

# The Move Ahead: Funding “The Big Move”

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TORONTO  
BOARD OF TRADE

[VOTETORONTO2010.COM](http://VOTETORONTO2010.COM)

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## INTRODUCTION

In November 2009, the Board launched its VoteToronto2010.com municipal election platform with the release of the discussion paper *Vote Toronto 2010: Framework for a Better City*. The purpose of the Board’s VoteToronto2010.com campaign and platform is to frame the debate and develop solutions to the major issues in the upcoming 2010 municipal election.

Its VoteToronto2010.com campaign is the latest component of the Board’s focus on the global competitiveness and economic development of the entire Toronto region, building on previous work by the Board, such as *From World Class to World Leader: An Action Plan for the Toronto Region* (October 2009) and *Toronto as a Global City: Scorecard on Prosperity* (inaugural report in April 2009 and second edition in March 2010).

Four key themes were outlined in *Vote Toronto 2010: Framework for a Better City*: Fixing the City’s Finances; Growing the City and Regional Economy; Promoting Social Cohesion and Economic Inclusion; and Improving Civic Democracy.

This discussion paper, along with *Regional Transportation: A Guide for the Perplexed*, provides the policy background with respect to funding regional transportation infrastructure, a core component of the “Growing the City and Regional Economy” campaign theme.

Transit is quickly becoming one of the top issues in the 2010 municipal election. It’s easy to see why, as the Toronto region’s transportation infrastructure needs are apparent. Toronto Board of Trade (the Board) members cite improving Toronto’s transportation infrastructure as their top priority. Toronto region residents and businesses are all familiar with the gridlock and congestion that impede our mobility on a daily basis.

Even those outside the region are taking notice. The Organization for Economic Cooperation and Development (OECD) recently undertook a study of Toronto and concluded that our transportation infrastructure, or rather, the lack of it, is the leading drag on our region’s global competitiveness. Toronto’s future growth and prosperity, our ability to remain competitive and attractive for foreign investment, rests in large part on our ability to expand our infrastructure.

After decades of under-investment, the Toronto region finds itself behind its global competitors when it comes to our public transportation system. As we continue to discuss transit during this election campaign, a few questions need to be kept in mind:

- What type of transit plan are we talking about — one that is regionally or municipally focused?
- What is the impact on the Toronto region’s economy and job creation if we fail to expand Toronto’s transportation infrastructure?
- And most importantly, how are we going to finance this infrastructure expansion to ensure it does get built?

## AN ISSUE FOR THE ENTIRE REGION & OUR REGIONAL ECONOMY

Businesses and residents view and approach the Toronto region in similar ways: from a regional perspective. Just as someone living in Oakville may work in downtown Toronto or Vaughan, someone living in downtown Toronto may work in Mississauga or Burlington. People travel and work all across the region; the pattern of people commuting to jobs in the downtown core no longer holds in the Toronto region. To reduce the congestion on Toronto roads, we need to provide people with convenient, efficient and pleasant transportation options to get to their destination, wherever within the Toronto region it might be. *The Big Move* seeks to address this regional imperative — which is why the Board is a champion of this plan.

Thankfully, there is already a comprehensive regional plan in place to address this regional issue. Metrolinx, the provincial agency responsible for creating and implementing an integrated transportation plan for the Greater Toronto and Hamilton Area (GTHA), passed *The Big Move* in November 2008. This bold 25-year, \$50-billion regional transportation plan will transform the GTHA and help us to overcome our decades of under-investment.

But our region won’t get moving if *The Big Move* doesn’t get built. And *The Big Move* won’t get built if we don’t determine how to pay for this ambitious plan.

It is time to move ahead with this public discussion. It is time to move ahead with *The Big Move* and build the Toronto region of the future.

To be sure, funding Metrolinx’s *The Big Move* is not solely a municipal issue. Even with the delay of funding announced in the 2010 Provincial Budget, the provincial government has played, and must continue to play, a leadership role in advancing Metrolinx’s work. The federal government has also provided funds for a number of Metrolinx projects.

But it is also up to municipal leaders to be engaged on this issue. Particularly with a municipal election upon us, now is the time for those seeking municipal political office to be clear on their vision for the Toronto region. Do they support regional economic development through the expansion of our regional transportation system? And, if so, how do they intend to fund it?

A key impediment to the Toronto region’s global competitiveness is our transportation infrastructure. Metrolinx’s *The Big Move* seeks to address this regional deficiency. The Board believes that municipal leaders across the GTHA need to confront how to fund our regional transit expansion and provide leadership on the issue. The provincial government

*The Big Move. Transit City. MoveOntario 2020.*  
What Does It All Mean?

*The Big Move* is the 25-year, \$50-billion regional transportation plan developed by Metrolinx, the provincial agency charged with improving mobility in the GTHA. *The Big Move* will help to connect all of the municipalities in the Toronto region, providing people with mobility options wherever they reside in the Toronto region.

**Transit City** is a TTC plan to build eight streetcar lines throughout the city of Toronto. Transit City lines have been incorporated into *The Big Move*.

**MoveOntario 2020** is an approximately \$12-billion provincial plan that will fund transit expansion in the province. *MoveOntario 2020* monies have largely been committed to funding the initial Metrolinx projects announced in April 2009.

certainly will play a significant role in finding a solution. But our municipal leaders must also be part of the equation. And voters need to know where they stand on this critical issue for Toronto's future.

