



# Tax Mechanisms to Promote Sustainable Transportation

## Overview

Sustainability is quickly becoming a high priority of the Canadian public. The goal of making personal transportation choices more sustainable—because of their scope, complexity and impacts—is both challenging and potentially rewarding. Taxation is one tool that governments can use to pursue this objective, and tax shifting is an internationally accepted environmental strategy.

Most tax mechanisms that influence individual transportation decisions are provincial or federal, including those related to personal transportation expenditures (through income taxes), fuel and vehicle purchases (through sales and excise taxes) and vehicle ownership (through registration levies). There are Canadian and foreign examples of applications in all these areas. Business taxation is another opportunity to promote sustainable transportation.

Although urban transportation is a primary interest, Canadian municipalities have limited taxation authority and flexibility. Even property taxes, which are collected and used by municipal governments, are tightly controlled by provincial legislation. Taxation of parking facilities or commercial parking transactions is generally not within the power of local authorities, except in Greater Vancouver.

## Resources

- See references provided throughout the document

## Related case studies in this series

- *Urban Transportation Pricing Options*
- *TransLink Parking Tax*

## Introduction

Taxes generate the revenue that governments need to perform various functions. They can also be used to influence the consumption of goods and services by making certain transactions either less or more attractive. The many kinds of tax include sales and excise taxes on goods and services, income taxes, personal property and real estate taxes, and permits and tolls.

This paper discusses several topics related to the use of taxes to help make personal transportation choices more sustainable. It briefly reviews the philosophy of doing so, and identifies several key issues that are integral to the consideration of tax changes. It then addresses a number of taxation approaches and examples using the following themes:

- Personal travel
- Vehicles and fuels
- Land use and parking
- Business operations

## Tax shifting and sustainability

One tool that is commonly advocated in support of sustainable development is the shifting of a portion of a government's tax base onto goods, services and activities that have harmful environmental impacts. This has two effects: first, revenue is generated to offset the external social costs of those goods, services and activities; and second, consumption of those goods, services and activities is discouraged.

Such “environmental tax shifting” is under way in Europe, where the Organization for Economic Cooperation and Development has been encouraging its implementation for many years. One typical approach is to lower taxes on environmentally sensitive goods, services and activities (e.g. reducing taxes on renewable fuels, or offering tax credits to businesses that adopt energy-efficient technologies). Another approach is to increase taxes on environmentally damaging activities or goods (e.g. putting a carbon tax on fuel).

Revenue neutrality is one aspect of tax shifting that can greatly enhance its palatability to the public and decision-makers. It occurs when a net increase in taxation is avoided by using new revenues to fund new expenditures or tax reductions.

*References:*

- Pembina Institute, “Environmental Tax Shifting in Canada: Theory and Application”, March 2003 at [www.pembina.org/pubs](http://www.pembina.org/pubs)
- Organization for Economic Cooperation and Development, “Greening Tax Mixes in OECD Countries: A Preliminary Assessment”, 2001 at [www.oecd.org/publications](http://www.oecd.org/publications) (search keyword “greening tax mixes”)

## Key issues and challenges

Jurisdictional authority is a key issue in Canadian taxation, particularly in urban areas where concerns over sustainable transportation are greatest. With very few exceptions (e.g. Greater Vancouver) Canadian regional and local governments are heavily dependent on property taxes, and have limited abilities to levy other forms of taxation. Road tolls, parking taxes, sales taxes, vehicle levies and other tools are simply not available to the vast majority of municipalities.

Several other issues can arise during the consideration of a change in tax policy. Those that are most relevant to the pursuit of sustainable transportation include:

- The expected increase or decrease in tax revenue
- The effectiveness in encouraging or discouraging targeted goods, services and activities—i.e. will a new tax intended to discourage a certain behaviour be visible and meaningful, and are attractive alternatives available?
- Fairness to different individuals and groups—i.e. is the change equitable both horizontally (say, between rural and urban residents) and vertically (say, between lower- and higher-income households)?
- Tax exportability—i.e. will a new tax be paid by non-residents who are enjoying public services funded by local taxpayers?
- Simplicity of assessment and collection, so that revenues are not exceeded by administration costs
- Avoidance of unintended consequences, also known as perverse effects

It is also important to consider the general acceptability of the change to taxpayers and decision-makers, and the possibility of overcoming resistance through education and outreach.

## Approaches and examples: Personal travel

### Tax-exempt commuter benefits: Experience in the United States

In the early 1980s, the United States began to exempt employer-provided transit benefits from taxation. This change was made to encourage transit use and level the playing field with employer-provided parking, which was not considered to be a taxable benefit.

