substantial difference. Gasoline use in BC was already declining faster than in the rest of Canada from 2000-2007 (see Figure 4).

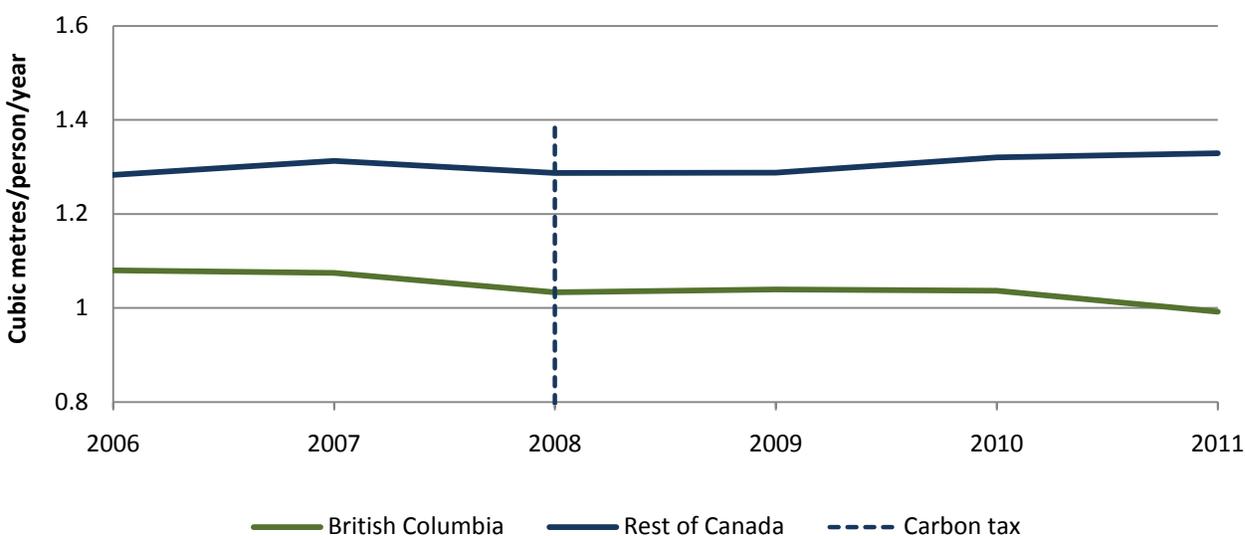
These results indicate that the carbon tax has probably had some effect in motivating BC drivers to use less gas, though its effect on driving has not been as great as on other types of fuel use. This suggests that driving behaviour may be a bit slower to respond to price changes than are other types of fuel-using behaviours (in economic terms, its elasticity may be lower, at least in the short run). However, as the carbon price rises, and drivers have more time to adjust (e.g. when it is time to buy a new car), we can expect to see even greater effects on driving behaviour. And indeed, that is exactly what the data show;

in 2010 and 2011, as the carbon price grew, gasoline use in BC declined much more rapidly than in the rest of Canada (outpacing the rest of Canada by 5 percentage points).

Table 4: Sales per capita of motor gasoline, 2008-11

Jurisdiction	2008-2011
British Columbia	-4.0%
Rest of Canada	3.3%
<i>Difference</i>	-7.3%

Figure 4: Motor gasoline sales per capita



Another important factor in changing driving behaviour is the availability of alternative means of transportation. By continuing to invest in public transit, making it more convenient and affordable, BC can further reduce driving-related GHG emissions.