## Congestion Costs Everyone in the GTHA

### Regional Growth

2008 population: 6 million

2031 population (projected): 9 million (and over 1 million more cars)

### Time stuck in traffic (average daily commute times) - GTHA

1992: 68 minutes

1998: 76 minutes

2008: 82 minutes

2031 (projected): 109 minutes (if no significant infrastructure expansion)

### Average Daily Commute Times for Canadian CMAs (2006)

Calgary: 66 minutes

Ottawa-Gatineau: 66 minutes

Vancouver: 67 minutes

Montreal: 76 minutes

*Toronto: 79 minutes*

### Cost to the GTHA Economy

\$6 billion in 2006

\$15 billion in 2031 (if there is no significant infrastructure expansion)

### Our Environment

Air pollution is linked to 440 premature deaths per year in the city of Toronto

## FUNDING OUR WAY AHEAD

To date, *The Big Move* has been funded entirely by the provincial and federal governments. *MoveOntario 2020*, announced by the McGuinty government in June 2007, has provided the seed money to get Metrolinx — and a number of other important regional projects, such as the Union-Pearson Air-Rail Link and the Spadina Subway extension — rolling. Through *MoveOntario 2020* the provincial government has committed approximately \$12 billion. The federal government has also contributed substantial funds to a number of Metrolinx projects, such as Union Station revitalization, the Sheppard East LRT, the Spadina subway extension, York VIVA and GO Transit expansion, totaling over \$2 billion of funding commitments in the Toronto region since 2007.

These investments are substantial and welcome. Investment in infrastructure renewal and expansion throughout Canada’s cities is critically needed. The level of investment in Toronto’s public transit system between 1993 and 1997 was the lowest among selected OECD metropolitan regions. New investment in urban infrastructure in Toronto grew by only 0.1 per cent per year between 1978 and 2000, after growing by an annual average of 4.8 per cent between 1955 and 1977. Through *The Big Move*, the Toronto region is intending to make up for past decades of under-investment. This requires investment on a scale much larger than has been seen even in recent years.

Both the federal and provincial governments provide Toronto region municipalities with some stable, long-term infrastructure funding. For example, the federal Gas Tax Fund — which was made permanent in 2008 — provides approximately \$247 million annually to the municipalities in the Greater Toronto Region. Municipalities, though, can use these funds on a variety of infrastructure projects, not just transit projects. Canada remains the only OECD and G8 country without a long-term federal transit plan. Provincially, there are a number of programs in place, including *MoveOntario 2020* and the provincial gas tax program, which provides two cents per litre of provincial gas tax revenues to municipalities for spending on public transit. With the exception of the *MoveOntario 2020* funds, none of these revenues flow to Metrolinx.

At the same time, both the federal and provincial governments are facing record deficits. At approximately \$49 billion and \$21 billion, respectively, the federal and provincial deficits are forcing these governments to examine how to contain their spending, leaving little room for significant new funds for the construction of Metrolinx’s plan.

At present, we have only about 20 per cent of *The Big Move* funded through senior government commitments, with both of these governments severely constrained in their ability to provide significantly more funds in the near term. If we wish to move ahead with *The Big Move* at the planned — and needed — pace of construction, then new sources of revenue dedicated to funding the Toronto region’s transit expansion must be found.

## HOW TRANSIT EXPANSION IS FINANCED ELSEWHERE

Financing infrastructure expansion through revenue sources other than general government revenues is not a new concept — either in Canada or internationally. Indeed, in most jurisdictions the public recognizes and accepts that new transit construction needs to come with new revenue sources.

In Canada, TransLink, Vancouver’s regional transportation authority, has turned to a number of revenue tools, such as gas taxes, a regional parking surcharge and vehicle registration fees, to fund its transit expansion. Internationally, there are numerous other examples. In Europe, London, Milan, Oslo and Stockholm have all introduced congestion pricing areas that both reduce traffic congestion in their business districts and help to finance other infrastructure.

In general, the public has been receptive to these new revenue tools, particularly when there has been a clear link between the money raised through the revenue tool and improved mobility, quality of life and new infrastructure provision. For example, in the 2008 US election, there were 32 referendums across the country asking voters to approve various revenue tools to enable new transit construction. Three-quarters of these measures were approved, often receiving over two-thirds of the voters’ support. Significantly, 67 per cent of voters in Los Angeles County approved a sales tax increase that will go toward mass transit expansion, including subway construction.<sup>1</sup> Similarly, after experiencing the improved effects on their mobility, voters in Stockholm voted overwhelmingly to keep a congestion pricing scheme in place following a trial period in 2006.

## THE GTHA’S CHALLENGE AND CHOICE

By law, Metrolinx must present a comprehensive investment strategy for financing the entire regional plan by June 1, 2013.

Assuming that no funds in addition to the *MoveOntario 2020* investment are forthcoming before then, Metrolinx will run out of money to build *The Big Move* within a few years of presenting its investment strategy. For this reason, the Board believes that the strategy should come forward earlier than 2013. In any event, the investment strategy needs to be one that can be implemented as soon as it has been presented. To get there, the public discourse must start now.

So what do we need to move ahead with *The Big Move*?

Based on Metrolinx’s figures, we need to find **\$2 billion a year** over the next 25 years to build our regional vision. This figure does not include costs to operate, maintain and eventually rehabilitate our newly expanded transportation infrastructure.

The Board believes there are many ways to achieve this target. Undoubtedly, investments from all three levels of government will continue to play an important role in constructing *The Big Move*. But to move ahead at the needed pace and to ensure a steady stream of funds, the majority must come from sources of revenue that are dedicated to funding this infrastructure expansion.

It should be noted that employing dedicated revenue tools to fund transportation infrastructure expansion does not absolve any level of government from continuing to provide Metrolinx with additional funds for public transit. Public funding remains critical to getting *The Big Move* built.

The influx of money from revenue tools also does not detract from transit authorities’ need to provide value for money. Indeed, gaining public acceptance to fund expansion through new revenue tools likely

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<sup>1</sup> A complete list and description of the US 2008 ballot initiatives, including the results, please go to [www.cfte.org/success/2008BallotMeasures.asp](http://www.cfte.org/success/2008BallotMeasures.asp)

requires an even more concerted effort by all transit bodies in the GTHA to show the public that they are making the most efficient use of all funds available to them.

