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FRASER INSTITUTE

THE Quarterly

Fall 2015

Forcing Canadians to contribute more to CPP will reduce voluntary savings

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FRASER INSTITUTE

MESSAGE FROM THE INSTITUTE'S PRESIDENT

Niels Veldhuis
President, Fraser Institute

Dear Fraser Institute Friends and Supporters,

This issue of *The Quarterly* highlights a host of issues the Institute has covered: Alberta's Royalty Review, Ontario's creation of a provincial pension plan, economic freedom and happiness, Canada's pipeline debate, and the so-called global warming "consensus."

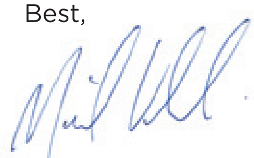
Please take a look at page 14 where you will find a screen shot of our newly revamped website, www.fraserinstitute.org. We are extremely excited about the look and functionality of the new site—I must say, it looks even better live. The site utilizes responsive web design making it accessible across a wide range of devices from desktop computers to tablets to mobile phones. The site is also more visual, making use of the Institute's cutting-edge infographics and videos. Please have a look at www.fraserinstitute.org.

Included in the revamped website, is our new Fraser Institute blog, which you can directly access at www.fraserforum.org. With more and more Canadians bypassing traditional media outlets and getting their information directly from the source, the blog will be an important outlet for commentary covering the most pressing and topical policy issues in the country. Please see the back cover of this *Quarterly* for a promo of our blog. I encourage you to visit the blog on a daily basis to get Institute researchers' perspectives on issues of the day.

This issue of *The Quarterly* also includes an important column by Charles Lammam, director of fiscal studies, and policy analyst Hugh MacIntyre published in the *Vancouver Sun* (see page 24). The column is a response to *Vancouver Sun* columnist Pete McMartin's front-page column in which he promulgates the leftist argument that young Canadians' success is predetermined by their parent's social class. McMartin's opinion is not based on actual evidence and is completely wrong. I hope you agree that Charles and Hugh did a nice job of providing the actual facts.

As always, thank you for your ongoing support. When you've finished reading this issue of *The Quarterly*, please remember to share it with your friends and family.

Best,



Niels

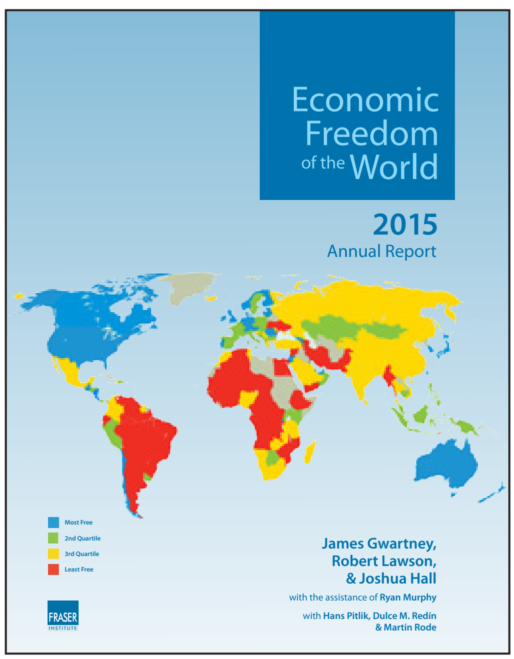
THE Quarterly

RETURN UNDELIVERABLE CANADIAN ADDRESSES TO:
The Fraser Institute, 4th Floor, 1770 Burrard Street, Vancouver, British Columbia Canada V6J 3G7

People Living in Countries with High Levels of Economic Freedom **Are Happier and Have Greater Life Satisfaction**

Fred McMahon

The world is awash in indicators of well-being, over 100 gauging wellbeing or at least some aspect of it. (See for example, Yang.[1]).



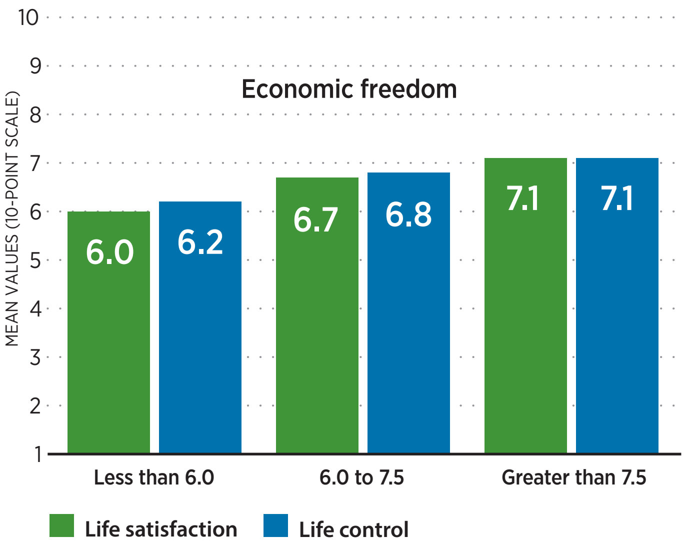
Economic freedom, as measured by the Fraser Institute's *Economic Freedom of the World: Annual Report* has a strong claim to be at or near the top of the list of indexes that measure not just wellbeing but also what contributes to it.

Economic freedom, like freedom in general, is both intrinsically valuable and contributes to other things which are thought to add to well-being. Over 500 peer-reviewed and policy articles have used the economic freedom index to measure outcomes and found economic freedom promotes prosperity, poverty reduction, civil freedoms, democracy, lowering of ethnic tension, and employment growth, among many other favorable outcomes.

But, does economic freedom cause happiness or, as many charge, does the supposed "dog-eat-dog" world of free markets suppress happiness by causing anxiety and fear for mere material gain?

1. Yang, Lin. 2014. An Inventory of Composite Measures of Human Progress. Occasional paper. UNDP Human Development Report Office.

FIGURE 1: LIFE CONTROL, LIFE SATISFACTION, AND ECONOMIC FREEDOM



Economic freedom is measured from 0-10, with zero being the lowest level of economic freedom. This graph splits nations into three groups and demonstrates that both life control and happiness are higher in nations with greater levels of economic freedom.

A series of empirical studies have addressed that question and now pretty much settled it. One of the most recent entries in the literature is "Economic Freedom, Individual Perceptions of Life Control, and Life Satisfaction", by Hans Pitlik, Austrian Institute of Economic Research and Vienna University, Dulce M. Redín, University of Navarra, Spain, and Martin Rode, University of Navarra.

Many of the factors that economic freedom promotes, such as prosperity, have been found to cause happiness, But the Pitlik, Redin, and Rode study (following up on a number of academic studies on happiness by these authors) found that economic freedom, even independently of things like prosperity, promotes increased happiness or life satisfaction, terms often used interchangeably in the research.

In other words, for example, for two nations having the same level of prosperity, people in the one that is economically freer are likely to have the higher level of happiness. Similarly, the study shows that economic freedom plays a greater role in happiness than income, age, employment and political system.

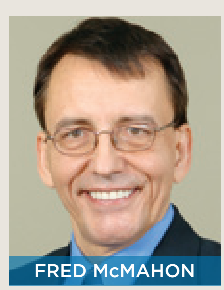
Economic freedom is simply the ability of individuals to control their own economic destiny. The economic freedom index is based on 42 distinct variables to rate nations around the world on their level of economic freedom.

The cornerstones of economic freedom are personal choice, voluntary exchange, freedom to compete and security of property. It is based on five areas: 1) Size of government, 2) legal system and the protection of private property, 3) sound money, 4) freedom to trade, and 5) business, labor and credit regulation.

While some have argued for a nanny state to look after all our needs in whichever way the state sees fits, as it turns out people actually do value their freedom and ability to make their own choices.

Economic freedom directly increases happiness and indirectly increases happiness through "life control", another contributor to happiness. Life control simply means whether people feel able to determine their own fate, and it is easy to see how economic freedom would add to this and to understand how being able to make your own economic choices would also directly add to happiness.

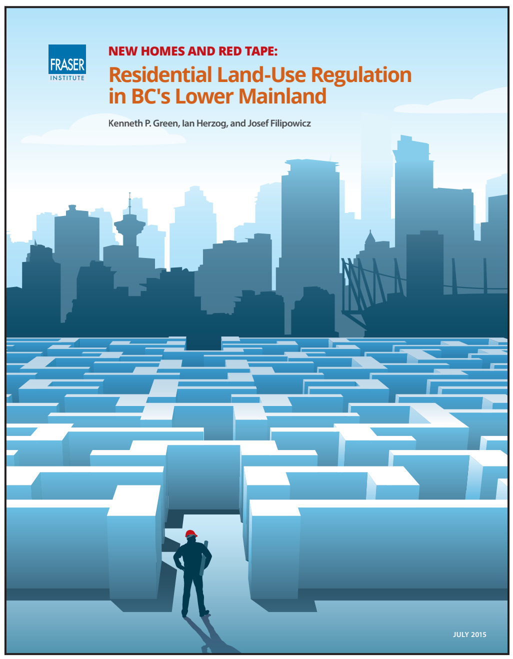
The study employs data from the World Values Survey, the European Values Survey, the Fraser Institute's *Economic Freedom of the World Report*, and a number of other data sources for factors such as income, political system, population age profiles, and political system. FI



Fred McMahon is the Fraser Institute's Dr. Michael A. Walker Research Chair in Economic Freedom.

As Lower Mainland Housing Prices Rise, **Is City Hall the Elephant in the Room?**

Ken Green, Ian Herzog, and Josef Filipowicz



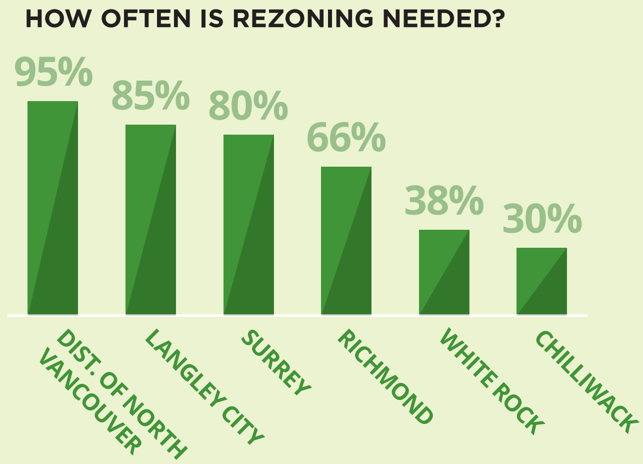
As rising housing costs in Metro Vancouver continue to make headlines, municipal policymakers, including Vancouver's mayor, point to a number of potential causes, including absentee owners and home-flippers—people who buy and promptly resell property for short-term returns. In a letter to British Columbia's premier, the mayor has called on the provincial and federal governments to help fund housing investments, and allow municipalities to track property ownership and vacancy more closely.

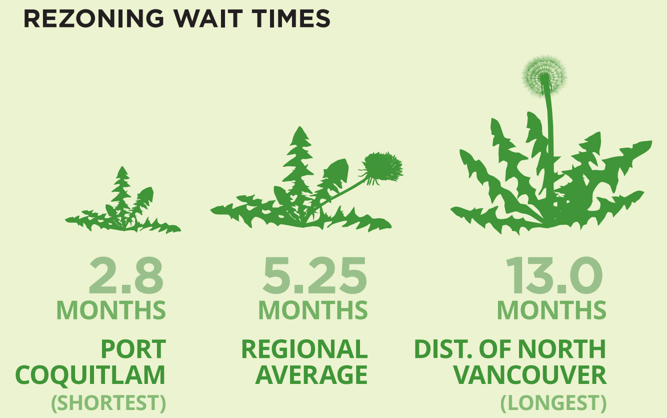
It is difficult to say if any of these proposed policies can control housing costs, which rely on multiple factors. However, Metro Vancouver faces unavoidable physical limits to growth and the regulatory burden cities place on new housing development can exacerbate the problem.

