An Independent Study Commissioned by

RESIDENTIAL AND
CIVIL
CONSTRUCTION
ALLIANCE OF
ONTARIO

RCCAO

Constructing Ontario's Future

A Case for **Increasing Provincial Fuel Taxes** (on a Temporary Basis)

RESIDENTIAL AND
CIVIL
CONSTRUCTION
ALLIANCE OF
ONTARIO

Constructing Ontario's Future

RCCAO
25 North Rivermede Road, Unit 13, Vaughan, Ontario L4K 5V4
Andy Manahan, executive director
e manahan@rccao.com p 905-760-7777 w rccao.com

The Residential and Civil Construction Alliance of Ontario (RCCAO) is composed of management and labour groups that represent a wide spectrum of the Ontario construction industry. The RCCAO's goal is to work in co-operation with governments and related stakeholders to offer realistic solutions to a variety of challenges facing the construction industry and which also have wider societal benefits.

RCCAO has independently commissioned more than 30 reports on planning, procuring, financing, and building infrastructure, and we have submitted position papers to politicians and staff to help influence government decisions.

For more information on the RCCAO or to view copies of other studies and submissions, please visit **rccao.com**

RCCAO members include:

- Carpenters' Union
- Greater Toronto Sewer and Watermain Contractors Association
- Heavy Construction Association of Toronto
- International Union of Operating Engineers, Local 793
- International Union of Painters and Allied Trades, District Council 46
- Joint Residential Construction Association
- LIUNA Local 183
- Ontario Formwork Association
- Residential Carpentry Contractors Association
- Toronto and Area Road Builders Association

A Case for **Increasing Provincial Fuel Taxes** (on a Temporary Basis)

An independent research study prepared for the Residential and Civil Construction Alliance of Ontario (RCCAO)

By
Harry Kitchen, Professor Emeritus
Department of Economics, Trent University
9 Boothia Place, Peterborough, ON K9H 6Y3
e: hkitchen@trentu.ca
p: 705-745-7203

July 2015

TABLE OF CONTENTS

EXECUTIVE SUMMARY

Fiscal reality check:

Ontario's provincial government will not be able to balance its 2017-18 budget, as it has targeted, without raising taxes. Many analysts, including former top civil servant Tony Dean[1], and even the provincial government[2] have suggested that increased taxes will be needed if the current deficit of $10.9 billion is to be eliminated and the province is to achieve a balanced budget within three years.

Anticipating a tax increase, you might ask – "Which tax or taxes?" There is no clear answer, but there is likely to be more support for taxes linked to the user of a service (known as a "benefits-based tax"). Administratively, the easiest taxes to raise should be the provincial gasoline tax and diesel fuel tax. Although there may be some controversy surrounding an increase in pump prices, this can be mitigated through a careful explanation and promotion of the overall benefits of such an increase.

These two tax increases could generate additional provincial revenues of between $1.7 billion and $2.4 billion per year — around $14 billion over the next seven years

Major Recommendations:

- The provincial gasoline tax should be raised from 14.7 cents to 23 cents per litre (8.3-cent hike) in 2015 and indexed by the rate of inflation each year for the next five to seven years.

- The provincial diesel fuel tax should be raised from 14.3 cents to 22 cents per litre (7.7 cents) in 2015 and indexed each year by the rate of inflation for the next five to seven years.

- These increased revenues should be dedicated to transportation improvements across Ontario.

- Due to factors such as an increase in non-fuel vehicles, reliance on these additional fuel tax revenues would be temporary, for only five to seven years.

- These two tax increases could generate additional provincial revenues of between $1.7 billion and $2.4 billion per year – around $14 billion over the next seven years.

- Within the major metropolitan areas and heavily populated regions, the provincial government should plan for the introduction of some form of road pricing while municipalities should rethink its structure of parking levies. Compared to fuel taxes or other revenue sources, road and parking pricing would more effectively manage congestion, improve productivity, and generate funds for urban roads and public transit.

- As road pricing and parking taxes are introduced, fuel taxes could be reduced and replaced by an effective and efficient form of a carbon tax like the one used in British Columbia.