GREENHOUSE GAS EMISSIONS

The ultimate goal of BC's carbon tax is to reduce GHG emissions, by taxing the fossil fuels that are their major cause. As noted earlier, data on GHG emissions is available only through 2010. Therefore, changes in fuel use (through 2011) provide the most current indicator of the tax's effects. But it is also worthwhile to review the changes in GHG emissions since the tax came in, to get a fuller picture. To that end, we compare GHG emissions in BC to emissions in the rest of Canada, counting only those sources that are subject to the BC carbon tax (as was done for fuel use).¹⁰

¹⁰ The GHG emission sources subject to the tax and included in our sample are: stationary combustion emissions from fossil fuel production and refining; mining and oil & gas extraction; manufacturing; construction; commercial, institutional, and residential; agriculture and forestry; and fuel for gasoline and diesel vehicles, domestic marine and railway. Aviation emissions

From 2008 to 2010, BC's per capita GHG emissions declined by 9.9% -- a substantial reduction. During this period, BC's reductions outpaced those in the rest of Canada by more than 5% (Table 5).¹¹

Table 5: GHG emissions per capita from sources subject to BC carbon tax (% change)

Jurisdiction	2008	2009	2010	2008-10 Total
British Columbia	-2.8%	-3.3%	-6.8%	-9.9%
Rest of Canada	-2.7%	-3.9%	-0.7%	-4.6%
Difference	0.1%	0.6%	-6.1%	-5.3%

Source: GHG emissions data from Environment Canada, National Inventory Report; population data from Statistics Canada. Rounding in the National Inventory Report may affect the accuracy of the results.

These reductions are somewhat less dramatic than the changes seen in fuel use (a 15.1% reduction), but that may be because GHG data is not yet available for 2011 (a year in which BC petroleum fuel use per capita dropped by nearly 10% compared to the reductions in the rest of Canada – see Table 1). At the same time, there may be provincial policies outside of BC that account for these reductions, and which are outside the scope of this paper.

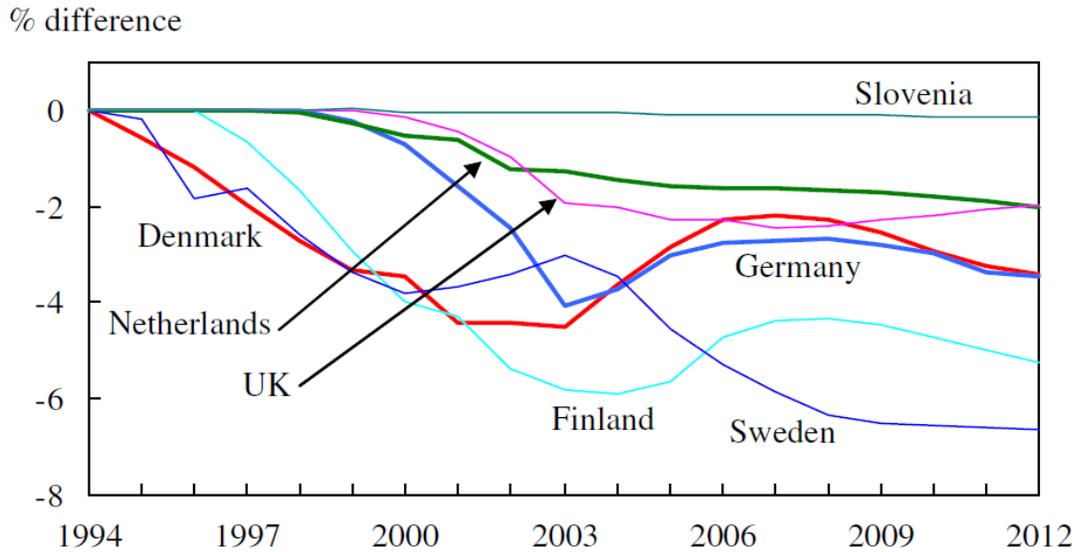
It is hard to say exactly how much of this decline in GHG reductions (post-2008) was due to the carbon tax, since BC's GHG emissions were already dropping relative to the rest of Canada prior to 2008. However, the reductions are certainly consistent with the expected effects of a carbon tax, and they are in line with the (even greater) reductions seen in fuel use during 2008-11, so they provide a further indication that the carbon tax has helped to accelerate BC's emission reductions – apparently by a substantial amount.