City planners play a critical role in our growing urban landscape, preventing nuisance and ensuring that growth is supported by appropriate infrastructure. But a recent study by the Fraser Institute finds stark differences in the hurdles developers across the Lower Mainland must overcome to build new homes. Before turning to potentially costly interventions into local housing markets, municipal policymakers should look in their own back yards for simpler solutions to rising costs.

If it takes too long to get city hall's approval for housing developments, the supply of new homes will lag behind demand. This can make new housing scarce, and drive up prices across the region by creating a perpetual seller's market. The study estimates that typical approval times range from five months in Pitt Meadows and 8.5 months in New Westminster to 16.1 months in the District of North Vancouver and 17.7 months in West Vancouver.

Moreover, prohibitive compliance costs, such as development charges and legal fees, are another factor that can make the economics of more affordable housing options turn sour, adding at least $14,357 per new home built in Abbotsford and a maximum of $40,000 per home in the District of North Vancouver.



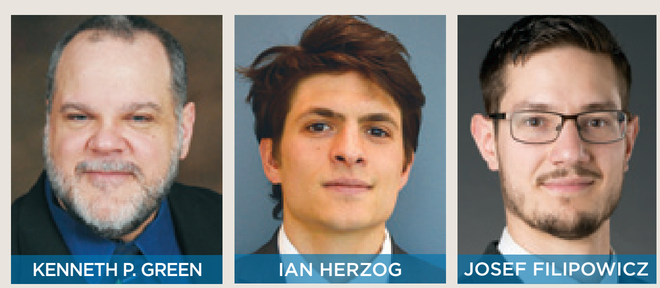


Responsibly set fees, reflecting new infrastructure costs, can lift the fiscal burden of new development from the existing property tax base, making it easier to accommodate—especially at the urban fringe where new roads and sewers are often necessary. Subsequently, one would expect cities with the densest growth to feature the lowest fees. However, a closer look at fees and compliance costs across Canada finds no evidence of this trend. Instead, the data suggest that intensifying cities—those building up instead of out—often have regulatory frameworks that are more costly to navigate. Burnaby is a rare exception, growing compactly while maintaining low compliance costs relative to neighbouring Vancouver.

Persistent rezoning in a city raises questions about the plans and bylaws it has in place, and can add to administrative burdens. Survey evidence suggests that zoning bylaws need to be amended to accommodate more than 80 percent of new residential development in eight of 19 Lower Mainland cities. Estimates of the effect of rezoning on approval times range from 2.8 additional months in Port Coquitlam to 13 additional months in the District of North Vancouver.

Council and community groups are often a force for good, but they can undervalue the needs of newcomers as Canadians continue to converge on urban centres. A survey of industry professionals revealed that opposition to residential development from council and community groups tends to be strongest in cities where dwelling values are highest (the North Shore and Vancouver) and less of a deterrent to building in places like Surrey, where people have amassed less equity in their homes. While one should be careful attributing a specific causal story to this correlation, it is unsettling to find that voices against new housing are amplified where it is most valuable.

Cities such as Vancouver and the District of North Vancouver, where survey evidence suggests red tape is the thickest, can turn to their neighbours in Abbotsford and Burnaby for examples of effective land-use regulations, which impose less of a burden on building. Smoothing out the kinks in the process that gets new homes built can pay dividends to anyone looking for a new home in the Lower Mainland. FI



Kenneth P. Green is senior director, Natural Resource Studies at the Fraser Institute. Ian Herzog is an Economist and Josef Filipowicz is a researcher also at the Fraser Institute.

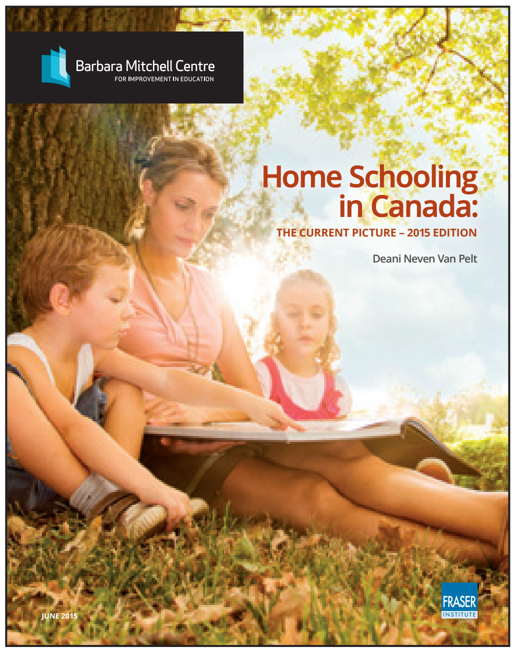
Barbara Mitchell Centre
FOR IMPROVEMENT IN EDUCATION

Home Schooling on the Rise in Canada

Deani Van Pelt

As students across Canada look forward to a new school year, we know that some students won't be back in class this the fall. They may be barred from schools because of striking teachers. Or they may be home—in school.

With an average growth rate of more than 5 per-cent per year, home schooling in Canada is on the rise. For example, from 2006 to 2012, home schooling grew by 29 percent while government school enrolment fell by 2.5 percent. In a recent Fraser Institute study, *Home Schooling in Canada: The Current Picture*, we found that during that same six-year period, nine of 10 provinces showed increases in official home-school enrolments. And even in British Columbia, which showed declines, distributed learning enrolments—a substitute for home schooling in some households—grew by an average of 14 percent annually.



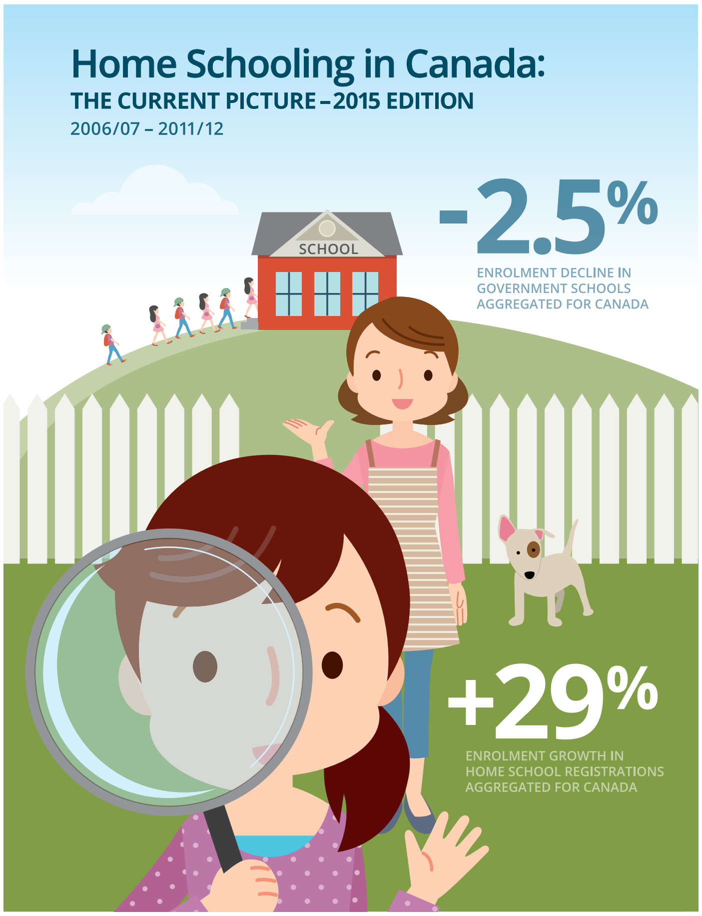
It's worth asking, first of all, why families are increasingly choosing this option. A few decades ago, the main drivers were ideology and religion—meaning that families wanted their education to better reflect their beliefs. Not so much anymore. A recent review of the research found that families are choosing home schooling for practical reasons. It just fits the way some families live and raise their children nowadays.

For example, some have more intensive extra-curricular involvement in athletics or music. Some travel frequently or live remotely. Others have more home-based lives, with more living and working in the home. Still others want the unique learning and behavioural needs of their child met in more attentive ways.

And not only is home-schooling practical for some Canadians; more than ever, it's now possible. According to the research, thanks to technology and the maturation of home schooling as a legitimate educational alternative, home schooling resources, curriculum, support groups, and learning co-operatives are increasingly available.

Questions, however, remain. How do home-schooled students fare, compared to their counterparts in public school?

International studies continue to show that home-schooled students score, on average, higher on standardized tests than their public-school counterparts. Moreover, a recent study found that home-schooled students taking university-level calculus were better prepared and achieved higher final grades than their peers in the same course.



More evidence: A recent Canadian study found that home-schooled students were more likely than their peers from other education sectors to complete a doctorate or a professional degree. Even special needs students with learning disabilities were found, in several US studies, to have higher levels of academic engagement and achievement than similarly affected students in public schools.

But of course, not all home schooling is the same. In fact, researchers frequently claim this is one of the reasons it's hard to analyze. Recent Canadian research notes that certain types of home schooling are associated with higher academics outcomes. More structured approaches and parents with an eye on academic achievement goals appear related to higher test scores.

Are our provincial governments paying attention? By some measures, yes. At least five provinces recently updated regulations and policies related to home schooling (the three western-most provinces, Quebec, and Prince Edward Island) while other provinces, such as Ontario, continue to provide plenty of flexibility for home schooling. Three provinces—BC, Alberta, and Saskatchewan—offer some funding for parents or third-party providers to mitigate the costs associated with home schooling. The highest amount offered to parents anywhere in Canada is $1,000 per student annually in one school district in Saskatchewan. And in terms of accountability to local or provincial education authorities, the provinces expecting the most reporting from parents are Alberta, Saskatchewan, and Quebec.

But back to who benefits. It's not just the students and their families. Taxpayers benefit, too. By the most conservative calculations, home schooling families saved Canadians more than a quarter of a billion dollars in 2011/12 alone.

So if it turns out that returning to school in September hasn't been part of every student's plan, we shouldn't fret. In fact, parents, policymakers, and other educational professionals seeking innovations in effective and efficient approaches to education may only have to look out the window to the neighbours next door.

This September, in particular, with teacher strikes looming, more Canadians may be looking for reliable educational alternatives. FI

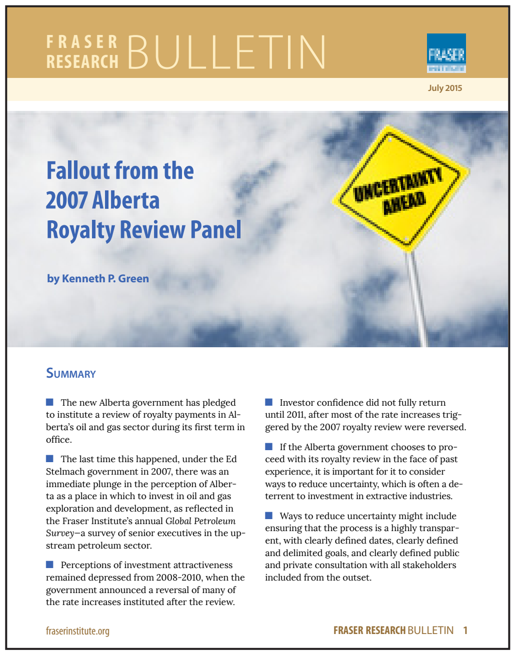

DEANI VAN PELT

Deani Van Pelt, PhD, is director of the Barbara Mitchell Centre for Improvement in Education at the Fraser Institute and author of *Home Schooling in Canada: The Current Picture—2015 Edition.*

Learning from the Past: Fallout from the 2007 Royalty Review Panel

Kenneth P. Green

The Alberta NDP's election platform (quickly expunged from their website after their win) pledged to: "Establish a Resource Owners' Rights Commission to report to the new premier and the Legislature within six months on measures to promote greater processing of Alberta's energy resources, and to ensure a full and fair return to the people of Alberta for their energy resources." And now, Premier Rachel Notley has made good on that promise, appointing ATB Financial chief Dave Mowat to head the royalty review.