CURRENT PROVINCIAL FUEL TAXES

The provincial government currently levies an excise tax of:

- 14.7 cents per litre on gasoline; and
- 14.3 cents per litre on diesel fuel.[3]

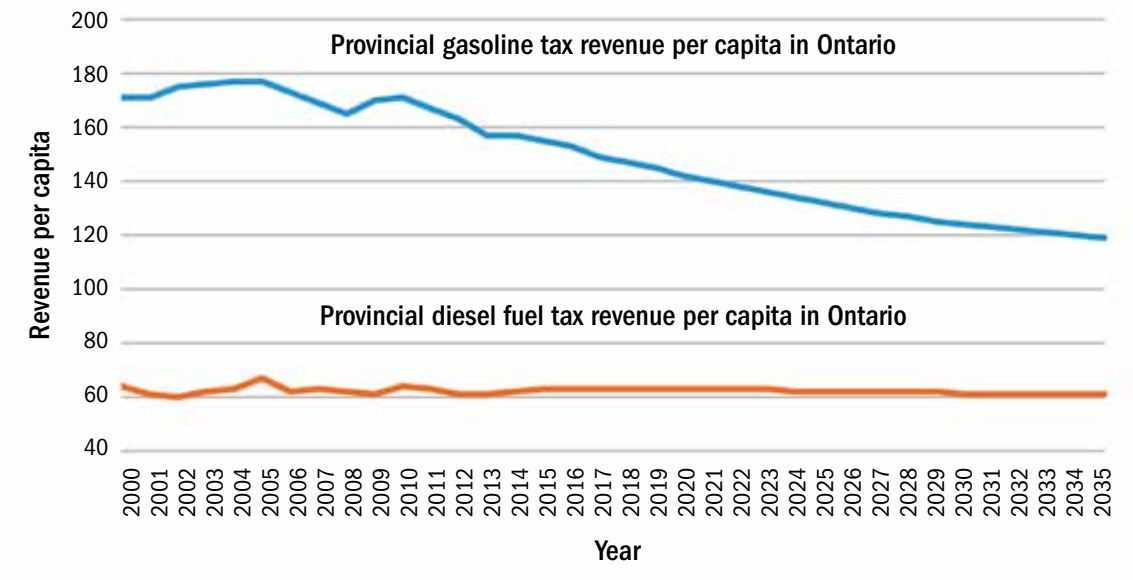
Both rates were set in 1992 and have not increased since then. Figure 1 illustrates provincial revenue generated from the gasoline and diesel fuel taxes in Ontario from 2000 to 2014. It also shows projections for revenue from 2015 to 2035 assuming that there is no increase in the tax rates. From 2000 to 2006, gasoline tax revenue was around $175 per capita; by the 2030s, it is projected to drop to below $125 per capita. Diesel fuel tax revenue per capita in Ontario is expected to have only a modest decline over the same period, falling from the mid-$60 range in the early 2000s to the low-$60 range in the early 2030s.

WHY IS REVENUE DROPPING?

There are many factors for declining fuel tax revenues:

- More fuel-efficient and hybrid vehicles on the road.
- Increasing reliance on non-fuel vehicles such as electric.
- Younger adults (especially those living in highly urbanized areas like the GTHA) are driving less.
- Retiring baby boomers who are driving less than when they were younger.

Figure 1: Estimated Gasoline and Diesel Fuel Tax Revenue Per Capita in Ontario at Current Fuel Tax Rates, 2000 to 2035



Source: Data obtained from Table 1, columns 9 and 11 in Harry Kitchen (2014), "Taxing Motor Gas and Diesel Fuel in the GTHA: Will This Generate Sufficient Revenue?" available at rccao.com

SHOULD PROVINCIAL FUEL TAXES BE RAISED AFTER 23 YEARS?

There are several compelling reasons for increasing provincial fuel taxes, at least for the next five to seven years. This would generate revenue for transportation infrastructure improvements and expansion. These tax rates were set 23 years ago: that's an unusually long time for holding a tax constant given that inflation has increased by more than 50% over that time. In real terms, the province is collecting far less today than it did in the 1990s – certainly not enough to cover expanded or improved transportation services. Increasing the taxes now, when the price at the pump is lower than it has been for some time, would not push the price above levels that consumers and businesses faced in the recent past (see Figure 2).