## GETTING THE DISCUSSION GOING

To move ahead with the public discussion that needs to take place on how to fund our region’s future growth and prosperity, the public needs to be armed with information about what the potential revenue tools are and the relative merits of each.

That is the role of *The Move Ahead*. With this paper, the Board seeks to begin and to lead the discussion everyone — residents, businesses, politicians and candidates — must have on how we will build for our future. In the pages that follow, we have outlined 16 of the revenue tools and one cost saving delivery method that can be employed, providing a description of each, its relative benefits and drawbacks and a selection of examples of where this tool is being used globally. These tools are grouped according to the amount of revenue they are likely to generate (these are broad order-of-magnitude estimates only):

- Large: over \$1 billion annually
- Medium: between \$500 million and \$1 billion annually
- Small: under \$500 million annually<sup>2</sup>

Since, ultimately, building *The Big Move* is about relieving congestion and improving mobility in the Toronto region, the Board suggests that revenue tools should be assessed on: 1) the net amount of revenue the tool will generate; and 2) the extent that the tool contains congestion. Put another way, the Board recommends the following assessment criteria:

- Technical feasibility (demonstrated through successful use in other jurisdictions)
- Projected revenue generation
- Predictability, sustainability and durability of the revenue generation
- Administrative cost and complexity
- Impact on consumer behavior (i.e. extent that the tool encourages commuters to reduce congestion through car-pooling or other measures that remove cars from the road)
- Social equity and fairness

In time, we will need to limit the number of revenue tools under consideration to a more manageable number and to examine how any tools would be effectively implemented.

Now is the time for this discussion to take place. The Board calls on GTHA municipal candidates to outline how they will finance their transit infrastructure vision and to not rule out any of the revenue tools outlined below.

This is what is needed for our region to move ahead.

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<sup>2</sup> The revenue amounts listed for the revenue tools in the following pages are adapted from a Metrolinx public presentation from its June 12, 2008 Board of Directors meeting. We strongly emphasize, though, that the amounts listed are broad order-of-magnitude estimates only. Further economic analysis will be necessary to determine the actual amount of revenue that will be generated

# LARGE

## Parking Surcharge

A fee placed on non-residential parking spots, including those at offices, retail and other commercial sites. The parking surcharge can be applied either as a fee per parking space or as a fee based on the total parking area. The parking surcharge can be levied on all parking spaces or only on those for which a charge is currently incurred.

Potential Revenue: \$1 Billion (based on a \$1 per day surcharge on commercial parking spaces)

### Benefits

- Raising the cost of parking can encourage commuters to use public transit options
- If reduces car usage, can lead to reduction of sprawl, as commuters try to use public transit options
- If reduces car usage, can help to reduce congestion and pollution
- Easy to implement
- Better reflects the full cost of this resource

### Drawbacks

- GTA commercial concentration tax in early 1990s was not well received
- Data unclear on actual pollution reduction where been employed
- Challenges for small and mid-sized businesses

### Examples of Who’s Using It

Metro Vancouver: TransLink collects a 7 per cent parking surcharge which is applied to the purchase price of paid off-street parking. The parking sales tax is charged directly to the owners of parking facilities and it is their responsibility to determine if and how this fee is passed on to the consumer. ([New Funding](#))

Pittsburgh, PA: Many U.S. jurisdictions levy a parking surcharge. Pittsburgh’s is the highest in the U.S., at 37.5 per cent (was 50 per cent from 2004 to 2009) ([Parking Tax](#))

Chicago, IL: Chicago assesses a flat parking surcharge, rather than a percentage charge, on daily, weekly and monthly parking, with charges ranging from \$0.75-\$2 for daily parking, \$3.75 to \$10 for weekly and \$15 to \$40 for monthly parking. ([Parking Tax - PDF](#))

Perth, Australia: Perth assesses the surcharge on property owners based on the number of parking spaces (AU\$169 to \$195 as of 2006), raising approximately AU\$9 million annually. Businesses with five parking stalls or less are exempted. ([Parking Tax - PDF](#))

## Regional Sales Tax

A special-purpose, dedicated local sales tax that is applied in a given jurisdiction. The regional sales tax is added to the rate of the existing sales tax and funds are usually dedicated to funding specific projects, such as a transportation plan.

Potential Revenue: \$1 Billion (based on a 1 per cent regional sales tax)

### Benefits

- Transparent
- Could be considered more equitable compared to the gas tax as pedestrians, cyclists and public transit users also pay the sales tax
- Can collect revenue from non-residents who use the transportation infrastructure
- Can be dedicated to a specific project
- Easy to implement

### Drawbacks

- Not tied to infrastructure use, so may tax many people who do not benefit from the infrastructure
- Regressive tax, since all people pay same rate regardless of their income
- Sales tax already rising from previous levels on certain items with implementation of HST
- Could push consumers to make certain purchases outside the regional sales tax’s area, impacting retailers and causing additional car trips outside the regional sales tax’s area

### Examples of Who’s Using It

United States: In FY2007 there were 7 states that utilized general sales taxes and a further 10 that utilized specific types of sales taxes (rental car sales taxes) as a source of funding for public transit. ([State funding - PDF](#))

Denver, CO: In 2004, Denver introduced a \$4.7-billion regional transportation plan, known as FasTracks. The main way to finance this plan was the imposition of a 0.4 per cent sales tax across the Denver metropolis. ([Fastracks](#))

Los Angeles County: In 2008, two-thirds of voters approved a ballot initiative to raise the sales tax by 0.5 per cent to pay for more road and mass transit projects. Expected to raise \$40 billion over 30 years. ([Ballot Measures](#))

Seattle, WA: In 2008, nearly 60 per cent of voters approved a ballot initiative aimed at raising \$17.8 billion over 20 years through an increased sales tax in order to fund a transit construction plan. ([Ballot Measures](#))

## Gas Tax

A tax charged on every litre of gasoline sold. In general, the cost of this tax is charged at the pump and is incorporated into the advertised price for a litre of gasoline.