Employers can provide transit (also known as “commuter choice”) benefits without incurring corporate payroll tax, and employees avoid paying personal income taxes. Because it’s cheaper to give transit benefits than increase salaries, a \$1,200 annual transit benefit has the same value as a \$2,000 raise. Employers can keep payrolls constant but reduce taxes by simply transferring wages to benefits. As an alternative to employer-provided benefits, or in combination with them, individuals can also allocate eligible amounts from their pre-tax salary to pay for transit or vanpool services.

In 1984, eligible employers were allowed to offer individuals up to US\$15 per month in tax-free transit benefits. This change led to a 25% increase in transit use at participating workplaces. It also attracted many new transit users—as many as 30% of program participants in some areas.

The permitted level of tax-free commuter benefits has now risen to \$105 per month, and the program is widely considered to be successful. In 2002, 27% of employers in metropolitan San Francisco provided some level of tax-exempt commuter benefit to their employees, and more than 25% of the area’s commuter rail users received transit benefits at work.

*References:*

- Canadian Urban Transit Association, “Tax-Exempt Transit Benefits: New Insights Make the Case”, Issue Paper 15, 2005 (available at [www.cutaactu.ca](http://www.cutaactu.ca))
- [www.commuterchoice.com](http://www.commuterchoice.com).

### Tax-exempt commuter benefits: Experience in the United Kingdom

To encourage the development of “travel plans” by British employers, the U.K. government exempts several employer-provided commuter benefits from income tax and employment insurance. The eligible benefits include:

- Buses with nine or more seats that are used principally to carry employees between work and home
- Purchase subsidies for bus passes that are used principally for commuting

- Purchase subsidies for bicycles that are used principally for commuting, and related safety equipment
- The cost of alternative travel arrangements for carpoolers to get home if they are required to work late, or in case of domestic emergencies, for up to 60 days annually
- Workplace parking for bicycles and motorcycles
- Provision of up to six free “cyclists’ breakfasts” per year
- A mileage allowance (up to 20 pence per mile) for employees who make business trips by bicycle
- Low interest or interest-free loans to help employees buy seasonal transit passes, as long as the loan is repaid
- Seasonal transit passes for business travel, as long as the per-trip cost is less than the equivalent cash fare, which employees may also use for personal travel

*Reference:*

- *HM Revenue & Customs, “IP 176 – Green Travel” at [www.hmrc.gov.uk/pdfs/ir176.htm](http://www.hmrc.gov.uk/pdfs/ir176.htm)*

### **Canada’s transit pass tax credit**

In July 2006, Canada’s federal government implemented a non-refundable personal income tax credit for monthly (or longer-term) transit passes. The credit is 15.25% of eligible expenses in the last half of 2006, and 15.5% in 2007 or later years. Taxpayers can also claim a credit for the transit pass expenses of dependants. The cost of this tax credit to the federal government is estimated to be \$150 million in 2006-2007 and \$220 million in 2007-2008.

*Reference:*

- [www.transitpass.ca](http://www.transitpass.ca)

### **Tax exempt transit benefits: A Canadian proposal**

For more than a decade, the Canadian Urban Transit Association has led its allies in advocating for tax-exempt status of employer-provided transit benefits. This measure would be similar to those already enacted in the United States and the United Kingdom.

A recent study concluded that the measure would be expected to have the following impacts by 2016 in Canadian cities with transit service (2005 dollars):

- 41% of employees would be offered transit benefits, and the average benefit would be \$55 per month.
- Transit ridership would increase about 17%, and greenhouse gas emissions from commuting would decrease by 2.2%.
- Total costs to society would be reduced by about \$780M, while federal taxes foregone would be between \$154 million and \$176 million.

*Reference:*

- *IBI Group for Canadian Urban Transit Association, Tax Exemptions for Employer-Provided Transit Benefits, 2005 (available at [www.cutaactu.ca](http://www.cutaactu.ca))*

### **Approaches and examples: Vehicles and fuels**

Cleaner, more efficient vehicles and fuels also contribute to sustainable transportation. This section discusses how related taxes can help.

#### **Taxes on vehicle purchases**

Special taxes related to the fuel consumption ratings of new vehicles can encourage consumers to choose more efficient models.