Furthermore, these tax increases could be viewed as a form of a carbon tax (one that is, by the way, growing in popularity in a number of countries) and as such, it would be similar to the 6.67 cents per litre carbon tax on motor fuel and 7.67 cents per litre carbon tax on diesel fuel in British Columbia.

In essence, a tax hike on gasoline and diesel fuel would have a number of economic and environmental advantages for Ontario:[4]

- It impacts total distance driven. This would reduce unnecessary driving which is a contributor to congestion and engine idling. Both have environmental costs.
- It provides an incentive for switching to more fuel-efficient cars and public transit.
- It is a useful tool for curbing the costs of greenhouse gas emissions because emissions decrease as the amount of fuel burned decreases.
- It assists in reducing urban sprawl – a recent Canadian study found that a 1% increase at the pump in the 12 largest Canadian metropolitan areas between 1986 and 2006 caused a 0.32% increase in population living in inner cities and a 1.28% reduction in low-density housing units.[5]

Finally, if we turn to recent U.S. initiatives, seven states have increased or announced increases in their state fuel tax rates. Among them, Iowa has increased its gas tax by 10 cents per gallon US (3.79 cents US per litre); South Dakota has hiked its gas tax by six cents per gallon; meanwhile, Utah will increase its rate by five cents per gallon, starting in 2016. Other states are considering similar moves as a means of generating more revenue for roads and public transit.

Figure 2: Ontario Regular Gas Prices, July 2011-July 2015

Source: http://www.ontariogasprices.com/retail_price_chart.aspx

SHOULD FUEL-TAX REVENUES BE EARMARKED?

Yes. There are four main arguments in support of earmarking:

- First, this is consistent with the benefits-based principle of financing government services – those who use a service pay for it.
- Second, earmarking facilitates long-term planning after establishing a dependable revenue stream.
- Third, it can prevent the political abuse of funds – there is more accountability and transparency when there is a link between the revenues from a tax and the service funded by the tax.
- Fourth and most importantly, it boosts public support because people know where their taxes are being spent.

ESTIMATED REVENUE[6]

If both taxes were increased in 2015 by an amount that reflects the inflationary increase from 1992 to 2014 (that is, to 23 cents per litre for gasoline and to 22 cents per litre for diesel fuel) and then increased annually by an assumed rate of inflation of 2.5% per year until 2022, it is estimated that both taxes combined could generate additional provincial revenues of:

- $1.7 billion in 2016;
- $1.8 billion in 2017;
- $1.9 billion in 2018;
- $2.0 billion in 2019;
- $2.1 billion in 2020;
- $2.2 billion in 2021; and
- $2.4 billion in 2022.