FRASER RESEARCH BULLETIN

July 2015

Fallout from the 2007 Alberta Royalty Review Panel

by Kenneth P. Green

SUMMARY

- The new Alberta government has pledged to institute a review of royalty payments in Alberta's oil and gas sector during its first term in office.
- The last time this happened, under the Ed Stelmach government in 2007, there was an immediate plunge in the perception of Alberta as a place in which to invest in oil and gas exploration and development, as reflected in the Fraser Institute's annual *Global Petroleum Survey*—a survey of senior executives in the upstream petroleum sector.
- Perceptions of investment attractiveness remained depressed from 2008-2010, when the government announced a reversal of many of the rate increases instituted after the review.
- Investor confidence did not fully return until 2011, after most of the rate increases triggered by the 2007 royalty review were reversed.
- If the Alberta government chooses to proceed with its royalty review in the face of past experience, it is important for it to consider ways to reduce uncertainty, which is often a deterrent to investment in extractive industries.
- Ways to reduce uncertainty might include ensuring that the process is a highly transparent, with clearly defined dates, clearly defined and delimited goals, and clearly defined public and private consultation with all stakeholders included from the outset.

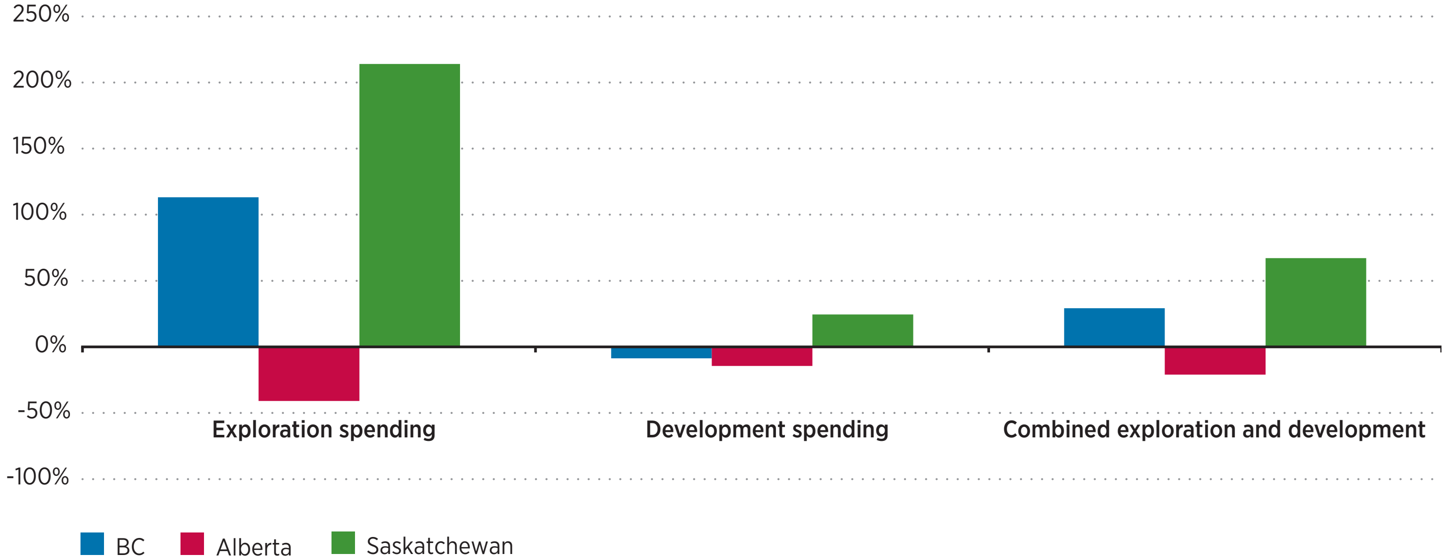
fraserinstitute.org FRASER RESEARCH BULLETIN 1

This won't be Alberta's first royalty review. It would behoove us to see what we might learn from previous endeavors, notably, the royalty review conducted in 2007 under Premier Ed Stelmach and published in a document entitled *Our Fair Share*, issued by then-finance minister Dr. Lyle Oberg in September 2007. In that report, the royalty review panel concluded that indeed, Albertans were not receiving their fair share of revenues from Alberta's oil and gas resources, suggesting the need for significant increases in royalty rates.

By coincidence, the Stelmach royalty review coincided with the first years of the Fraser Institute's *Global Petroleum Survey*, an annual survey of oil and gas executives that ranks jurisdictions around the world on their overall policy framework surrounding oil and gas development. Executives are asked to assess the policy environment of jurisdictions with regard to whether those policies would attract investment, or deter it. One of the factors assessed is each jurisdiction's "fiscal terms" including licenses, lease payments, royalties, other production taxes, and gross revenue charges (but not corporate and personal income taxes, capital gains taxes, or sales taxes).

The findings of the survey in the years immediately surrounding the Stelmach royalty review, particularly pertaining to the question on the perceived attractiveness of fiscal terms, are revealing. Survey responses indicating that Alberta's fiscal terms would deter investment rose from just 12 percent in 2007, to 54 percent by 2008, and to 70 percent by 2009. Expressed deterrence declined beginning in 2010, when announcements were made about reversing many of the increased royalties but it would take until 2013 to return to the low rates that preceded the review.

PERCENTAGE CHANGE IN SPENDING ON EXPLORATION AND DEVELOPMENT IN ALBERTA, 2006 TO 2008

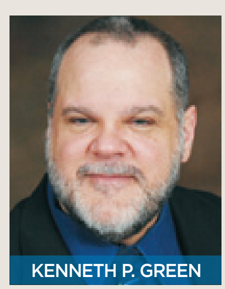


And real-world spending tracked with our survey: according to the Canadian Association of Petroleum Producers, from 2006 to 2008, exploration and development spending dropped in Alberta—but increased in British Columbia and Saskatchewan. Clearly the drop was not only about weak oil prices at the time.

Alberta's ranking among its peers for its perceived policy environment also took a beating. In 2007, Alberta led all other Canadian jurisdictions in the perceived attractiveness of its fiscal regime. They fell to sixth place in 2008, and by 2009 Alberta's ranking for fiscal terms that encourage investment fell to the lowest out of all Canadian jurisdictions. By 2011, after restoring royalties to their pre-review levels, the industry's perception changed quickly. Alberta's ranking according to the fiscal terms factor shot back up to fifth place with regard to its attractiveness to investment among the 10 Canadian jurisdictions included in the survey.

In its own upcoming royalty review, the Notley government would do well to review data showing the impact of the Stelmach government's 2007 review process on the perceptions of senior executives in the oil and gas industry with regard to Alberta's attractiveness for investment. The 2007 royalty review and successive changes were immediately reflected in declining perceptions of investment attractiveness of the province in Fraser Institute's annual *Global Petroleum Survey*. A more general lesson that can be learned both from the petroleum survey and the institute's annual *Survey of Mining Companies* is that when governments inject uncertainty into markets, perceptions of investment attractiveness in that jurisdiction suffer.

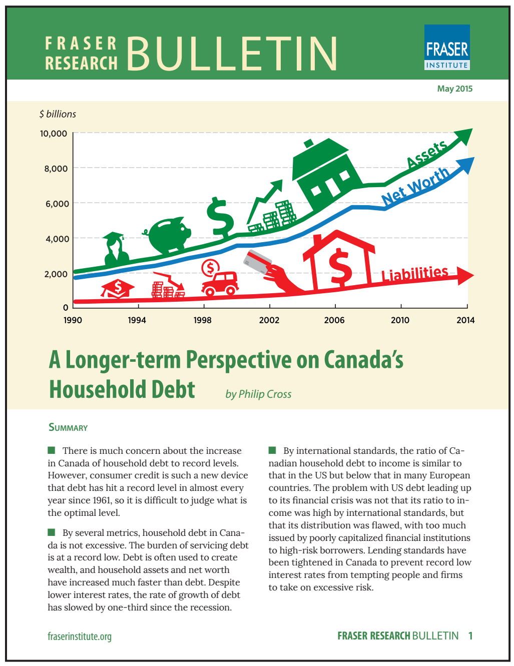
Given its dependence on petroleum revenues, and the current low point in crude oil prices, Alberta cannot afford a strong injection of uncertainty at this time, any more than it could in 2007. But should it proceed with its royalty review, the Notley government can limit uncertainty by ensuring that the review process is highly transparent, with clearly defined dates, clearly defined and delimited goals, and clearly defined public and private consultation. FI



Kenneth P. Green is the Fraser Institute's senior director of Natural Resource Studies. He is author of *Fallout from the 2007 Alberta Royalty Review Panel*.

High Household Debt **No Cause for Panic**

Philip Cross


FRASER RESEARCH BULLETIN

FRASER INSTITUTE

May 2015

A Longer-term Perspective on Canada's Household Debt

by Philip Cross

SUMMARY

- There is much concern about the increase in Canada of household debt to record levels. However, consumer credit is such a new device that debt has hit a record level in almost every year since 1961, so it is difficult to judge what is the optimal level.
- By several metrics, household debt in Canada is not excessive. The burden of servicing debt is at a record low. Debt is often used to create wealth, and household assets and net worth have increased much faster than debt. Despite lower interest rates, the rate of growth of debt has slowed by one-third since the recession.
- By international standards, the ratio of Canadian household debt to income is similar to that in the US but below that in many European countries. The problem with US debt leading up to its financial crisis was not that its ratio to income was high by international standards, but that its distribution was flawed, with too much issued by poorly capitalized financial institutions to high-risk borrowers. Lending standards have been tightened in Canada to prevent record low interest rates from tempting people and firms to take on excessive risk.

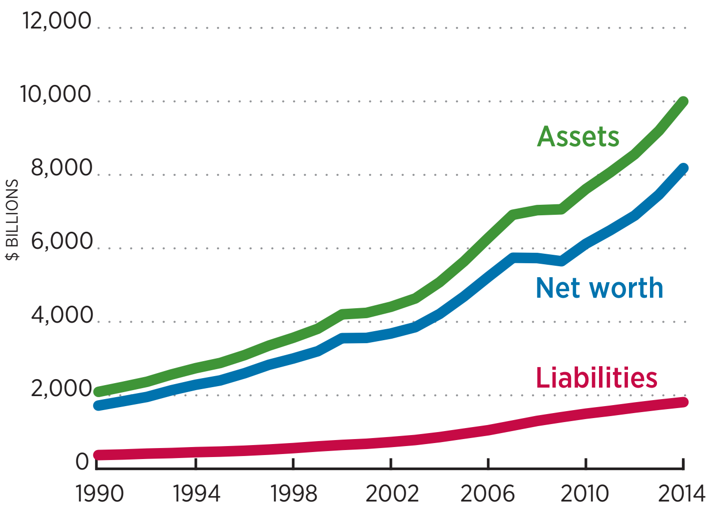
fraserinstitute.org FRASER RESEARCH BULLETIN 1

Hand-wringing over household debt in Canada itself has reached a record high, to paraphrase the most common characterization of the level of household debt. Not that there is anything unusual about debt setting record highs; it established a new peak in all but one of the 53 years Statscan has kept score, each greeted by headlines screaming about record debt. Then again, in a healthy growing economy, one would expect everything from income to employment to retail sales and debt to hit new highs most years. In itself, hitting a record high isn't even noteworthy let alone justifying alarmist news headlines.