Potential Revenue: \$1 Billion (based on a \$0.10/litre gas and fuel (diesel) tax)

### Benefits

- Consumers are familiar with such a tax
- Transparency
- Ease of administration
- Relatively simple and inexpensive to implement

### Drawbacks

- If used to finance transit expansion, those paying the tax are generally not those using the service
- As vehicles become more fuel-efficient and hybrid electric vehicles become more commonplace, gas tax revenues are expected to decline significantly

### Examples of Who’s Using It

United States: Federally, a gas tax of 18.4¢ per gallon on gasoline and 24.4¢ per gallon of diesel fuel goes to fund the Highway Trust Fund’s highway account, mass transit account and the leaking underground storage tank trust fund. ([Highway Trust Fund](#)) U.S. states also frequently levy gas taxes to pay for their infrastructure needs.

Canada: The federal government devotes 5 cents of their gas tax proceeds to support community infrastructure. ([Canada - PDF](#))

Ontario: Two cents per litre of the provincial gas tax is devoted to funding public transit. ([Canada - PDF](#))

Metro Vancouver: The province collects the gas tax and pays out funds to TransLink — over \$267 million in 2007. ([Canada - PDF](#)) Currently, the gas tax going to TransLink is 15¢ per litre.

Calgary and Edmonton, AB: These cities receive 5¢ of the provincial gas tax collected in each city, which can be spent on roads or transit ([Canada - PDF](#))

Greater Montreal: Gas tax of 1.5¢ per litre of gas sold in the Greater Montreal region goes to the Agence Métropolitaine de Transport (AMT), Greater Montreal’s regional transportation authority ([Canada - PDF](#)) The recent provincial budget proposes to double the gas tax for transit in Montreal and Quebec City.

## Vehicle Kilometres Travelled (VKT)

A form of road pricing that charges drivers directly for each kilometre travelled. In addition to raising revenue through road pricing, VKT can also help to influence consumer behavior (such as when trips are taken) by charging variable rates depending on the time of day (i.e., higher rates for peak period trips).

Potential Revenue: n/a

### Benefits

- Directly ties cost of service with service used
- Can discourage unnecessary trips during peak periods and/or divert vehicle trips to non-peak hours
- Seen as a long-term solution (all travel is charged, regardless of the energy source the car uses, so not affected by fuel efficiency or move to hybrid vehicles)

### Drawbacks

- Expensive to implement and maintain, depending on how implemented
  - Potential perception of privacy concerns, depending on how implemented
- All vehicles, regardless of their fuel efficiency, are charged at the same rate

### Examples of Who’s Using It

Netherlands: The Netherlands is introducing a VKT of €0.03 per kilometre, which will replace other road-related taxes such as the 25 per cent sales tax on new cars, a vehicle tax based on height and weight, and a fuel tax. ([Automobiles](#))

Oregon: In 2006, 300 residents participated in a one-year pilot project where they were charged a fee for the distance traveled, variable by time of day, using GPS technology. The fee was charged when participants refueled — the existing gas tax was deducted from the cost of the fuel and replaced by the VKT fee. ([www.oregon.gov/ODOT/HWY/OIPP/index.shtml](http://www.oregon.gov/ODOT/HWY/OIPP/index.shtml)) ([Oregon Highway](#))

United States: The National Surface Transportation Infrastructure Financing Commission was convened to determine how to overcome dwindling revenues from the federal gas tax (currently the primary source of federal infrastructure financing). One of their main recommendations was the move to a vehicle-miles-travelled fee. ([Final Report - PDF](#))

Germany: Since 2005, all trucks have been charged a VKT of €0.09 to €0.14 per kilometer based on the truck’s emissions levels and number of axles ([Road pricing](#))

## Road Pricing - Tolls

Can be a static or a dynamic form of road pricing. Tolls are a direct user fee charged for use of facility capacity and services. The toll can be a fixed or variable fee a motorist pays to use a road, tunnel or bridge. It can also be a dynamic fee based on time of day, level of congestion or level of emissions from a vehicle. Road pricing can generate revenues to help pay for infrastructure projects and improvements, reduce congestion and encourage public transit use. Road pricing allows for the efficient use of transportation assets.

**POTENTIAL REVENUE: \$1 BILLION (BASED ON A TOLL OF \$0.10/KM ON 400-SERIES HIGHWAYS, QEW, GARDINER AND DON VALLEY EXPRESSWAYS)**

### Benefits

- Places an explicit cost on a public good (found to result in more efficient use of a scarce resource)
- Can be used both to raise revenue and to manage congestion

### Drawbacks

- Can result in traffic diversion to routes that are not tolled
- Depending on how it is implemented, can be expensive to put in place
- Social equity concerns regarding ability of low-income individuals to use roads

### Examples of Who’s Using It

Toronto region: The 407 Express Toll Route, a 108-km highway, opened in October 1997. Driver approval is high and journey times on the 407 are found to be half those of similar, free highways. ([407](#))

New Jersey State: The New Jersey Turnpike uses a peak/off-peak toll differential for E-ZPass users; 7 per cent of motorists altered behavior based on toll differential. ([Turnpike - PDF](#))

Melbourne, Australia: In 2000, the City Link Toll Road, a 22-km road connecting major routes between the airport, the port and industrial centres in the south-east, was introduced. In 2001, the Royal Automobile Club of Victoria reported that 89 per cent of motorists surveyed felt the toll road saved them time and 86 per cent of motorists surveyed felt the toll road made getting around the city easier. ([Citylink](#))

Japan: Almost the entire Japanese highway network has been tolled since 1952 (covering 8,800 km). There is a standard charge for each vehicle for entering the highway system, with an additional per-kilometre traveled fee. ([Japanese highway](#))

## Road Pricing – Congestion Pricing

Can take many forms. The most well-known version of congestion pricing is a cordon-based system that charges all vehicles that enter a particular zone, usually the commercial centre. Congestion pricing can be static (i.e., one flat rate charged, regardless of time of day and other factors) or dynamic (i.e., fee levied is variable depending on time of day, level of congestion and other factors). Congestion pricing has the primary goal of reducing the number of automobiles on the road, thereby enhancing mobility and encouraging more efficient usage of the roadway.