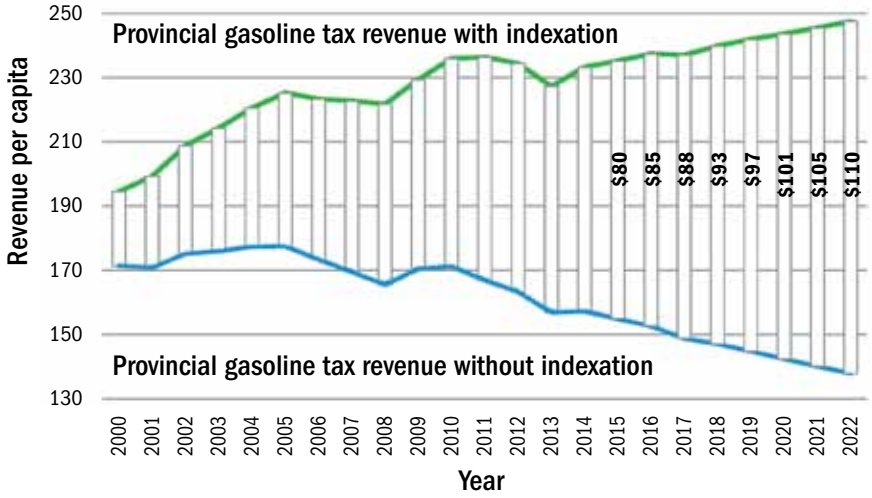
HOW THE ESTIMATES WERE MADE

From the statistics on the impact that fuel taxes have on the volume of gasoline and diesel fuel purchased, there is uniform evidence that higher prices lead to lower levels of consumption. What is not as uniform, however, is the actual impact of these higher prices on reduced consumption. To calculate this impact, this report uses the estimates of price elasticity of demand that have been drawn from a number of U.S. and Canadian studies.[7] Reliable and credible long-term estimates range from -0.67 to -1.23. A coefficient of -0.67 means that a 10% increase in price will lead to a reduction in quantity demanded of 6.7%. A coefficient of -1.23 means that a 10% increase in price will lead to a reduction in quantity demanded of 12.3%.

The most logical scenario would have been and still is to raise the taxes annually by the rate of inflation (again, it has been 23 years without increases). Figure 3 illustrates this impact. It shows actual and estimated revenue per capita from the provincial gasoline tax of 14.7 cents per litre from 2000 to 2022 (lower line on the graph), and per capita revenue that could have been generated if the gasoline tax had increased each year from 1992 by the rate of inflation (upper line) as measured by the Consumer Price Index.[8] The potential additional tax revenue in Ontario from indexing the tax is estimated to be:

- 2015: $80 per capita;
- 2016: $85 per capita;
- 2017: $88 per capita;
- 2018: $93 per capita;
- 2019: $97 per capita;
- 2020: $101 per capita;
- 2021: $105 per capita;
- 2022: $110 per capita.

Figure 3: Estimated Gasoline Tax Revenue Per Capita in Ontario at the Current Fuel Tax Rate and at an Indexed Rate, 2000 to 2022

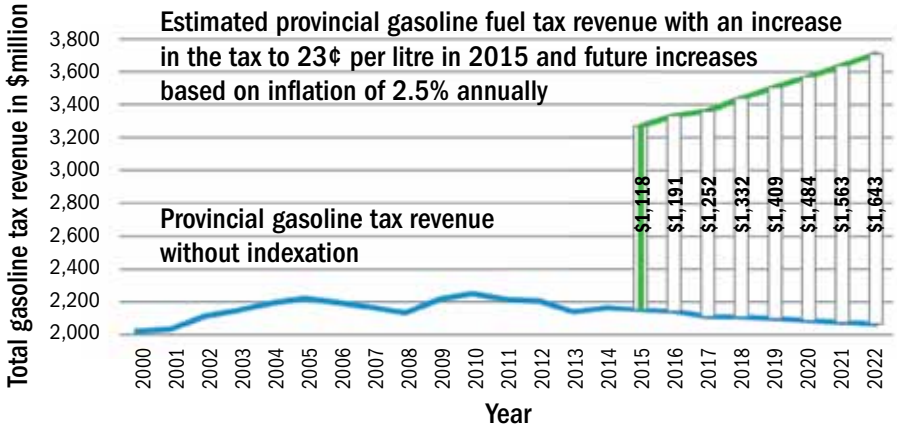


Note: The lower line is based on data in column 2 of Appendix Table 1 divided by Ontario's actual and estimated population; the upper line is based on data in column 5 of Appendix Table 1 divided by Ontario's actual and estimated population.

Another way of looking at this scenerio of increasing the gasoline tax is provided in Figure 4. It shows the total potential provincial tax revenue from 2015 to 2022. In particular, the potential additional funds from raising the tax to 23 cents per litre is estimated to be:

- 2015: $1.1 billion;
- 2016: $1.2 billion;
- 2017/2018: $1.3 billion each year;
- 2019: $1.4 billion;
- 2020: $1.5 billion;
- 2021/2022: $1.6 billion each year.