Consumer credit (which is about one-third of all household debt) reaching a record high is particularly routine because credit cards are such a recent innovation. The first credit card transaction in the world only occurred in 1950 (to buy a dinner at Major's Cabin Grill in New York). American Express introduced the first general purpose credit card in 1958. Visa and MasterCard did not create a national credit card system until 1968. Naturally, credit rose rapidly every year as consumers got used to the novelty of credit cards until they became routine for the next generation. Since credit is such a new innovation, economists have no way of knowing what the optimal or sustainable level is.

The standard yardstick that simply compares aggregate household debt to income reveals little by itself. By international standards, households in the US did not have a particularly high ratio of household debt to income leading up to the onset of the financial crisis in 2007, reflecting that the source of its problem was not the overall level but the distribution of debt by under-capitalized financial institutions to high-risk borrowers. Canada's debt-to-income ratio of 163 percent is well below rates of 200 percent or more in some European countries, and less than the US peak in 2007 (when adjusted to the same concepts). To replicate the US disaster here would require enough households to default or be in arrears on their debt to create severe problems not only for themselves but for the whole banking system. To avert this outcome in Canada, lending standards have been tight-

THE NET WORTH OF CANADIAN HOUSEHOLDS, 1990—2014



ened considerably, with shorter amortization periods (the inherent conservatism of our banks was reflected in their resistance to the CMHC's extension to 40 years, since returned to 25 years), higher mortgage down payments, and more insurance against default.

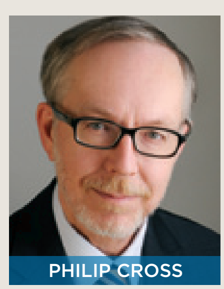
There are few signs that households in Canada overall are using debt irresponsibly, even if record low interest rates create the temptation to load up on debt. The 2008 recession obviously had a sobering effect on households in Canada. As shown in the accompanying graph, the growth of household debt in Canada has decelerated steadily from 12 percent before the recession to just 4 percent. That there remains a microscopic difference between the growth of debt and income is of interest only to sensationalistic headline writers.

The moderation has been more pronounced for consumer credit than mortgages, which further reduces the cost and the risk associated with household debt. The slowdown of debt growth since the recession blows up the narrative that debt is compensating for slow income growth in Canada. Instead, it is an intelligent and disciplined response by households to historically low interest rates. Many of our provincial governments have much to learn from ordinary Canadians in this regard.

There are few if any signs that Canadians overall are finding their level of debt unusually burdensome. Even with debt at a record level, the burden of servicing this debt is at a record low of just under 7 percent of incomes, thanks to historically low interest rates. Not surprisingly, the number of consumers having trouble making debt payments or filing for personal bankruptcy remains low. And there is room for households to absorb some hikes to interest rates, assuming our central bank can remember how to execute such a daring policy. As recently as 2007, households demonstrated that they could easily divert over 9 percent of their income to debt payments without hampering growth.

Even with debt at a record level, the burden of servicing this debt is at a record low of just under 7 percent of incomes, thanks to historically low interest rates.

The public discussion's exclusive focus on household debt ignores the much faster expansion of household assets and net worth, with the latter topping $8 trillion (net worth subtracts debt from the value of assets). Often these assets were acquired with debt, notably when buying real estate, starting a business, or going to school. Of course debt can be used irresponsibly in ways that harm an individual or are unsustainable for the banking system. Fortunately, there is little evidence overall that is the case in Canada today. FI



Philip Cross is author of the Fraser Institute study, *A Longer-term Perspective on Canada's Household Debt.*

EDUCATION PROGRAMS

Instructor Scott Neiderjohn is inundated with questions from journalists after his presentation on the financial crisis of 2008.

The Fraser Institute's Education Programs department continues to offer innovative programs to educate adults and students about the role of choice, entrepreneurship, and sound government policies in delivering prosperity and opportunity to Canadians.

ECONOMICS FOR JOURNALISTS

Again this summer, the department held the popular "Economics for Journalists" program in Vancouver and Toronto.

Participants from a range of positions, including producers, reporters, feature writers, and editors, came from all over Canada to take part in the program. This year included participants from the Business News Network, CBC, CTV News, the *Financial Post* and *National Post*, Global TV (national and regional), the *Globe and Mail*, *Les Affaires*, Metro Winnipeg, Radio Canada, The Telegram and TV Ontario.

Journalists are introduced to basic economic concepts, using a mix of presentations, videos, group activities, and real-life examples to provide journalists with the knowledge to confidently explain economic issues, demonstrate why people behave the way they do, and analyze policies.

I will most definitely recommend this program! I already have. As a manager, I will encourage reporters to attend.

JOURNALISM PARTICIPANT

The Institute received a great deal of positive feedback after the event to help us refine the program.

A journalist selects an item for trading in a group activity that demonstrates the benefits of trade.

When questioned about the part of the seminar they found most useful, one-third of participants chose "how to read a budget," or some variant thereof. Many others found the explanation of basic economic terms (such as GDP, inflation, etc.) to be illuminating. Some noted that looking at the world in economic terms gave them a whole new perspective. One journalist said, "[T]he opportunity to look at issues from an economic perspective was most useful. This is something I will put to use in the newsroom every day…".

I am very grateful to have had the opportunity to attend this workshop. I will use all the activities you provided in my classes, especially AP [Advanced Placement] Government + Policy and Social Studies 10.

WORKSHOP PARTICIPANT

TEACHER WORKSHOPS

In early June Vancouver hosted the *Myths of the Canadian Economy* teacher workshop. In this program, teachers learn, how the Canadian economy has changed over the last 20 years, what GDP is and how is it measured, how banks create money, and how economic freedom is closely associated with high levels of per capita income. Teachers find the lessons from this popular workshop easy to incorporate into their existing curriculum and they've told us that students find the material engaging.

Instructor Mark Schug demonstrates a unique method for teaching how GDP is calculated.

This was extremely useful. Thank you! I really appreciate all the ready-to-use resources and knowledgeable speakers.

WORKSHOP PARTICIPANT

One instructor in attendance was so persuaded by the workshop materials, and level of instruction that he invited the Education Programs team to visit UBC in July to speak to his class of business education student teachers. We introduced his students to the various programs and resources we offer educators and then gave them a sense of what our workshops are like by having them participate in hands-on activities demonstrating diminishing returns and the benefits of trade. The day went so successfully that we have been invited to return next year. FI

Employment growth in Canada: Government outpacing private sector

GOVERNMENT SECTOR

(FEDERAL, PROVINCIAL, LOCAL)

3.0 MILLION

3.6 MILLION

NUMBER OF EMPLOYEES

2003

2013

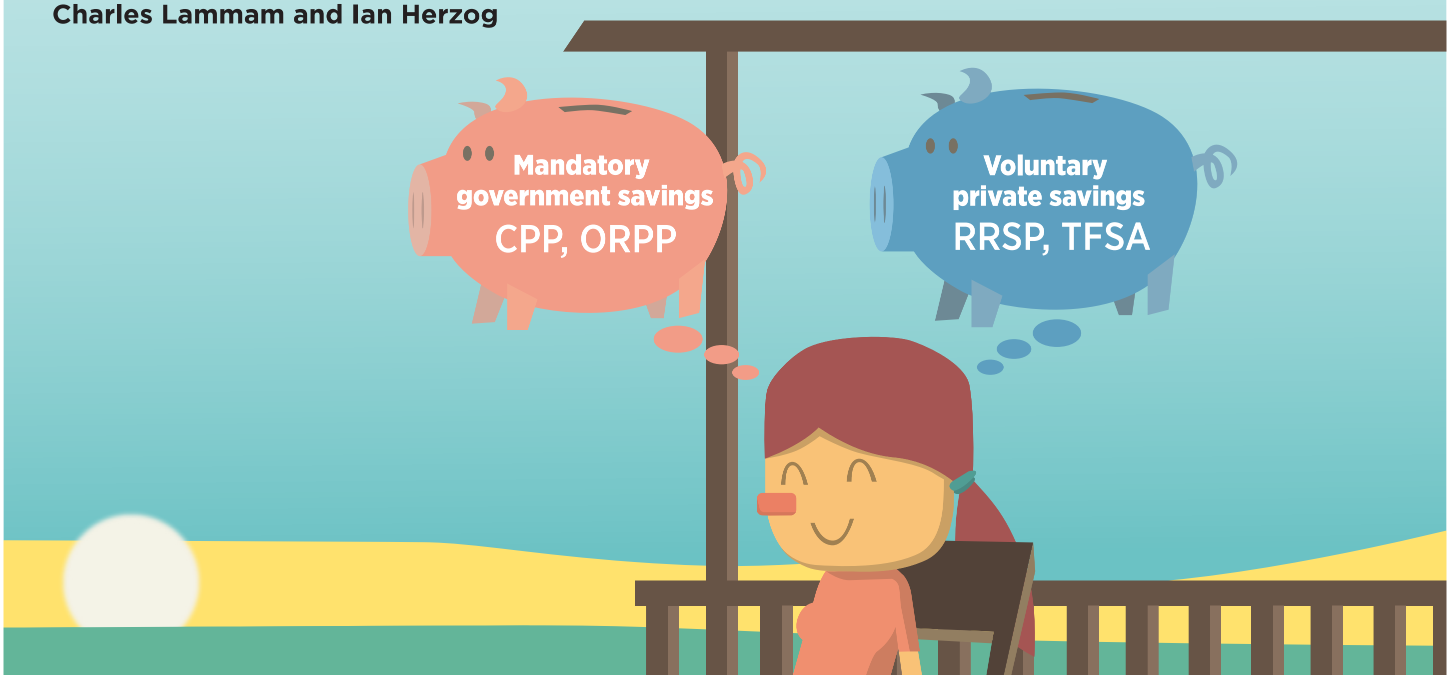
10.3 MILLION

11.4 MILLION

PRIVATE SECTOR

If Governments Force Canadians to Save More for Retirement, **Voluntary Private Savings will Shrink**

Charles Lammam and Ian Herzog



In recent years, there's been a strong push to expand the Canada Pension Plan, and Ontario intends to launch an additional mandatory pension plan in January 2017. Yet the debate about expanding mandatory government-run pensions has largely overlooked the unintended effect on private savings.

Increasing mandatory retirement savings can reduce the amount households save voluntarily. After all, Canadians choose how much they save and spend based on their income and preferred lifestyle. If their income and preferences don't change, and the government mandates higher contributions to government-run pension plans, they will simply reduce their private savings in RRSPs, TFSAs, and other investments. The result: overall savings won't change much, or at all, but there will be a reshuffling, with more money going to forced (government) savings and less to voluntary (private) savings.

This "substitution effect" has been highlighted by standard economic theory and in international studies. But surprisingly, few in Canada are talking about it.