Potential Revenue: \$1 Billion

### Benefits

- Reduction of congestion and pollution
- More efficient use of road space
- Encourages commuters to choose non-car options
- Faster travel speeds for those vehicles in congestion-charge area

### Drawbacks

- Potential for increased traffic outside of congestion charged road spaces
- Expensive to implement
- Pricing and enforcement technologies can be challenging
- Potential perception of privacy concerns
- Social equity issues, due to increased cost of cordon area travel (if driving)
- Works best when there are one or two defined areas, rather than multiple zones, attracting the congestion pricing fee

### Examples of Who’s Using It

London, UK: Implemented its Congestion Charge Scheme in 2003 with mixed results. Overall, since the Scheme began traffic entering the zone decreased by 21 per cent and bus passengers increased by 6 per cent. ([Congestion charging](#))

Oslo, Norway: Implemented its first congestion area in 1987 and traffic dropped between 6 and 10 per cent, with the revenues raised being used for large-scale transportation improvements. ([Traffic Factsheet - PDF](#))

Stockholm, Sweden: A congestion area pilot project was introduced in 2006. Following the trial period, voters in Stockholm voted to keep the congestion area in place due to the benefits in mobility and reduction in congestion that were realized. ([Stockholm](#))

Singapore: Singapore implemented the first Areas Licensing Scheme in 1975. This scheme is a critical part of Singapore’s efforts to limit car usage and congestion, with the result that only approximately 30 per cent of Singaporean households own cars. ([Singapore](#))

## MEDIUM

### National Transit Strategy

Canada is the only OECD country, and the only G8 country, without a long-term, predictable federal transit-investment policy. Almost every public transportation system in the world requires funding in addition to revenues collected through fares, with funding from the national level of government to help cover operating and/or capital expenses.

In Canada, federal funding for local infrastructure is provided through the federal gas tax (committed at \$2 billion annually) and other programs, such as the Building Canada Fund. The result is that in recent years, federal funding for public transit projects has reached unprecedented levels. However, federally, Canada still spends comparably less on transportation than many of its competitor nations. The Toronto Board of Trade, the Canadian Chamber of Commerce, the Federation of Canadian Municipalities, the Canadian Urban Transit Association and others have called for the creation of a national transit strategy.

### Potential Revenue: \$500 Million – \$1 Billion

(Based on a \$2 Billion National Fund Distributed by Province and according to ridership levels)

### Benefits

- Adds to Canada’s global competitiveness
- Would help to put Canadian cities on an equal footing with their international competitors
- Increased productivity and economic growth

### Drawbacks

- Budgetary constraints faced by the federal government

### Examples of Who’s Using It

United States: The US federal government, under the mandate of the Federal Transit Administration, funds about 80 per cent of transit capital projects. The average annual federal contribution was about \$9 billion between 2004 and 2009. An additional \$8.4 billion was specifically allocated to public transit initiatives in the 2009 US stimulus package. The US also has a robust National Highways System which receives a great deal of federal funding (through the Highway Trust Fund). Canada’s national highway system is relatively small and under-funded by comparison.

Europe: Senior levels of government in many European countries underwrite 15 to 30 per cent of transit operating costs and 30 to 100 per cent of capital requirements.

## Predictable, Long-Term Senior Government Funding

Dedicated, long-term funding from the federal and/or provincial governments for transportation operations and/or expansion. At present, both the federal and provincial governments provide GTHA municipalities with some stable funds through dedication of part of gas tax revenues. In 2008, the Toronto region received \$247 million in federal gas tax funds. In 2007-08, \$304 million in provincial gas tax funds (specifically for public transit) were disbursed province-wide.

Capital transit projects take many years to complete. Without stable, predictable funding, it is difficult to undertake many of these long-term initiatives. A dedicated, stable commitment to public transit would enable Metrolinx to execute on its long-term transportation plan. This transit expansion will help to bolster the GTHA economy and will provide the investor confidence required to attract private sector investment.

Stable, predictable lifecycle financing for infrastructure is critical. The federal and provincial programs currently in place (such as ReNew Ontario and the Building Canada Fund) are medium-term plans that do not allow municipalities or other bodies to undertake long-term planning. There is no certainty regarding what senior government funds, if any, will be available following the expiry of these programs.

**Potential Revenue: \$500 Million –\$1 Billion**

### Benefits

- Allows for long-term planning and construction
- Creates investor confidence that can assist in attracting private sector investment

### Drawbacks

- Budgetary constraints faced by the federal and provincial governments

### Examples of Who’s Using It

*Quebec:* Government financial assistance covers between 65 per cent and 75 per cent of the operating expenses and some eligible capital asset expenditures. There are also a variety of subsidy programs in place for the Quebec transit authorities. These subsidy programs cover a fixed percentage of eligible capital asset expenditures. ([Canada - PDF](#))

*Alberta:* Both Calgary and Edmonton receive annual Unconditional Municipal Grant Program funding, which includes a Public Transit Operating Assistance Grant. The value of this grant is done on a per capita basis that has not changed since 1994. Stable capital funding from the dedicated gas tax funds is outlined above. ([Canada - PDF](#))

## Infrastructure Bond

Are targeted debt instruments issued by a government that are tied to the construction of a particular infrastructure project(s). Proceeds from an infrastructure bond are reserved for the construction (and potentially operation and maintenance) of identified infrastructure projects, while proceeds from a traditional savings bond generally go into general government revenues to finance a variety of government projects, including infrastructure expansion. Bonds generally attract a relatively low interest rate to reflect the level of risk associated with the instrument. Bonds are an attractive investment instrument for retail and institutional investors because they know that their initial investment is secure and will also yield a steady and predictable rate of return. Canada first issued Victory Bonds in 1946, and both the governments of Canada and Ontario currently offer savings bonds.