Figure 4: Estimated Provincial Gasoline Tax Revenue (in millions of $) at the Current Fuel Tax Rate and at an Indexed Rate, 2015 to 2022

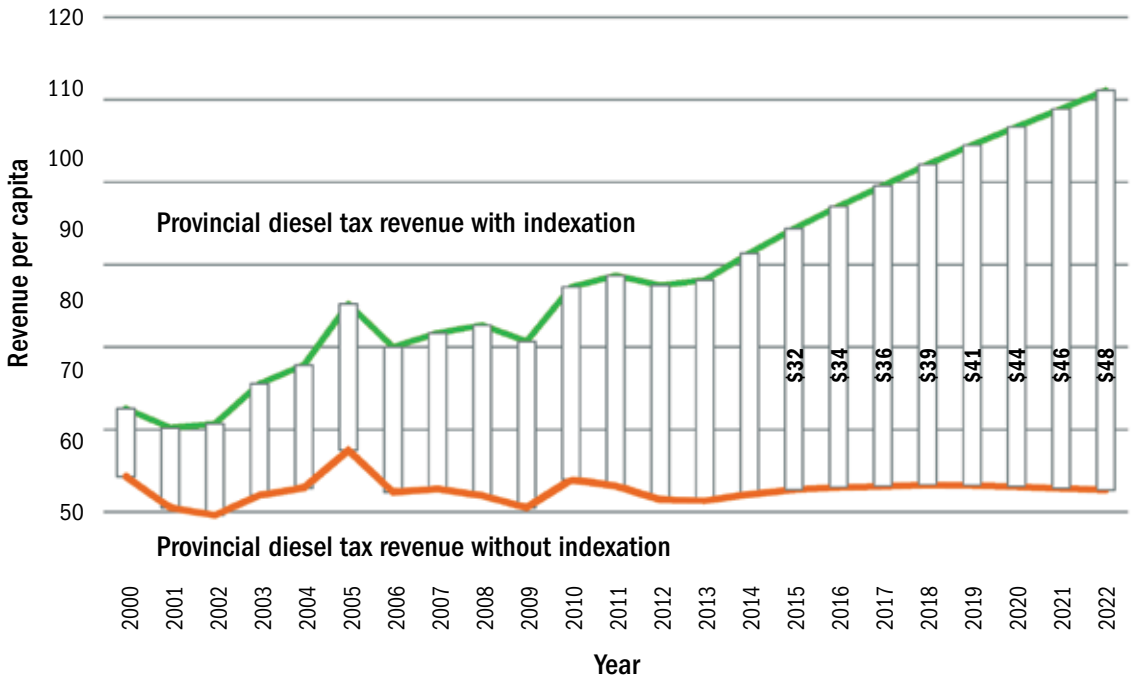


Note: The lower line is based on the data in column 2 of Appendix Table 1; the upper line is based on the data in column 5 of Appendix Table 1 for the years from 2015 to 2022.

Figures 5 and 6 provide a similar illustration for the provincial tax on diesel fuel. In Figure 5, it is noted that the potential revenue from raising the tax to 22 cents per litre in 2015 and indexing it in future years is estimated to be:

- 2015: $32 per capita;
- 2016: $34 per capita;
- 2017: $36 per capita;
- 2018: $39 per capita;
- 2019: $41 per capita;
- 2020: $44 per capita;
- 2021: $46 per capita;
- 2022: $48 per capita.

Figure 5: Estimated Diesel Fuel Tax Revenue Per Capita in Ontario at the Current Tax Rate and at an Indexed Rate, 2000 to 2022