In a recent Fraser Institute study, *Compulsory Government Pensions vs. Private Savings: The Effect of Previous Expansion to the Canada Pension Plan*, we examined the effect on private savings when Canadians were forced to contribute more to the CPP in the past. Our analysis focused on major changes to the CPP between 1996 and 2004, when the total contribution rate rose from 5.6 percent to 9.9 percent of insurable earnings, as part of reforms to improve the program's long-term outlook.

We found that past increases in the mandatory CPP contribution rate were followed by decreases in the private savings rate of Canadian households. (The analysis accounted for interest rate changes and demographic shifts in age, income and home ownership.) Specifically, with each percentage point increase in the total CPP contribution rate, we found a 0.895 percentage point drop in the private savings rate of the average Canadian household.

For each percentage point increase in the total CPP contribution rate, we found a 0.895 percentage point drop in the private savings rate of the average Canadian household.

The results suggest that for every one dollar increase in CPP contributions, the average Canadian household reduced private savings by around one dollar. Again, that means they didn't necessarily save more overall—they just saved differently.

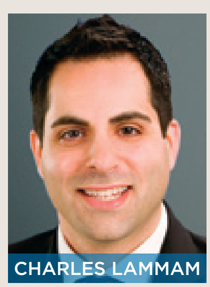
Interestingly, the substitution effect was stronger among younger (under 30) and mid-career households (ages 30-49) and weaker among Canadians approaching retirement (ages 50–64). It was also more dramatic among lower-and middle-income households than those with higher incomes.

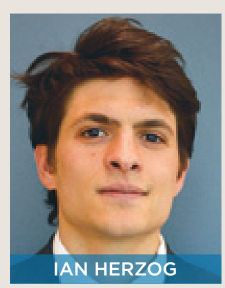
The debate about mandatory expansion of the CPP, or any new provincial plan such as the upcoming Ontario Retirement Pension Plan, should address the consequences of reduced private savings—namely, the loss in choice and flexibility available with this type of saving.

For example, with private voluntary RRSP savings, Canadians can tailor their investments, pull money out for a down-payment on a home or to upgrade education, transfer the money to a beneficiary in the event of death, or withdraw money in case of emergency. Not so with the CPP.

The key to providing retirement income through savings is a set of rules that allows for an optimal mix of savings for different people in different stages of life, and with different preferences. The benefits of a mandatory expansion of the CPP, or of similar provincial policies in Ontario or any other province, should be weighed against the costs, which as our analysis suggests will include a reduction in voluntary private savings.

This reality needs to be foremost in the ongoing pension policy debate. Otherwise, we risk overstating the gains from expanding government-run pensions. FI



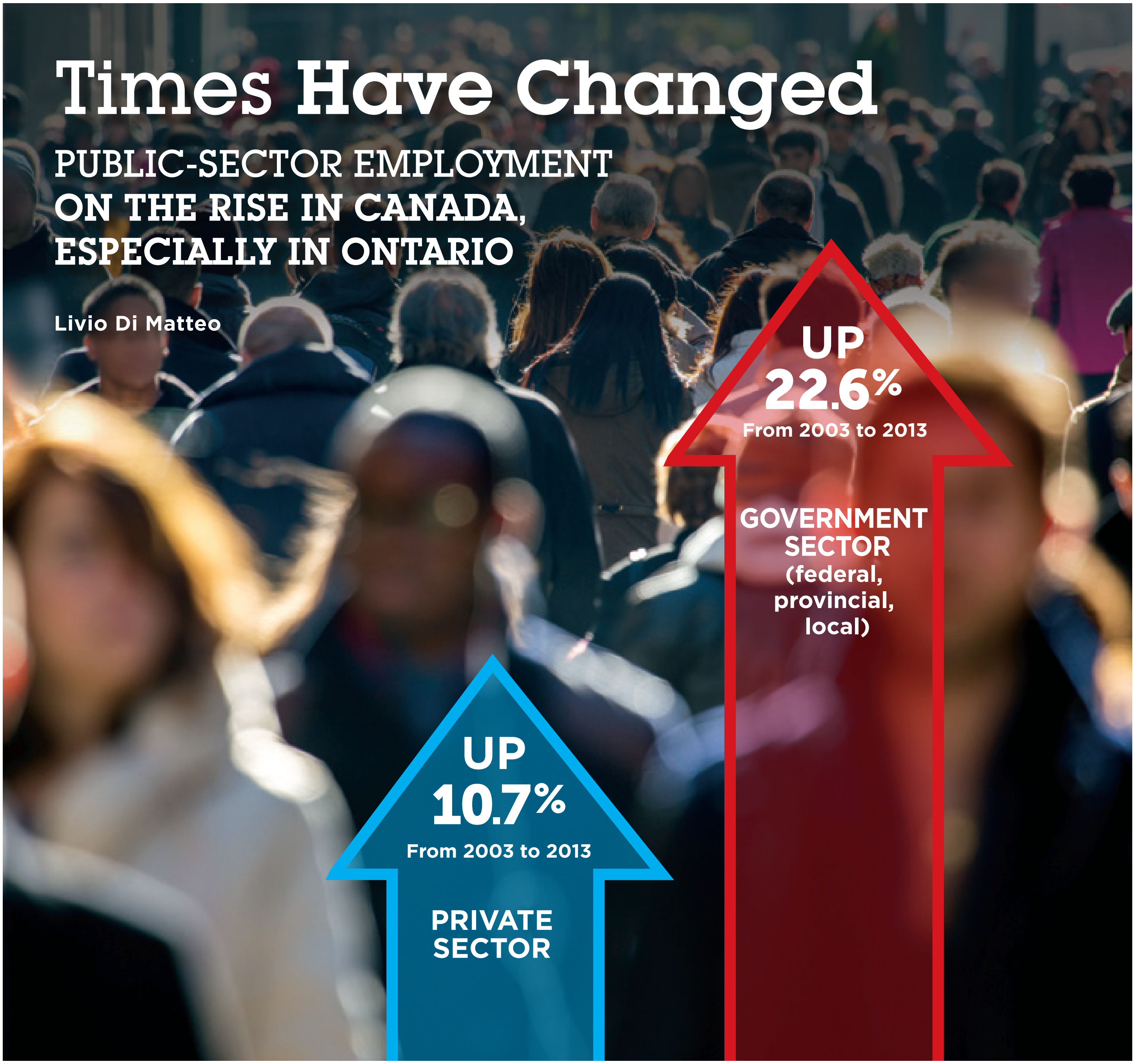


Charles Lammam and Ian Herzog are co-authors of the Fraser Institute study *Compulsory Government Pensions vs. Private Savings: The Effect of Previous Expansion to the Canada Pension Plan*.

Times Have Changed

PUBLIC-SECTOR EMPLOYMENT ON THE RISE IN CANADA, ESPECIALLY IN ONTARIO

Livio Di Matteo



Think back to the early 1990s, a period when Canada's federal and provincial governments faced a major fiscal crisis driven by massive red ink at both the federal and provincial levels. Governments responded with sweeping action, including restraint and spending reforms, which helped position the country for stronger economic performance thereafter.

As part of their response, governments reduced transfers and their payrolls, resulting in a smaller share of Canadians employed in the public sector. Specifically, the public-sector share of employment in Canada (excluding the self-employed) fell from 26.1 percent in 1992 to 22.3 percent in 2003.

However, since then, the share has increased, peaking at 24.4 percent in 2010 before dropping slightly to 24.1

percent by 2013. The public sector now employs a bigger chunk of Canadians than it did in 2003. In fact, over the 10 years leading up to 2013, all provinces (except Newfoundland & Labrador) saw an increase in their share of public-sector employment. Today, over 3.6 million Canadians work for the public sector.

So how did we get here?

From 2003 to 2013, employment in Canada's public sector increased by 22.6 percent, more than double the rate of increase in the private sector (10.7 percent). During this period, public-sector employment grew at a faster rate than the private sector in all the provinces except, again, Newfoundland & Labrador.

From 2003 to 2013, public sector employment growth in Ontario (27.6 percent) dramatically outpaced private sector employment growth (5.6 percent) by a whopping 22 percentage points.

By a considerable margin, this phenomenon was most pronounced in Ontario. From 2003 to 2013, public sector employment growth in Ontario (27.6 percent) dramatically outpaced private sector employment growth (5.6 percent) by a whopping 22 percentage points. Interestingly, Ontario's 10-year increase in public sector employment coincides with a period of dramatic increases in provincial government spending, rising government debt, and sluggish economic growth.

There are important adverse economic and fiscal implications that may result from growing public-sector employment. Empirical research points to a so-called "crowding-out" effect where employment through public-sector job creation is offset by a reduction in private sector employment elsewhere in the economy. This is a concern because it's the private sector—through investment and innovation—that ultimately generates the wealth and taxes needed to provide the public services that we all hold dear.

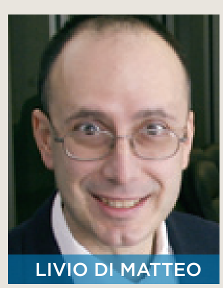
If public-sector employment simply crowds out private-sector employment, this could leave unemployment rates either unchanged or possibly higher. International empirical research has found some evidence of this crowding-out effect.

Preliminary statistical analyses for Canada's provinces over the 1990 to 2013 period support these international findings and suggest larger public-sector employment shares are accompanied by lower rates of private-sector employment growth and higher unemployment rates. A larger public-sector employment share is also accompanied by a flat relationship with provincial rates of economic growth.

The correlations observed in the Canadian data are not necessarily causal relationships. Naturally, a complete statistical analysis requires controlling for the government's budget balance, the state of the business cycle on public-sector employment, and any potential complementarities between public and private sector employment.

Nevertheless, these trends and correlations help illuminate the impact of the public/private employment balance on economic performance and the need for further research to rigorously assess causation and confounding factors in these important economic relationships.

The public-sector share of employment in Canada today has recovered to levels not seen since the early 1990s, an era of persistent deficits and ballooning government debt. In the wake of the 2008/09 recession, large deficits have again surfaced at the federal and particularly provincial levels. Perhaps surprisingly, the public-sector share of employment has not declined as it did in the 1990s, but has largely remained stable. FI