In Ontario, a Tax for Fuel Conservation applies to the sale of new passenger and sport utility vehicles that exceed certain minimum levels of fuel consumption. The tax on passenger vehicles rated at more than 6.0 litres per 100 kilometres of highway driving ranges from \$75 to \$7,000. The tax on sport utility vehicles rated at more than 8.0 litres per 100 kilometres of highway driving ranges from \$75 to \$3,200. Ontario also offers a Tax Credit for Fuel Conservation to purchasers of new passenger vehicles rated at less than 6.0 litres per 100 kilometres of highway driving. The credit is equivalent to the provincial sales tax on the purchase, to a maximum of \$100. No credit is available to purchasers of sport utility vehicles.

Several Canadian provinces offer a partial sales tax rebate on hybrid vehicles. The rebates range up to \$2,000 in British Columbia, \$1,000 in Ontario, \$1,000 in Quebec and \$3,000 in Prince Edward Island. Until 2008, British Columbia offers a 100% reduction in provincial sales tax on hybrid passenger vehicles to a maximum of \$2,000, and a 50% reduction for other alternative fuel passenger vehicles to a maximum of \$1,000.

In the United States, hybrid vehicle buyers are eligible for a federal income tax credit of up to \$3,400, depending on the efficiency of the vehicle in question. Many state and local governments offer related tax incentives.

*References:*

- *Ontario Ministry of Finance at [www.trd.fin.gov.on.ca](http://www.trd.fin.gov.on.ca)*
- *U.S. Internal Revenue Service at [www.irs.gov](http://www.irs.gov) (search keyword “hybrid”)*

## Fuel taxes

Giving preferential tax treatment to fuels that are renewable or have lower carbon content can make them attractive to individuals and fleet managers. For example, Canada's federal government exempts propane, natural gas, ethanol and biodiesel from its 10 cents per litre fuel excise tax. This effectively reduces the federal tax on 10% ethanol blended fuel by 1 cent per litre. Several provinces similarly exempt ethanol and biodiesel from their own fuel taxes, creating an even greater tax exemption.

Another increasingly common tactic is to redirect a portion of fuel taxes to support sustainable transportation. Several Canadian provinces do so— British Columbia, Manitoba, Alberta and Quebec transfer fuel tax revenues to municipalities for infrastructure improvements that may be used for public transit. Several Canadian communities receive a provincial gas tax transfer that is targeted to transit or transportation uses (e.g. British Columbia transfers 12 cents per litre to Greater Vancouver for roads and transit and 2.5 cents per litre to Victoria for transit, while Quebec transfers 1.5 cents per litre to Montreal for transit). Ontario municipalities with transit systems now receive 2 cents per litre to increase transit ridership by improving assets or operations.

### References:

- *Natural Resources Canada, "Current Consumption Taxes – Fuels For Automotive Use" at [fuelfocus.nrcan.gc.ca/fact\\_sheets/table2\\_e.cfm](http://fuelfocus.nrcan.gc.ca/fact_sheets/table2_e.cfm)*

## Taxes on vehicle registration

Annual registrations are another way to tax automobile ownership, although the typically small levies are not likely to be effective in discouraging it. In Quebec, the provincial government levies an annual \$30 surcharge on vehicle registration fees in seven urban areas that supports transit investments. The Greater Vancouver Transportation Authority has the regulatory authority to create a motor vehicle registration levy. In 2000, the agency proposed a levy of \$40 to \$120 for passenger vehicles (with the price depending on vehicle weight and insurance class), but the proposal was rejected by the provincial government.

Possibly more effective in encouraging ownership of fuel-efficient vehicles is a variation in annual registration fees or surcharges according to the fuel economy rating of the vehicle in question. This approach is taken in the United Kingdom, where annual vehicle taxes vary according to each vehicle's greenhouse gas emissions intensity (measured in grams per kilometre driven). Purchasers of the most fuel-efficient vehicles will pay £0 while buyers of the least efficient vehicles will pay £215.

### Reference:

- [www.direct.gov.uk/motoring](http://www.direct.gov.uk/motoring)

## Approaches and examples: Land use and parking

This section discusses two critical elements of a sustainable transportation strategy in any urban area: supportive land use and successful parking management. The linkage between the two is the fact that parking is one of the dominant land uses in Canadian cities and occupies a significant portion of urban lands.

### Property tax incentives

The property taxation powers of Canadian municipalities are heavily governed by provincial legislation, and do not always provide the flexibility that municipalities would like to have in order to encourage or discourage certain kinds of development.

Conceptually, property taxes could be used to encourage developments that incorporate features supportive of sustainable transportation—preferential carpool parking, for example, or showers and change rooms for cyclists. They could also be used to offset the cost of commuter options programs offered by employers to their workers, or to discourage the provision of excessive parking for motor vehicles.