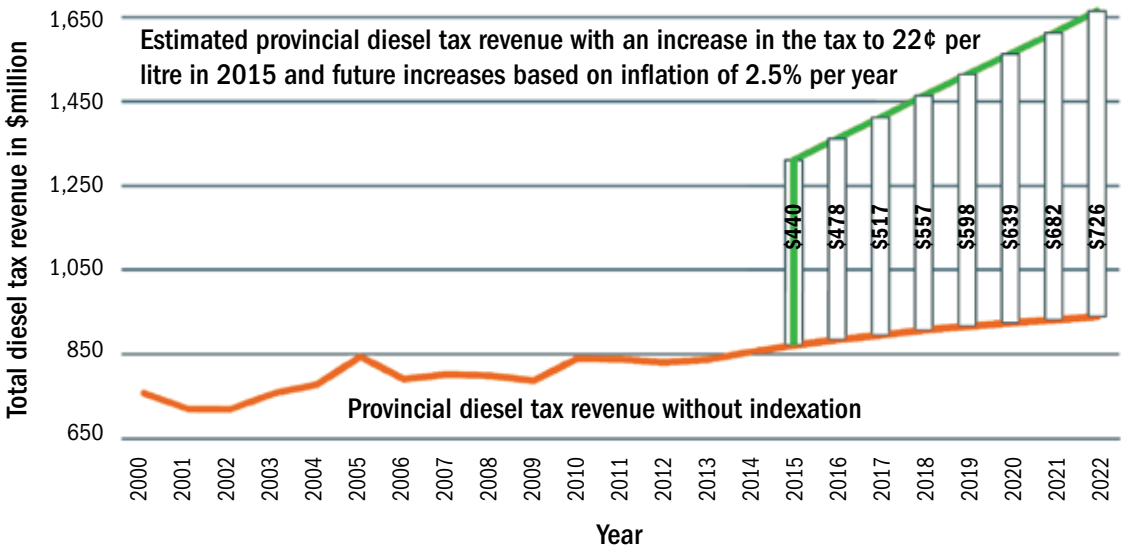


Note: The lower line is based on the data in column 6 of Appendix Table 1 divided by Ontario's actual and estimated population; the upper line is based on the data in column 9 of Appendix Table 1 divided by Ontario's actual and estimated population.

Figure 6 provides another way of viewing the additional potential revenue for the diesel tax. It shows the total projected revenue from 2015 to 2022 from raising the tax to 22 cents per litre in 2015 and indexing it in future years by 2.5% annually. The potential revenue from raising the tax is estimated to be:

- 2015: $440 million;
- 2016: $478 million;
- 2017: $517 million;
- 2018: $557 million;
- 2019: $598 million;
- 2020: $639 million;
- 2021: $682 million;
- 2022: $726 million.

Figure 6: Estimated Provincial Diesel Fuel Tax Revenue (in millions of $) at the Current Tax Rate and at an Indexed Rate, 2015 to 2022



Note: The lower line is based on the data in column 6 of Appendix Table 1; the upper line is based on the data in column 9 of Appendix Table 1 for the years from 2015 to 2022.

IS RAISING FUEL TAXES A LONG-TERM SOLUTION?

No. A major advantage of increasing provincial fuel taxes for the next five to seven years is that this change will generate much needed revenue. Beyond that time frame, however, tax revenue potential will fall as will the taxes' ability to impact road usage. As vehicles become more fuel-efficient, fuel tax revenues will drop. Other factors that will cause a reduction in fuel-tax revenues in the not-too-distant future include an increased reliance on electric and hybrid vehicles; the growth of younger adults living in highly urbanized areas who drive less; and an increase in the number of retiring Baby Boomers who will drive less than when they were younger. Of major importance here is the increase in more fuel-efficient, electricity-driven and hybrid vehicles that will lead to less revenue being generated without necessarily leading to a reduction in congestion – drivers of non-fuel cars will not have an incentive to economize on road usage because they will be getting a free ride compared to those with combustion engines.

IN THE LONG TERM ...

What will be needed, noted by a growing number of analysts, is some form of road pricing and parking charges that apply to all vehicles.[9] Because of the length of time it will take to introduce and implement these new revenue tools, however, it makes sense to hike the provincial fuel taxes to partially fill this revenue gap in the interim.

Appendix Table 1: Additional revenue from increasing provincial taxes on gasoline and diesel fuel by the rate of inflation since the gasoline and diesel fuel taxes were last raised in 1992 (in $ millions).