**POTENTIAL REVENUE: \$500 million or more (based on approximately \$1 billion value of current Ontario Savings Bond program)**

### Benefits

- Relatively low cost of borrowing
- By reinvesting bond proceeds and dispersing project funds as needed over time, there is potential for government to achieve an overall profit

### Drawbacks

- Possibility of bondholders seeking to redeem their bonds prior to maturity
- Only qualified Ontario residents can purchase a bond issued by the Ontario government
- Potential to divert funds from other government bonds

## Examples of Who’s Using It

**The Government of Ontario:** The Ontario government issues savings bonds and reports that it uses the revenues to fund health care and infrastructure projects. Currently, they issue bonds at 3-year, 7-year, and 10-year terms for amounts ranging from \$100 to \$500,000. In 2009, Ontarians purchased more than \$1 billion in Ontario Savings Bonds during the 2009 campaign. ([Ontario Savings Bonds](#))

**Australia:** The Australian government has unveiled a A\$43-billion plan to build a fibre-to-the-premises (FTTP) broadband network across the country. This national broadband network project will be operated by NBN Co., a company established by the federal government for this purpose. In its 2010 Budget, the federal government announced that it will issue \$300 million in Aussie Infrastructure Bonds over the coming 12 months to help fund its investment in NBN Co. as part of its overall debt issuance program. ([Aussie Infrastructure Bonds](#))

**India:** The Indian government anticipates that the country’s infrastructure needs over the period 2012-2017 to total \$1-trillion. One of the methods being used to finance this massive investment is the issuance of infrastructure bonds. To attract investment, those that purchase infrastructure bonds reap an income tax savings. The finance minister has recently announced that private sector companies undertaking some of these infrastructure projects will also be allowed to issue these tax-savings bonds. ([Indian Infrastructure Bonds](#))

## Employer Payroll Tax

Based on the total of all salaries paid out by employers (often levied directly on employers) and taxed according to place of employment rather than place of residence. As a result, the employer payroll tax can also address the problem of commuters who work in one jurisdiction but live and pay most of their taxes in another.

**Potential Revenue: \$500 Million** (based on payroll deduction of \$250 per full-time employee or 0.35 per cent tax on gross earnings of all workers)

### Benefits

- Helps to address the free rider effect by capturing those who use infrastructure in one jurisdiction (due to employment), but live in another
- Easy to implement

### Drawbacks

- Not tied to infrastructure, so may result in the taxation of people who do not benefit from the infrastructure improvements (e.g., employees who telecommute)
- Commuters outside the municipality imposing the tax have no representation over its implementation
- Can provide an incentive for businesses to relocate outside the zone of taxation

### Examples of Who’s Using It

Oregon State: Administers a payroll tax program for the Tri-Met Transit District in the Portland area and the Lane Transit District in the Eugene area. Tax rates of approximately two-thirds of 1 percent are paid by nearly every employer who pays wages in the two districts. ([Transit-excise](#))

Paris, France: The *versement transport* (a tax on salaries) is levied on employers in the Paris region. The tax is highest in the inner city and lowest in poorer regions. This tax also applies throughout France to varying degrees. ([How-to-fix-transit-financing](#))

## Tax Incremental Financing (TIF)

An economic development incentive package. TIF occurs when local taxing bodies make joint investments in the development or redevelopment of an area with the plan that any immediate profits will be reinvested and leveraged so that all the taxing bodies will receive larger financial gains in the future. When a TIF redevelopment project area is created, a base amount is established for the value of the property. The property taxes paid on this base amount continue to go to the different taxing bodies, with revenue declining only if the base value decreases. TIFs are often used in brownfield development or blighted urban areas, with the property taxes from the resulting urban growth being used to cover development costs.

Potential Revenue: n/a

### Benefits

- New infrastructure is self-financing if TIF is properly designed and implemented
- No burden on capital reserves and public funding sources
- Can be used to stimulate private sector investment
- Allows for the rehabilitation of lands and buildings in designated community-improvement areas

### Drawbacks

- Can lead to diversion of investment that would have gone elsewhere in the municipality
- Can cause gentrification and create upward pressure on house prices
- Fails if sufficient gains in property values near new infrastructure do not occur
- Not a predictable source of revenues — depends on the extent to which this incentive attracts investment

### Examples of Who’s Using It

*GTA:* Two areas have been designated for pilot projects by the provincial government: the areas around the University-Spadina subway line from the City of Toronto into York Region and the West Don Lands brownfield redevelopment initiative (part of the waterfront revitalization). ([Municipal Affairs](#))

*Chicago, IL:* Arlington Heights, a Chicago suburb, rebuilt its downtown around the commuter rail station, using TIF as an infrastructure funding source. The number of residents in Arlington Heights increased and the assessed value of property has shot-up seven-fold. ([TIF in Brief- PDF](#))

*California:* TIFs are a popular financing tool in the United States, with the state of California inventing this scheme in 1952. In 2008, California maintained over 400 TIF districts with an aggregate of over \$10 billion a year in revenue. ([Tax increment financing](#))

## Land Value Enhancement

Designed to capture the increase and associated benefits in land-value created by transportation infrastructure improvement to adjacent property owners within the area. In order for this revenue tool to be implemented, Metrolinx or another body administering this tool would require the legislated authority to do so.