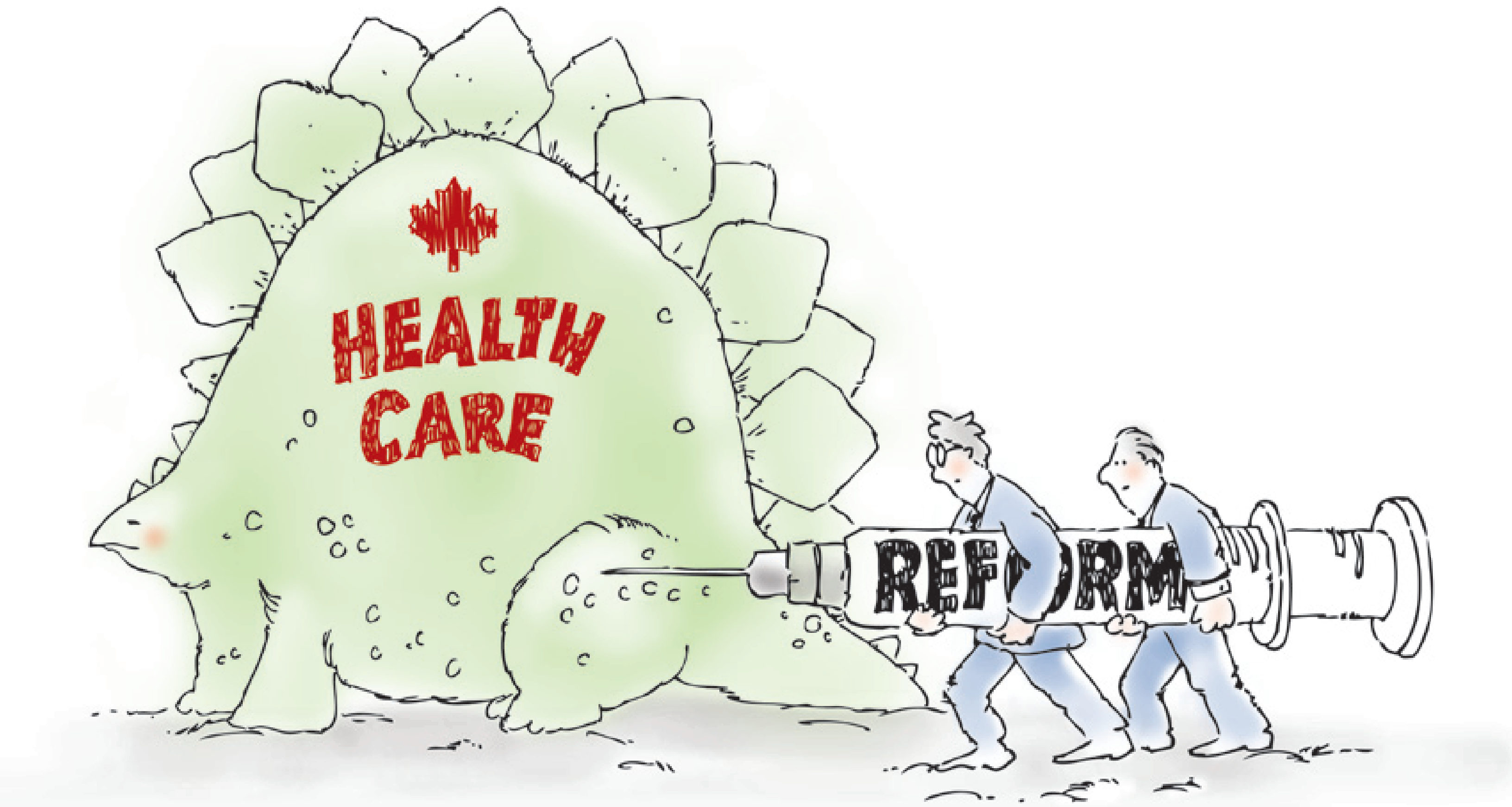


Livio Di Matteo is a senior fellow at the Fraser Institute and professor of economics at Lakehead University. He recently authored *An Analysis of Public and Private Sector Employment Trends in Canada.*

APPEARED IN THE VANCOUVER PROVINCE

Sorry Mr. Trump, Canadian Health Care is Not Working

Jason Clemens and Bacchus Barua



As is often the case in US politics—though normally on the Democratic side of the aisle—Canada's health care system was raised as a functioning alternative to the American model. Specifically, in a recent televised debate, GOP front-runner Donald Trump described Canada's health care system as working just fine.

The facts are markedly different from Mr. Trump's description. Canada suffers from a high-cost health care system that delivers only modest performance across most measures of health care. Put simply, Canada's model of health care delivery and financing is not something to be emulated, but rather avoided.

In terms of cost, Canada's system is among the most expensive among the OECD countries that provide universal access to health care, after adjusting for age. This latter point is essential since demographics are a key driver of health care costs. Data for 2011, the most recent year currently available, shows that Canada's health care system was the second most expensive (measured as a share of the economy) among 27 OECD countries with universal access.

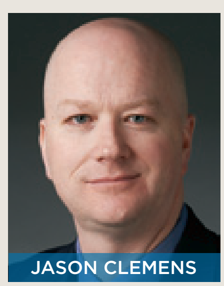
In a comparative sense, Canada's wait lists are among the worst in developed countries... There are also worrying statistics regarding Canadians' access to medical doctors and technology.

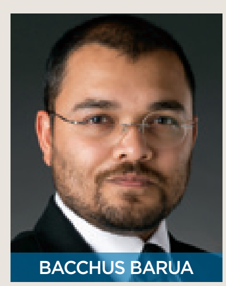
The cost of Canada's health care system would be less worrying if it was deemed to be high-performing. On measure after measure, however, Canada's performance is middling at best. A central problem in Canada's health care system and a driving force for reform are wait times for medical procedures. The latest data for waiting lists indicates that in 2014, Canadians could expect to wait 18.2 weeks for treatment after seeing a general practitioner, which is 96 percent longer than they had to wait in 1993. Such wait times are three weeks longer than what physicians consider clinically reasonable.

In a comparative sense, Canada's wait lists are among the worst in developed countries. According to the Commonwealth Fund, Canada ranked dead last on most measures of timeliness of care (behind 10 other countries, including the United States). Only 41 percent of patients in Canada were able to get an appointment the same day (or next) when sick compared to 76 percent of patients in Germany. Further, 29 percent of Canadians waited two months or more for a specialist appointment while only three percent reported such waits in Switzerland and the Netherlands.

There are also worrying statistics regarding Canadians' access to medical doctors and technology. For instance, among OECD countries with universal access, Canada ranked close to the bottom of the pack (25 of 27) for availability of practicing doctors per thousand population, and below the OECD average (16 of 24) for availability of MRI scanners per million population.

Health care reform is a central policy consideration for most industrialized countries both because of its cost to government and citizens and perhaps more importantly because it is a highly-valued, personal service that citizens care deeply about. Successful reforms are premised on accurate information. Contrary to statements made by Donald Trump, Canada's health care system is neither high-functioning nor of reasonable cost. It should not be considered a model for reform—except for what to avoid. FI





Jason Clemens is executive vice-president and Bacchus Barua is senior health economist at the Fraser Institute.

Canada's Pipeline Debate Needs Reality Check

Kenneth P. Green and Taylor Jackson

It has been a difficult few weeks for Kinder Morgan's proposed expansion of the Trans Mountain pipeline. The Santa Barbara oil spill has irritated already-sensitive public concern about oil pipelines. And as the pipeline's review before the National Energy Board continues, several new reports commissioned by municipalities and groups in the region have expressed serious concerns about the potential effects of an oil spill.

One study found that more than one million birds might be affected by a spill and 100,000 could possibly be killed as a result. Another asserted that millions of barrels of oil could erupt into flames, start a forest fire on Burnaby Mountain, stranding 30,000 students at Simon Fraser University. The latest report concluded that a 16 million-litre spill in the Burrard Inlet could deliver a $1.2 billion blow to Vancouver's economy. Alarming scenarios indeed. But a focus on worst-case scenarios loses sight of what's vastly more likely to happen, which can only be assessed by looking at the overall performance of pipelines, where progress in controlling spills has been tremendous.

According to Transportation Safety Board data, from 2009 to 2013 there were 770 pipeline accidents and incidents in Canada. Of this number, 654 resulted in some sort of release of product. Again, this may seem large, but during this period Canada's federally regulated pipeline system moved more than 11 billion barrels of petroleum and natural gas products, making the per barrel accident rate remarkably low.

Real-world data and experience show that pipelines are one of the safest ways to transport oil.

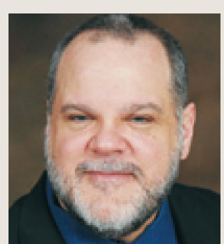
More telling still is that only five accidents or incidents in this period resulted in any sort of environmental damage. This means that only about 0.65 percent of all accidents and incidents cause some form of environmental damage. This is not entirely surprising when 90 percent of releases are less than one cubic metre.

Moving from the generic to the specific, let's consider the safety record of the existing Trans Mountain pipeline. Since 2004, the earliest year with reliable and comparable data, the pipeline has had 36 accidents or incidents, with 14 resulting in the release of product roughly equating to 790 cubic metres. The largest of these releases amounted to 305 cubic metres of oil. By way of comparison, the hypothetical 16 million-litre spill, which could have a $1.2 billion dollar impact on Vancouver's economy, is equal to 16,000 cubic metres—52 times larger than the worst release in the pipeline's history.

The debate over oil transport is often dominated by worst-case scenarios and discussion. And of course, nobody wants to see oil spilled and nature harmed. But let's be honest: rational people do not live their lives by worst-case-scenario avoidance or zero-risk lifestyles. If so, you'd never ride a bike, never drive a car, never board an airplane, or for that matter, never take a shower. In fact, your list of things you wouldn't do given worst-case scenarios and a zero-risk threshold would encompass pretty much everything you have ever or will ever do.

Worst-case scenarios aside, real-world data and experience show that pipelines are one of the safest ways to transport oil. It's not perfect, but it's the best of the available options. On an apples-to-apples comparison, one that takes into account the volume of oil transported, pipelines are associated with fewer accidents, injuries, and fatalities than rail and truck, which is how oil will move if pipelines are not built.

Oil will remain a part of Canada and the world's future for a long time to come. And it will continue to fuel a large part of the Canadian economy while providing Canadians with access to reliable and affordable energy. Consideration should be given to the safest and most efficient way to transport oil and gas across the country. Despite high-profile spills and worst-case scenarios, pipelines remain the safest, most effective way to transport oil. FI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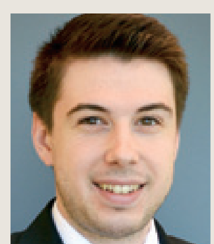

TAYLOR JACKSON

Kenneth P. Green is Senior Director and Taylor Jackson is a Policy Analyst in Natural Resource Studies at The Fraser Institute.

Social Mobility is Alive and Well in Canada

Charles Lammam and Hugh MacIntyre

Is Canada still a land of opportunity? If you base your opinion on what sometimes appears on editorial pages or social media threads, you might not be sure.

A fundamentally false perception seems to be gaining currency in some precincts. It posits that a young person's ability to succeed economically in Canada is predetermined by their parent's social class. In this worldview, things like education, hard work, experience, and persistence don't matter much. Thankfully, nothing could be further from the truth. In reality, young people in Canada are not shackled to the economic class into which they are born. Canadian society has a high degree of mobility—both within and across generations—and that's something we should celebrate. The message to young people should be one of hope—not doom and gloom.

Here's the typical life path for Canadians. Many start with low-paying jobs when they're young, in school, and have little work and life experience. After finishing college, university, or other training, a high wage isn't guaranteed. But with hard work and skills development, earnings increase over time as we experience promotions or switch to higher paying jobs (earnings generally peak in middle-age before dropping off as retirement nears).

Canada is one of the most socially mobile societies in the developed world... having low-income parents does not condemn one to having low income as an adult.

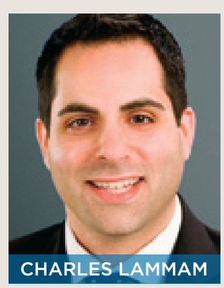
While this experience may sound intuitively familiar to many older Canadians, intuition alone need not apply: the data bears it out. Consider the results from a 2012 Fraser Institute study, *Measuring Income Mobility in Canada*, which used Statistics Canada data to track a sample of a million Canadians from 1990 to 2009 to see how their incomes changed. The study put individual tax filers into five income groups (from lowest to highest income) with each group comprising 20 percent of the total.

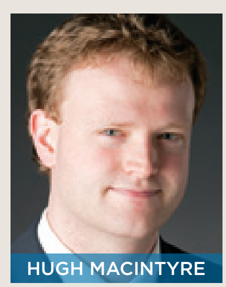
Over the 19-year period, 87 percent of Canadians initially in the bottom income group moved to a higher group. Put differently, in that period almost nine out of every 10 Canadians who started in the bottom 20 percent had moved out of low income. Of those from the bottom 20 percent in 1990 that moved up, an almost equal proportion moved into each of the four higher groups. Remarkably, two of every five Canadians in the bottom income group in 1990 ended up in the top 40 percent of income earners by 2009.