Year	Gasoline tax revenue				Diesel fuel tax revenue			
	At 14.7 cents per litre	By the rate of inflation[1,3]			At 14.3 cents per litre	By the rate of inflation[2,3]		
		elast. = -.67	elast. = -1.23	Average[4]		elast. = -.67	elast. = -1.23	Average[4]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2000	2,019.3	279.2	264.7	272.0	757.2	99.7	94.5	97.1
2001	2,032.4	347.9	329.9	338.9	719.8	118.5	112.3	115.4
2002	2,110.5	416.9	395.3	406.1	718.3	137.2	130.1	133.6
2003	2,147.1	480.7	455.7	468.2	756.9	169.4	160.7	165.0
2004	2,191.8	548.4	520.0	534.2	777.2	189.4	179.5	184.4
2005	2,220.2	614.0	582.2	598.1	844.3	227.9	216.1	222.0
2006	2,195.5	650.5	616.8	633.7	790.2	228.9	217.1	223.0
2007	2,165.5	698.7	662.5	680.6	802.1	248.2	235.3	241.8
2008	2,132.7	744.3	705.7	725.0	798.7	276.5	259.3	266.4
2009	2,214.9	787.5	746.7	767.1	786.5	269.3	255.3	262.3
2010	2,249.0	873.7	828.4	851.0	839.5	315.1	298.7	306.9
2011	2,213.2	947.2	898.1	922.7	837.6	347.5	329.4	338.5
2012	2,204.6	987.1	935.9	961.5	830.2	360.8	342.1	351.4
2013	2,138.8	985.8	934.7	960.3	836.5	374.5	355.1	364.8
2014	2,163.5	1,074.7	1,019.0	1,046.8	855.0	413.2	391.7	402.5
2015	2,151.2	1,147.4	1,087.9	1,117.6	871.0	451.7	428.3	440.0
2016	2,141.7	1,222.7	1,159.3	1,191.0	884.0	490.9	465.4	478.2
2017	2,109.7	1,285.6	1,218.9	1,252.3	895.0	530.8	503.3	517.1
2018	2,107.2	1,367.2	1,296.3	1,331.8	907.0	275.1	542.5	557.3
2019	2,098.2	1,446.1	1,371.1	1,408.6	916.0	614.3	582.4	598.4
2020	2,085.8	1,524.0	1,445.0	1,484.5	924.0	656.5	622.5	639.5
2021	2,075.1	1,604.3	1,521.1	1,562.7	931.0	700.5	664.1	682.5
2022	2,066.1	1,687.2	1,599.8	1,643.5	939.0	745.8	707.1	726.5

1 If the 14.7 cent per litre provincial gasoline tax had increased by the increase in the CPI from 1992 to 2014, the provincial tax rate would have been 22.2 cents per litre by 2014.

2 If the 14.3 cent per litre provincial diesel fuel tax had increased by the increase in the CPI from 1992 to 2014, the provincial tax rate would have been 21.6 cents per litre by 2014.

3 To estimate the additional revenue for 2015 to 2022, an inflationary increase of 2.5% per year was used.

4 Average of previous two columns.

Source: The estimating methodology used in this table and the data for it come from Harry Kitchen (2014), "Taxing Motor Gas and Diesel Fuel in the GTHA: Will This Generate Sufficient Revenue?"

ENDNOTES

1 Tony Dean (2015, May 1), QPBRIEFING: "Liberals gladly take criticism for not raising taxes," at http://rccao.com/news/files/May-01-2015-QPBriefing.pdf

2 Jean Taber (2015, June 17), "Former banker [Ed Clark] becomes Wynne's business adviser," *Globe and Mail*, A3.

3 This brief is not considering the federal gas tax.

4 Other reasons for raising the fuel tax may be found at http://rccao.com/news/files/Jan-05-2015-citylab.pdf

5 Georges A. Tanguay and Ian Gingras (2011), "Gas prices variations and urban sprawl: An empirical analysis of the 12 largest Canadian metropolitan areas", April 29, CIRANO - Scientific Publication No. 2011s-3 (http://ssrn.com/abstract=1919003)

6 For an analysis of these revenue tools for financing roads and transit, see the following two reports published by the RCCAO: Harry Kitchen (2014), "Taxing Gasoline and Diesel Fuel in the GTHA. Will This Generate Sufficient Revenue?"; and Harry Kitchen and Robin Lindsey (2013), "Financing Roads and Public Transit in the Greater Toronto and Hamilton Area," available at rccao.com.

7 Summarized in the reports cited in footnote 6.

8 The estimate of additional revenue is an average of the estimate with an elasticity coefficient of -0.67 (columns 3 and 7 of Appendix Table 1) and the estimate with an elasticity coefficient of -1.23 (columns 4 and 8 of Appendix Table 1). As well, the estimates for 2015-2022 assume an inflationary increase of 2.5% per year.

9 The methodology for deriving these estimates was taken from the study by Kitchen, 2014, cited in footnote 6.

Design by Actual Media
actualmedia.ca

View this report and more at

rccao.com