Potential Revenue: \$500 Million or more

### Benefits

- Can discourage land speculation and provide a strong incentive to develop brownfield sites and abandoned property
- Encourages efficient land use and the intensification of existing land uses
- Relatively easy to implement
- Revenue directly tied to benefit from infrastructure built

### Drawbacks

- Designated land needs to be properly zoned for density targets before implementing this tool or else over-taxation will occur
- Tax rate might not reflect the level of services and benefits in a certain location
- Can be difficult to determine the exact land value enhancement certain transportation improvements may create
- Costs imposed on developers are generally passed through to purchasers or tenants, raising housing prices and commercial and retail rents

### Examples of Who’s Using It

Hong Kong: The Mass Transit Railway Corporation (MTR) receives development rights for land above and adjacent to stations. By trading in the purchase price of development rights to land near stations “before expansion” and then trading the rights to developers at “after expansion” prices, the MTR is able to capture the value increase of transit expansion. MTR is completely self-financing through this scheme. ([Hong-Kong](#))

United States: Land value capture in the U.S. is most often employed in the form of benefit assessment districts in metropolitan areas like Miami, Florida; Los Angeles, California; and Denver, Colorado. ([Land Value](#))

Bogota, Colombia: This program was instituted as long ago as 1926 in anticipation of road construction within Bogota. This tool was used to finance the construction of Bogota’s early transportation infrastructure. ([Smith - PDF](#))

Japan: To win matching funds for transit expansion from the central government, local governments must raise at least 35 per cent of construction costs. Land value capture, through a variety of measures, is the most often used means to raise these funds. ([Smith - PDF](#))

## SMALL

### High Occupancy Toll (HOT)

High Occupancy Vehicle (HOV) lanes are separate lanes dedicated for cars travelling with two or more persons. In Ontario, HOV lanes already exist on some 400-series highways. Implementing a High occupancy toll (HOT) allows single-occupancy vehicles to use these HOV lanes by paying a toll. HOT lanes are often operated with transponders, and toll rates are based on traffic volume: the greater the number of vehicles using the lane, the larger the toll.

**Potential Revenue: Under \$500 Million** (based on \$0.10/km toll on Toronto region expressways)

### Benefits

- Allows for optimization of the HOV lane capacity
- Presence of HOV lanes encourages car-pooling
- Potential benefit for all road users - moving more traffic into HOV lanes also creates more capacity in the non-HOV lanes

### Drawbacks

- Negative image of “Lexus lanes” that are geared toward wealthier drivers
- Significant infrastructure needed to implement this revenue tool
- Small amount of revenue generated for the significant infrastructure needed for implementation

### Examples of Who’s Using It

United States: There are at least 6 HOT systems in operation across the U.S. and 15 more are under development. ([Express Lanes](#))

San Diego County: Implemented HOT express lanes on a 13-kilometer stretch of the I-15 freeway. As traffic increases the toll rate increases to encourage the reduction of congestion. Billboards inform motorists of the current toll rate allowing them to decide whether to use the tolled lane. Tolls on the I-15 generate between \$1.3 million and \$2.5 million per year. ([Transportation Funding - PDF](#))

Houston, Texas: Since 1998, under the “QuickRide” program, cars with two passengers have been able to use the 3+-passenger HOV lanes on I-10 for a fee of \$2. Single-occupant vehicles are not permitted to use the HOV lanes. ([QuickRide program](#))

## Vehicle Registration Fee

A fee applied to all vehicles registered within a particular jurisdiction. The application of this fee can vary from a fixed amount per vehicle, a flat rate or an ad valorem approach based on the vehicle. Some jurisdictions link fuel efficiency standards to the vehicle registration fee: those vehicles with greater emissions levels pay a higher fee. This charge can be applied to private vehicles, as well as commercial vehicles. In most instances, revenues from the tax have been used to fund the administration of the vehicle registration system and traffic enforcement. Funding for transit improvements has been employed in a limited number of jurisdictions.

**Potential Revenue: \$300 Million** (based on a registration fee of \$50 for low-emission vehicles and a registration fee of \$150 for high-emission vehicles)

### Benefits

- Allows for dedicated funds for public transit improvements

### Drawbacks

- Does not relate to the intensity of the infrastructure use
- If a flat rate is used, social equity becomes an issue
- City of Toronto already levies this fee, but does not specifically direct funds to transportation infrastructure

### Examples of Who’s Using It

**Metro Vancouver:** TransLink will be levying a “Transportation Improvement Fee” on vehicles as of 2011. Translink is considering several options for how this fee will be applied. These include a flat fee of \$120 per vehicle, a fee of \$65-\$165 depending on fuel efficiency, a flat fee of \$165 per vehicle or a fee between \$100-\$200 depending on fuel efficiency. ([www.translink.ca/en/Get-Involved/Be-Part-of-the-Plan/Previous-Consultations/2010-10-Year-Plan/Funding-Choices/Funding-Options/New-Funding-Source.aspx](http://www.translink.ca/en/Get-Involved/Be-Part-of-the-Plan/Previous-Consultations/2010-10-Year-Plan/Funding-Choices/Funding-Options/New-Funding-Source.aspx))

**Canada:** Montreal, Quebec City, Gatineau, Trois-Rivières, Saguenay, Sherbrooke, and Saint-Jérôme all use a vehicle registration fee. In Montreal and Quebec City, \$30 from the provincially-levied license/vehicle registration revenue collected from the area is devoted to funding transit operations. ([Canada - PDF](#))

**United States:** 33 states and 27 local jurisdictions have enacted a vehicle registration fee. The extent to which these revenues are devoted to public transit vary by jurisdiction.

## Utility Levy

An additional fee added on the utility bill that is dedicated to transportation.