These findings are consistent with other research based on Statistics Canada data. And a growing body of research shows that Canadian families are financially mobile over generations. Studies point to a surprisingly high level of "intergenerational mobility"—the finding that a Canadian child's future economic success is not strongly linked to his parents' financial position. Sure, parents can influence their children's economic trajectory, but there are no guarantees.

Miles Corak, an economics professor at the University of Ottawa and former Statistics Canada researcher, is a pioneer in the area of measuring intergenerational mobility. His research shows that Canada is one of the most socially mobile societies in the developed world. In Canada, the relationship between the income of parents and the income of children in adulthood is weaker than in the United States and United Kingdom, and even some European countries including France and Sweden. Moreover, the same relationship between parents and children in Canada is weakest at the lower end of the income scale. That means having low-income parents does not condemn one to having low income as an adult.

While there are no guarantees of success, the opportunity to do better (or worse) than your parents is great in Canada. This is a feature of our society that should be recognized and celebrated, not dismissed or denied. Despite what the naysayers say, social mobility is alive and well in Canada. FI





Charles Lammam is director of fiscal studies and Hugh MacIntyre is policy analyst at the Fraser Institute.

Dear Mr. Clark, Please Tell the Premier that **Revenue is Not Ontario's Problem**

Niels Veldhuis and Ben Eisen

According to the *Globe and Mail*, Ontario Premier Kathleen Wynne has a new advisor, former TD Bank chief executive officer, Ed Clark. Mr. Clark will apparently advise the government on a host of issues including finding new sources of revenue to help balance the provincial budget.

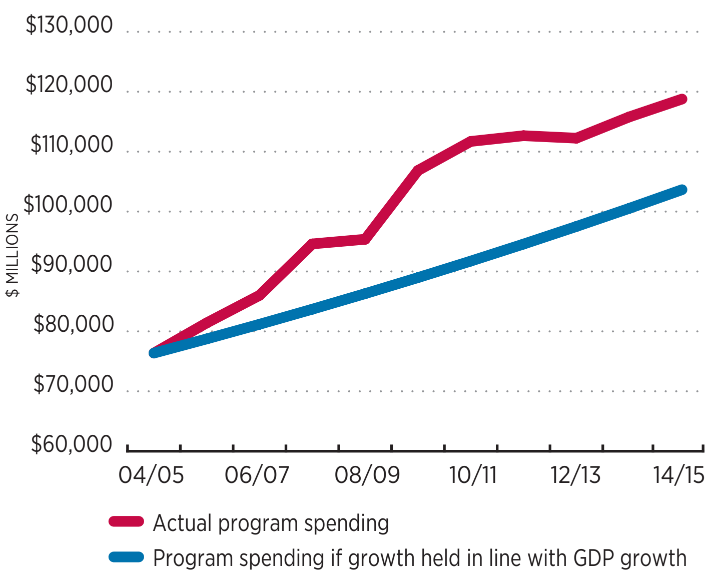
We hope Mr. Clark, a well-respected business leader, does not believe the popular myth that Ontario policymakers are blameless for the massive debt accumulated by the province. As the myth goes, the province's annual deficits and mushrooming debt are driven by forces outside anyone's control. To rectify the problem, the government simply needs to find more revenue.

Back in 2010, Mr. Clark favoured hiking the GST to combat the federal deficit. His recommendation demonstrated a surprising lack of understanding about the real source of the federal deficit.

As a result of the recession, federal revenues had decreased significantly in 2009/10. This decline in revenue was short-lived with revenues rebounding to pre-recession levels within two years (by 2011/12). Despite the rebound in revenues, the federal government will only balance the budget this coming fiscal year. The real problem hasn't been a lack of revenue. It is the massive ramp-up in government spending that was supposed to be "temporary" but never was. (As the old saying goes, there's nothing as permanent as a temporary government program.)

Now back to Ontario, where the provincial government is currently running a $10.9 billion dollar deficit. The provincial government and many in the media think the deficit is the result of a lack of revenue. That is why the Ontario government has been desperately seeking new revenues and has apparently recruited Mr. Clark to help. But the current deficit is not driven by a lack of revenue. Ontario has a spending problem.

PROGRAM SPENDING IN ONTARIO IN THE 2004/05 - 2014/15 FISCAL YEARS



Source: *Ontario vs. the U.S. "Rust Belt": Coping with a Changing Economic World.*

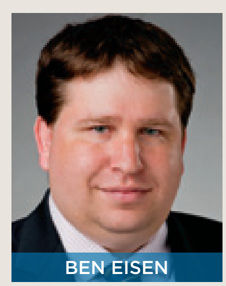
Over the past 10 years, the Ontario government has increased spending at an average rate of 4.6 percent a year. That is well beyond what was needed to compensate for population growth and cost increases, and well beyond the rate of economic growth. In fact, had spending increases been held to the rate of economic growth (an average of 3.1 percent a year), the Ontario government would currently be spending $104 billion a year instead of the nearly $119 billion it actually plans to spend this year. That's a difference of $15 billion, more than the current $10.9 billion provincial deficit. Had the government increased spending more prudently, Ontario would have a $4 billion surplus today. Put differently, the only reason Ontario is in a deficit today is because it has not managed its spending.

Of course, the narrative at Queen's Park is completely different. According to this account, provincial policymakers have been hamstrung by the global restructuring in manufacturing and a host of other external factors. The implication is that the government is not to blame for its ballooning debt because it was driven by forces outside of its control. If that were true, other jurisdictions like the Rust Belt states of Pennsylvania, Ohio, Indiana, Michigan, and Illinois would be in similar situations. They're not. In fact, many Rust Belt states are more reliant on manufacturing than Ontario, meaning they are more sensitive to the global restructuring.

Ontario's economy has actually grown faster than its Rust Belt counterparts, and yet those states have been much more fiscally responsible. From 2000/01 to 2012/13 (a period which covers both good and bad economic times), Ontario's annual deficit averaged 4.2 percent of its annual budget (spending). Meanwhile, Ohio and Indiana run surpluses while Michigan and Illinois ran small deficits.

As a result, Ontario's net debt was 36 percent of GDP in 2011/12, the last year of comparable provincial-state data. Every Rust Belt state had government debt of 5 percent of GDP or less.

The red ink in Ontario stems from poor fiscal policy, not external forces. To solve the problem, the government needs to strike at its root, which is irresponsible spending. This is the message that Mr. Clark, a man who no doubt understands the need for families, businesses, and governments to be prudent, should bring to the premier. FI



Niels Veldhuis is president and Ben Eisen is a senior policy analyst at the Fraser Institute. For more on this topic, see the Institute publication, *Ontario vs. the U.S. "Rust Belt": Coping with a Changing Economic World.*

Putting the 'Con' in Consensus

NOT ONLY IS THERE NO 97% CONSENSUS AMONG CLIMATE SCIENTISTS, **MANY MISUNDERSTAND CORE ISSUES**

Ross McKitrick

In the lead-up to the Paris climate summit, massive activist pressure is on all governments, especially Canada's, to fall in line with the global warming agenda and accept emission targets that could seriously harm our economy. One of the most powerful rhetorical weapons being deployed is the claim that 97 percent of the world's scientists agree what the problem is and what we have to do about it. In the face of such near-unanimity, it would be understandable if Prime Minister Stephen Harper and the Canadian government were simply to capitulate and throw Canada's economy under the climate change bus. But it would be a tragedy because the 97 percent claim is a fabrication.

Like so much else in the climate change debate, one needs to check the numbers. First of all, on what exactly are 97 percent of experts supposed to agree? In 2013, US President Barack Obama sent out a tweet claiming 97 percent of climate experts believe global warming is "real, man-made and dangerous." As it turns out, the survey he was referring to didn't ask that question, so he was basically making it up. At a recent debate in New Orleans, I heard climate activist Bill McKibben claim there was a consensus that greenhouse gases are "a grave danger." But when challenged for the source of his claim, he promptly withdrew it.

The Intergovernmental Panel on Climate Change asserts the conclusion that most (more than 50 percent) of the post-1950 global warming is due to human activity, chiefly greenhouse gas emissions and land use change. But it does not survey its own contributors, let alone anyone else, so we do not know how many experts agree with it. And the statement, even if true, does not imply that we face a crisis requiring massive restructuring of the worldwide economy. In fact, it is consistent with the view that the benefits of fossil fuel use greatly outweigh the climate-related costs.

One commonly cited survey asked if carbon dioxide is a greenhouse gas and human activities contribute to climate change. But these are trivial statements that even many IPCC skeptics agree with. And again, both statements are consistent with the view that climate change is harmless. So there are no policy implications of such surveys, regardless of the level of agreement.

The most highly cited paper supposedly found 97 percent of published scientific studies support man-made global warming. But in addition to poor survey methodology, that tabulation is often misrepresented. Most papers (66 percent) actually took no position. Of the remaining 34 percent, 33 percent supported at least a weak human contribution to global warming. So divide 33 by 34 and you get 97 percent, but this is unremarkable since the 33 percent includes many papers that critique key elements of the IPCC position.

Two recent surveys shed more light on what atmospheric scientists actually think. Bear in mind that on a topic as complex as climate change, a survey is hardly a reliable guide to scientific truth, but if you want to know how many people agree with your view, a survey is the only way to find out.

In 2012 the American Meteorological Society (AMS) surveyed its 7,000 members, receiving 1,862 responses. Of those, only 52 percent said they think global warming over the 20th century has happened and is mostly man-made (the IPCC position). The remaining 48 percent either think it happened but natural causes explain at least half of it, or it didn't happen, or they don't know. Furthermore, 53 percent agree that there is conflict among AMS members on the question.

So no sign of a 97 percent consensus. Not only do about half reject the IPCC conclusion, more than half acknowledge that their profession is split on the issue.

The Netherlands Environmental Agency recently published a survey of international climate experts. 6550 questionnaires were sent out, and 1868 responses were received, a similar sample and response rate to the AMS survey. In this case the questions referred only to the post-1950 period. 66 percent agreed with the IPCC that global warming has happened and humans are mostly responsible. The rest either don't know or think human influence was not dominant. So again, no 97 percent consensus behind the IPCC.

But the Dutch survey is even more interesting because of the questions it raised about the level of knowledge of the respondents. Although all were described as "climate experts," a large fraction only work in connected fields such as policy analysis, health and engineering, and may not follow the primary physical science literature.

Regarding the recent slowdown in warming, here is what the IPCC said: "The observed global mean surface temperature (GMST) has shown a much smaller increasing linear trend over the past 15 years than over the past 30 to 60 years." Yet 46 percent of the Dutch survey respondents—nearly half—believe the warming trend has stayed the same or increased. And only 25 percent agreed that global warming has been less than projected over the past 15 to 20 years, even though the IPCC reported that 111 out of 114 model projections overestimated warming since 1998.

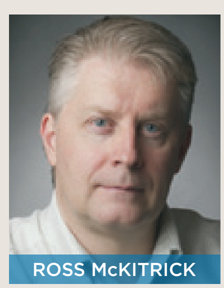
Three quarters of respondents disagreed or strongly disagreed with the statement "Climate is chaotic and cannot be predicted." Here is what the IPCC said in its 2003 report: "In climate research and modelling, we should recognize that we are dealing with a coupled non-linear chaotic system, and therefore that the long-term prediction of future climate states is not possible."