There are some Canadian examples of property taxation as a tool to achieve higher objectives—for instance, the Ontario government offers up to 40% reduction in municipal property taxes for heritage properties. Another example that can work against sustainability is Ontario's property tax rebate for vacant commercial and industrial buildings.

A fundamental change to property tax systems, one that would see taxes levied on land value rather than building value, has been promoted by the Green Party of Ontario. This proposal is intended to encourage development of vacant lots and increases in building densities, while discouraging the existence of space-inefficient surface parking lots. Such changes would improve the ability of communities to support effective and efficient transit service.

### Reference:

- *Green Party of Ontario, "Envisioning Sustainable Cities & Towns in Ontario", 2006 at [www.gpo.ca/node/905](http://www.gpo.ca/node/905)*

### Parking facility tax

A sustainable transportation strategy might include a tax levied directly on parking facilities (whether by area or number of stalls).

While most Canadian municipalities are not empowered to implement such a levy, as noted above, the Greater Vancouver Transportation Authority has done so. Aerial photography, digital mapping, municipal records and site visits were used to determine the "eligible parking area" of

all non-residential parking sites in Greater Vancouver (which excludes vehicle storage at car dealers, among other exemptions) and an annual levy of \$0.78 per square metre of parking area was set for 2006. This rate is roughly equivalent to a levy in the order of \$20 per stall in a typical off-street parking lot.

*Reference:*

- [www.translink.bc.ca/ParkingTax](http://www.translink.bc.ca/ParkingTax)

### **Parking activity tax**

An activity-based tax on commercial parking transactions, rather than the facility-based tax discussed above, could also encourage parking management and also holds the potential to discriminate effectively between different types of parking. For example, a tax could be applied to long-term parking (e.g. more than three hours) to discourage vehicular commuting, and not applied to short-term parking in order to encourage visitors to downtown areas.

As an example, on behalf of the Greater Vancouver Transportation Authority, the British Columbia Ministry of Small Business and Revenue collects a 7% sales tax on commercial off-street parking transactions in Greater Vancouver.

Another approach recently contemplated by the municipality of Richmond upon Thames, U.K., is to vary on-street parking permit fees according to the fuel efficiency of the vehicle being parked. On-street permits currently cost residents £45 to £100 a year, but in the future residents with low-emission vehicles may pay nothing. Other vehicles may be eligible for discounts of up to 50% or surcharges of up to 300%. Fees for second and subsequent cars could also increase by 50%.

*Reference:*

- *London Borough of Richmond upon Thames, "Changes to Parking Charges Based on CO<sub>2</sub> Emissions" at [www.richmond.gov.uk/parking\\_charges\\_consultation1.pdf](http://www.richmond.gov.uk/parking_charges_consultation1.pdf)*

## **Approaches and examples: Business operations**

### **Corporate tax credits for promoting sustainable transportation**

The State of Oregon offers a Business Energy Tax Credit to companies that invest in less-polluting transportation fuels and other sustainability measures (e.g. energy conservation, recycling, renewable energy). Commuter options programs and other investments in transportation demand management are eligible. The tax credit amounts to 35% of project costs that represent incremental investment beyond standard practice. The credit rolls out over five years, with 10% in the first and second years and 5% each year after that. Firms with eligible project costs less than \$20,000 may take the tax credit in one year. By

2003, more than 7,400 Oregon energy tax credits had been awarded, based on investments that have saved or generated \$215 million worth of energy each year.

*Reference:*

- *Oregon Department of Energy, "Business Energy Tax Credits" at [www.oregon.gov/energy/cons/bus/betc.shtml](http://www.oregon.gov/energy/cons/bus/betc.shtml)*

### **Personal taxes on company car benefits**

A proposal made in 2005 by the David Suzuki Foundation would see taxation of company car benefits vary according to the vehicle's fuel efficiency, rather than its value. Employees who receive company cars now pay additional income tax based on the cost of the vehicle. The Foundation advocated a lower rate of taxation for employees who drive lower emission company cars, and a greater tax rate for those who choose less efficient cars.

*Reference:*

- *David Suzuki Foundation, "Drive Green: Company Car Tax Shift" at [www.davidsuzuki.org](http://www.davidsuzuki.org)*

## **Conclusion**

Creativity, cooperation and coordination will be required to make full use of taxation's potential to enhance sustainable transportation. The examples cited in this paper illustrate a wide range of mechanisms that are in use or that could be applied in a Canadian context. However, most of them are within federal or provincial jurisdiction, and offer little potential for customized or selective application in urban areas that have widely diverging environmental, social, economic and political circumstances. The innovative approaches used in Greater Vancouver may offer a model that could be replicated and extended with success.