Potential Revenue: Under \$100 Million (based on a levy of \$40 per GTHA household)

### Benefits

- Allows for dedicated funds for public transit improvements

### Drawbacks

- No connection to the infrastructure being funded
- Other levies are already on the utility bill
- Cost of electricity could raise social equity concerns

### Examples of Who’s Using It

Calgary, AB: In order to pay for urban development, including transportation infrastructure upgrades, in the Centre City communities, Calgary levies a Centre City Utility Levy. ([Calgary - PDF](#))

Metro Vancouver: TransLink receives a hydro levy of \$1.90 per month from each BC Hydro account within the service region. The hydro levy generates approximately \$18 million per year in revenue. The levy is collected by BC Hydro on TransLink's behalf. ([New Funding Source - PDF](#))

## Full-Cost Recovery Transit Fares

Full-cost recovery transit fares involve pricing the cost of a transit fare so that a transit system fully finances itself from the fare box. Full-cost recovery can mean that fares cover either just operating expenses or it can mean both operating and capital expenses. For example, full-cost recovery transit fares for operating expenses means that the revenue generated from transit fares covers all of the transit system’s operating expenses (i.e., personnel, fuel, administration) without the need for any additional subsidy. In such an instance, any government funding could be devoted solely to capital expansion.

Potential Revenue: N/A

### Benefits

- Allows for any external funding to be devoted to capital expansion
- Those using the resource would be fully covering the cost of this public resource
- Ensures public understands true cost of providing service

### Drawbacks

- Would require significant increases in GTHA transit fares — increases in transit fares are shown to result in lower ridership levels
- Could discourage people from using transit options due to cost compared to other alternatives
- Social equity concerns — could price transit out of reach of vulnerable populations
- Essentially no North American or European transit systems operate in this manner — TTC and GO Transit recoup the most, at approximately 70 to 80 per cent of operating costs; most North American and European systems recover only about 50 per cent of costs from the fare box

### Who Using It?

**Hong Kong:** The MTR is the backbone of Hong Kong, with 150 stations and 211 kilometres of subway and rail. The MTR benefits from Hong Kong’s population density and its profits from land development. MTR was wholly owned by the Hong Kong government, but was privatized in 2000 and now has the largest shareholder base of any company listed in Hong Kong. ([MTR](#))

**Tokyo, Japan:** The Tokyo subway ranks first in worldwide subway usage, with 14 lines, 282 stations, a system length of almost 330 kilometres and eight to nine million daily passengers. With such volume, the system is able to be fully financed from the fare box, even with relatively affordable fares. ([Tokyo Subway](#))

## COST-SAVING SERVICE DELIVERY METHODS

### Alternative Financing and Procurement (Public-Private Partnerships)

Within the Public-Private Partnership (P3) framework, the government acts as a client awarding a private sector partner a contract to carry out major public construction and maintenance projects. Under P3s, the construction and operation risks are shared between the public and private sector. In many countries, this mode of development has become an accepted method through which the commercial risk of transportation projects can be shared.

P3s have been successfully used around the globe for transportation projects, especially in Europe and Australia. In Canada, the federal, Ontario and British Columbia governments have made strong commitments to building infrastructure, where appropriate, using a P3 or Alternative Financing and Procurement (AFP) model. The creation of PPP Canada, Infrastructure Ontario and Partnerships BC, and the successes experienced by each, reflect the importance each of these governments have placed on using P3/AFP models to build critical public infrastructure.

P3 transit projects have only recently been undertaken in Canada, with the Canada Line in Vancouver being the only one completed so far (the Union-Pearson Air-Rail Link is being built according to a similar model). Opened in time for the 2010 Olympics, the public appears to be very pleased with the Canada Line, and passenger numbers are already exceeding expectations.

Public-private partnerships can occur through asset leasing or with the private financing of new facilities. An asset lease occurs when the public sector leases an asset such as a toll road, a bridge or airport to a private sector body. The private sector body is then responsible for providing the upfront payment or for revenue sharing. Asset leases are known as concession agreements and can last as long as 99 years.

Private financing management can also be used, in addition to asset leases, allowing the private sector to take on other functions including designing, building, financing, operating, and maintaining transportation infrastructure projects.

P3s/AFPs, when structured properly and used for the appropriate projects, have been shown to be effective in getting infrastructure projects built on time and on budget. But P3s/AFPs are not appropriate in all instances. Governments must examine the value-added benefits before pursuing a public-private partnership. This service delivery method is most useful when the government is clear about the purpose of the collaboration with the private sector. Both sides must have clear objectives and the political will must exist on both sides. The project must offer benefits regarding the control of risk and the project design must be clear.

### Benefits

- Public-private partnerships make it easier to access a significant amount of private capital
- On time, on budget project delivery
- Allows for the sharing of project risks and the opportunity for more efficient management

### Drawback

- The possibility of less oversight on projects by the public sector
- Can face public opposition to notion of P3s/AFPs

- Can be difficult to determine the appropriate levels of return on investment for the private sector, which can result in contracts that are over- or under-priced

### Examples of Who’s Using It

**Metro Vancouver:** The Canada Line was built by SNC Lavalin and was governed through Canada Line Rapid Transit Inc. SNC Lavalin will be responsible for the operation of the line for 35 years. The Canada Line is operationally independent from the SkyTrain’s current lines, but is still a part of the SkyTrain Network.

**Oakland, CA:** A project for the Bay Area Rapid Transit (BART) system to provide a connection to the Oakland International Airport is being built because 50 per cent of the project’s capital costs have been provided through upfront private capital. It is unclear if this project would have ever been built without the private capital.

**Portland, OR:** An extension of Portland’s MAX light-rail system to provide an airport link was able to begin over 3 years earlier than projected as a result of receiving upfront private capital. As a result of the P3, the project was completed within budget (with an estimated building materials cost savings of \$10 to \$15 million), with construction ending 9 weeks earlier than expected.

**Chicago, IL:** The City received \$1.8 billion from the successful private sector bidder for a 99-year lease of the Chicago Skyway Toll Bridge. These revenues have been used for refinancing city debt, schools, and the creation of a \$500-million “rainy day fund.” ([Transportation Funding - PDF](#))

**Indiana State:** The State received \$3.8 billion for a 75-year lease of the Indiana Toll Road. These revenues were used to fund the state’s 10-year highway construction plan and a certain portion of the revenues were set aside for transportation projects in the localities through which the toll road passes. ([Transportation Funding - PDF](#))

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