Moreover, the experience in BC to date is consistent with the results witnessed in seven European countries that brought in carbon tax shifts in the 1990s. In those countries, the carbon tax shifts caused GHG emission reductions ranging from 2 to 6%, according to a rigorous empirical study funded by the EU (Figure 5).

are not included, because some portion of these emissions is not subject to the tax. Combustion for heat and electricity is excluded from the GHG data, since this is more comparable to the fuel use data, was not broken down by fuel type, and BC produces very little thermal power and no coal electricity.

¹¹ Some of the overall GHG emissions decline in this period can be attributed to the economic downturn.

However, BC's emissions declined more than those in the rest of Canada, which also experienced the downturn, so GDP changes do not account for all of BC's better performance.

Figure 5: The Effect of Environmental Tax Reform on GHG Emissions


Note(s) : % difference is the difference between the base case and the counterfactual reference case.

Source:

Andersen, M.S. *et al* (2007), *Competitiveness Effects of Environmental Tax Reform*, (European Commission) online: <http://cordis.europa.eu/documents/documentlibrary/124729471EN6.pdf>

ECONOMIC EFFECTS (GDP)

When the carbon tax was brought in, there were some predictions that it would harm BC's economy. Four years later, the data show that BC's economy has outperformed the rest of the country over the period that the carbon tax has been in place (Table 6).

Table 6: British Columbia and Canada GDP per capita since 2008

Jurisdiction	2008	2009	2010	2011	2008-11 Total
British Columbia	-1.16%	-3.90%	1.64%	1.92%	-0.15%
Rest of Canada	-0.45%	-3.88%	1.91%	1.38%	-0.23%

Source: Statistics Canada

The difference in GDP change is small (0.1% from 2008-11); moreover, the carbon tax is just one small factor in BC's overall economic picture. Therefore, while it would be a stretch to claim that the tax shift has had a positive impact on the economy, the data appear to indicate it has not had a negative effect.

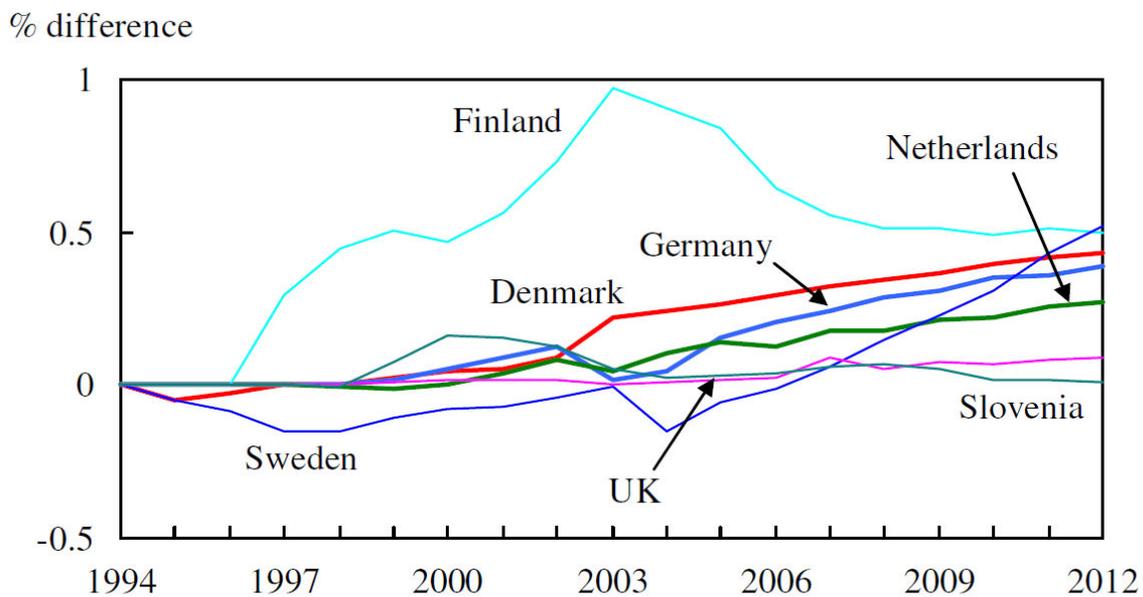
That is a very significant result. BC has brought in a serious policy to curb fuel use and GHG emissions. It has a carbon price that is higher than anywhere else in North America, and most other countries in the

world – one that seems to be effective in curbing fuel use and GHG emissions. Yet there is no evidence at this point that it is harming BC’s economy.¹²