Looking into further detail there are other interesting ways in which the so-called experts are unaware of unresolved discrepancies between models and observations regarding issues like warming in the tropical troposphere and overall climate sensitivity.

What can we take away from all this? First, lots of people get called "climate experts" and contribute to the appearance of consensus, without necessarily being knowledgeable about core issues. A consensus among the misinformed is not worth much.

Second, it is obvious that the "97 percent" mantra is untrue. The underlying issues are so complex it is ludicrous to expect unanimity. The near 50/50 split among AMS members on the role of greenhouse gases is a much more accurate picture of the situation. The phoney claim of a 97 percent consensus is mere political rhetoric aimed at stifling debate and intimidating people into silence.

The Canadian government has the unenviable task of defending the interest of the energy producers and consumers of a cold, thinly-populated country, in the face of furious, deafening global warming alarmism. Some of the worst of it is now emanating from the highest places. Barack Obama's website (barackobama.com) says "97 percent of climate scientists agree that climate change is real and man-made … Find the deniers near you—and call them out today." How nice. But what we really need to call out is the use of false propaganda and demagogy to derail factual debate and careful consideration of all facets of the most complex scientific and policy issue of our time. FI


ROSS McKITRICK

Ross McKitrick is a Professor of Economics at the University of Guelph and a Senior Fellow at the Fraser Institute.

Barbara Mitchell Centre
FOR IMPROVEMENT IN EDUCATION

Understanding the Foundation for Teachers' Strikes in Ontario

Deani Van Pelt and Jason Clemens

While much is being made about the "resolution" of the teachers' job action in Ontario, most of the discussion missed two fundamental aspects of the debate: school choice and unionization in the public sector. No long-term, lasting solution can be achieved if these two factors are ignored.

The ruling by the Ontario Labour Relations Board was a short-term fix. The issues remain. Both the elementary and secondary school teachers are restive and continued job action is likely. Labour strife among teachers, which affects parents and students across the province (roughly 70,000 secondary and 800,000 elementary students were affected in the last school year) is built into the system both because of a lack of school choice outside of the public education system and the degree of unionization within the public education system.

Most Ontarians are not aware of the comparatively unique way the province delivers education. For instance, Ontario is one of only three provinces in Canada that provide religious—largely Roman Catholic—education within the public system. The remaining seven provinces provide religious education using alternative methods, such as independent schools. Moreover, Ontario is also one of only two provinces that provide French Roman Catholic education in the public system. And unlike Quebec and all four western provinces, Ontario provides no support to parents who wish to have their children educated in independent schools.

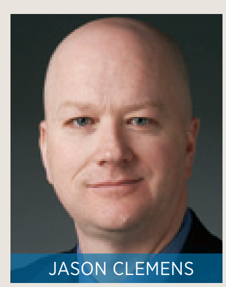
The long-term fix for Ontario's education system is a fundamental reform of how K-12 education is delivered with more emphasis on choice for parents and more competition.

Choice in education in Ontario occurs mainly through options available within the public education system and thus almost 95 percent of Ontario's K-12 students are enrolled in government schools. This stands in contrast to both British Columbia and Quebec where more than one in eight students attends an independent school. Such systems facilitate more competition between schools, particularly non-government schools, and greater education choices for parents, both of which contribute positively to a well-functioning, high-performing education system.

The comparatively higher unionization rates in the public education system are especially problematic given that almost all students in Ontario attend a public school. Specifically, 84.3 percent of teachers and professors in Ontario are unionized. (Unfortunately, Statistics Canada doesn't have a readily available narrow measure of teachers. However, teachers, both elementary and secondary, constitute the overwhelming share of professionals in this category.) By comparison, only 15.8 percent of teachers (and professors) in independent schools are unionized. The lack of choice outside of the public system coupled with the high unionization in the public system means that parents in Ontario have a much higher risk of disruption in their child's education than parents in provinces like British Columbia.

A watershed book by then UBC economics professor Sandra Christensen in 1980, *Unions and the Public Interest*, shed light on the tension between unions and the public sector. According to Christensen, an inherent conflict is created when governments assume the monopoly (or near monopoly) provision of a public good, such as education, at the same time that the government allows itself to be unionized. This combination of monopoly provision of services and unionization in areas like education means that if (perhaps when) strikes occur, parents have no alternatives. In other words, the unions enjoy the best of both worlds: the ability to strike and no real competition. This enormous benefit bestowed to unions comes at a cost—a lack of choice for parents and the real possibility of the disruption of educational services.

The long-term fix for Ontario's education system is not better collective agreements or simply more money, but rather a fundamental reform of how K-12 education is delivered, with more emphasis on choice for parents and more competition in the education sector. FI



Deani Van Pelt is the director of the Barbara Mitchell Centre for Improvement in Education. Jason Clemens is the executive vice-president of the Fraser Institute.

In Memorium
Michael R. Hopkins

Normally the Staff Profile section highlights one of our team members to help our donors and friends gain an insight into the Institute and its team. This edition of the Quarterly takes a slightly different approach by remembering a former member of our team who contributed so much to our culture, our success, and our sense of purpose. October 2015 marks the 10-year anniversary of the passing of the Institute's long-serving Director of Finance and Administration Michael Hopkins and we thought it worthwhile and deserving to recognize his passing.

In October 2005, the staff and trustees of the Fraser Institute lost a trusted colleague, tireless contributor, and good friend. Long time Secretary Treasurer and Director of Finance & Administration of the Fraser Institute, Michael Hopkins succumbed to the lymphoma with which he had struggled for more than a decade.

During the darkest days of his disease and up to a few days before he died, Michael Hopkins came in to the Institute. His presence in spite of his affliction set an example and a standard for conduct which none of us at the Institute will ever forget. He was a kind, gentle, warm man to the very end. His grit and determination not to permit his disease to dominate him—and of course his dedication to the Institute—were a gift and a legacy to us all.

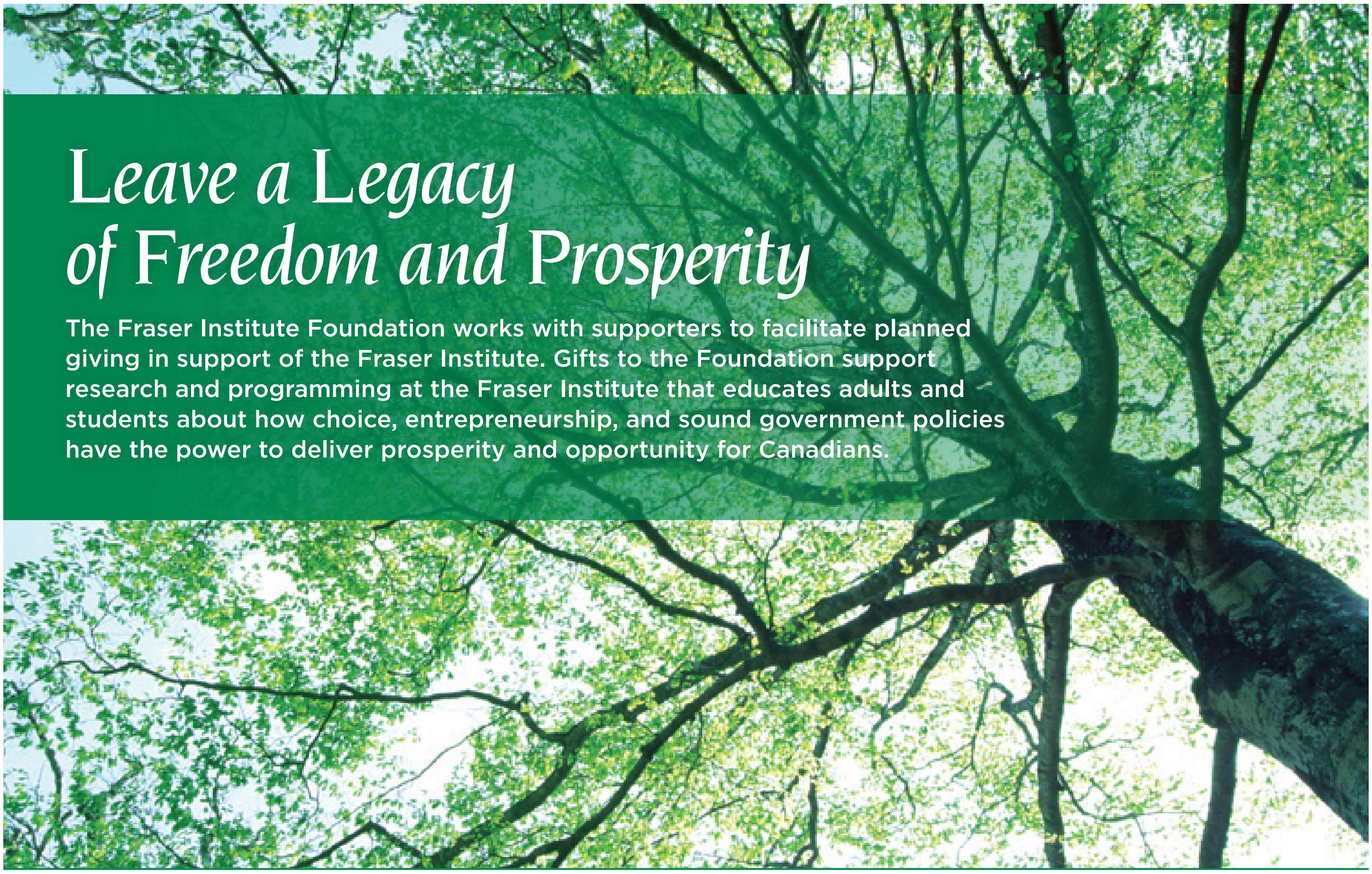
GONE BUT NOT FORGOTTEN

Michael R. Hopkins

January 11, 1956
to October 19, 2005

He is survived by his wife, Allison, and his sons James and Matthew.

Fraser Institute Foundation



Leave a Legacy of Freedom and Prosperity

The Fraser Institute Foundation works with supporters to facilitate planned giving in support of the Fraser Institute. Gifts to the Foundation support research and programming at the Fraser Institute that educates adults and students about how choice, entrepreneurship, and sound government policies have the power to deliver prosperity and opportunity for Canadians.

Recently the Fraser Institute Foundation was fortunate to receive two legacy gifts from long-time donors. Both gifts will be added to the funds maintained at the Foundation in support of the Fraser Institute's research and programming.

The Foundation was one of several beneficiaries of the estate of Dorothy Cotton and received an initial payment in 2015 of almost $200,000. An additional payment is expected next year with potential further amounts to be received when the estate is finalized. The funds provided by the Cotton estate will be earmarked to support Education Programs, and in particular our student seminar and outreach efforts.

The Foundation also received a gift of a little more than US$100,000 from the estate of Sherman and Clarissa Ewing. This gift will be added to funds earmarked for support of innovative, impactful research undertaken by the Institute that could not be financed through traditional means. Such funds are the foundation for the Institute's cutting edge, innovative work across a host of areas of government policy.

The Institute's research independence and ability to undertake cutting-edge research continues to be supported and expanded by legacy gifts received from long-time donors.

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Visit: **www.fraserlegacy.org**

For more information on the Fraser Institute Foundation, please email **development@fraserinstitute.org** or call **(604) 688-0221, x 548**. In addition, please feel free to contact either Niels Veldhuis, the President of the Institute, or Jason Clemens, the President of the Fraser Institute Foundation.