Although Sustainable Prosperity believes more work specific to BC is required to confirm these conclusions over time (particularly some rigorous econometric modelling), we can also point to other policy experiences – in other jurisdictions – that provide further context for these conclusions.

In particular, as with the environmental impacts, the results to date in BC are consistent with the results seen in European countries which have had a carbon tax shift in place for over a decade. The same major EU-funded economic study we cited above found that in all cases the overall effect on GDP had been neutral or slightly positive (Figure 6).

Figure 6: The Effect of Environmental Tax Reform on GDP



Note(s) : % difference is the difference between the base case and the counterfactual reference case.

Source: Andersen, M.S. et al (2007), *Competitiveness Effects of Environmental Tax Reform*, (European Commission) online: <http://cordis.europa.eu/documents/documentlibrary/124729471EN6.pdf>

This European experience is consistent with the initial trends emerging in BC, after just four years of experience with its carbon tax shift.

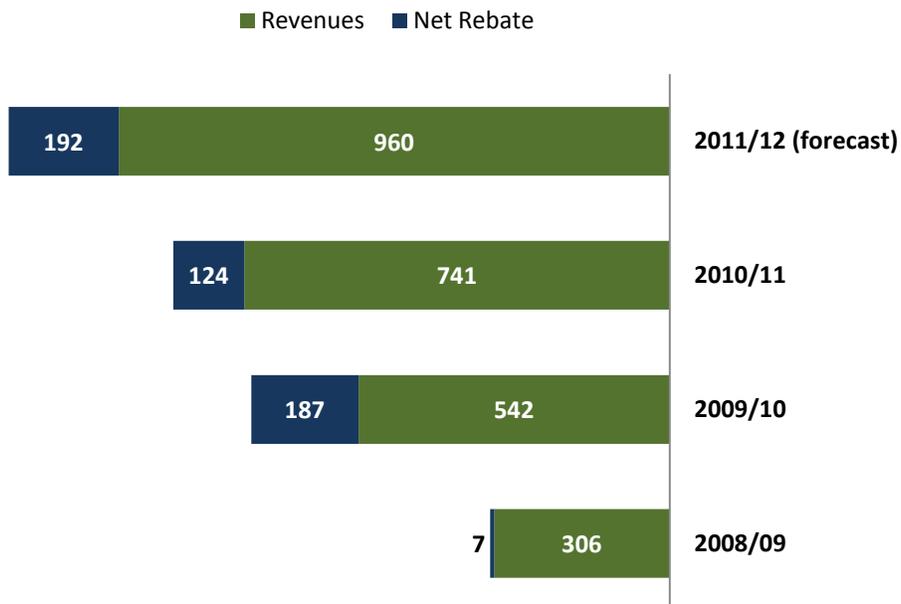
¹² That is not to say that there have not been any adverse economic effects on particular sectors, firms, or households. No doubt there have been. But there has been an equal (or greater) number of firms, sectors and households that have experienced positive economic effects from the tax shift.

IMPACTS ON TAXPAYERS (FISCAL IMPACTS)

The fact that the BC carbon tax -- like its older European counterparts -- has not had an overall adverse economic impact can be traced in large part to the use of a tax *shift*.¹³ The increase in carbon taxes is to be matched by an equivalent reduction in other taxes; so the aggregate result is no overall increase in taxation or government revenues. Specifically, in BC the carbon revenue is being used mainly to reduce the corporate income tax rate (for both small and large businesses), and the two lowest personal income tax rates by 5%.¹⁴ It is also being used to fund a low-income tax credit¹⁵ and to provide a rebate up to \$200 for northern and rural BC homeowners.¹⁶

While the tax is meant to be revenue neutral, the government has in fact returned \$318 million *more* in income tax cuts than it has collected in carbon tax to date (Figure 7).¹⁷ The 2011/12 budget forecast calls for a further net rebate of \$192 million.

Figure 7: Net Rebates from the Carbon Tax Shift (\$ million)



Source: British Columbia, Ministry of Finance, *Budget and Fiscal Plan* documents (2010, 2011, and 2012).

¹³ Research on the experience of European countries has shown that these corresponding tax reductions are critical to avoiding economic impacts. Without them, a carbon tax alone normally *would* have (small) adverse effects on GDP, at least in the short term. (COMETR, 2007)

¹⁴ British Columbia, Ministry of Finance, "Tax Cuts Funded By The Carbon Tax", online: <http://www.fin.gov.bc.ca/tbs/tp/climate/A2.htm>

¹⁵ This credit was paid in June 2008. The government also paid a one-time climate action dividend payment of \$100 to every resident of the province in the first year of the tax, but this was not financed through carbon tax revenues.

¹⁶ British Columbia, Ministry of Finance, *Budget and Fiscal Plan: 2012/13 - 2014/15* at 66, online: http://www.bcbudget.gov.bc.ca/2012/bfp/2012_Budget_Fiscal_Plan.pdf

¹⁷ *Ibid.*

As a result of the carbon tax shift, BC now has one of the lowest general corporate income tax rates in Canada (tied with Alberta and New Brunswick),¹⁸ and also the lowest personal income tax rate in Canada, for those earning up to \$119,000.¹⁹ The overall effect of the tax shift is two-fold: by increasing taxes on carbon emissions it discourages pollution (which helps the environment), and by reducing taxes on income it encourages employment and investment (which helps the economy).

¹⁸ Canada Revenue Agency, "Corporation Tax Rates", online: <http://www.cra-arc.gc.ca/tx/bsnss/tpcs/crprtns/rts-eng.html>.

¹⁹ British Columbia, Ministry of Finance, "Tax Cuts Funded by the Carbon Tax", online: <http://www.fin.gov.bc.ca/tbs/tp/climate/A2.htm>.

CONCLUSIONS

Almost all economists, and most Canadian business and environmental leaders, believe that a carbon price is the most cost-effective tool for reducing GHG emissions. BC's carbon tax shift, though just four years old, is providing increasing evidence that they are right.

Since 2008, when the tax came in, fuel use and GHG emissions in BC have dropped substantially – much more than in the rest of Canada. At the same time, BC's GDP growth has outpaced the rest of Canada's by a small amount, suggesting that the tax shift has not harmed the province's economy. The BC government has also kept its promise to make the tax revenue neutral; in fact it has returned more in tax cuts (by over \$300 million) than it has received in carbon tax revenue.

BC took a risk in introducing the carbon tax, which was initially quite controversial. BC is one of the few North America states or provinces with a price on carbon – a price that is among the highest in the world. That risk seems to have been rewarded. BC households and businesses now pay the lowest income taxes in Canada, due to the tax shift, and use the least amount of petroleum fuels per capita of any province. BC is also decoupling its economic growth from fuel consumption (and GHG emissions) faster than the rest of Canada. In other words, it is building a greener economy – which should position it well for future success in global markets. It will also help to shelter the BC economy from future petroleum price increases and volatility.

Based on the available evidence, Sustainable Prosperity's conclusion is that the carbon tax shift is proving beneficial to BC. It has contributed to noteworthy environmental gains, and lower overall taxes, without evident harm to BC's economy (and potentially improving its future positioning). As with all complex public policy issues, more detailed economic analysis is necessary. But based on our analysis we believe that the results to date suggest that environmental tax shifting – increasing taxes on pollution and lowering them on income – is proving to be smart policy, for the environment, the economy, and taxpayers.