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FISCAL AND TAX COMPETITIVENESS

STAYING THE COURSE:

Quebec's Fiscal Balance Challenge

PIERRE FORTIN



In this issue...

In its upcoming budget, Quebec must clearly state that it is staying the course with its difficult Plan for restoring fiscal balance announced in the two previous budgets.

THE STUDY IN BRIEF

THE AUTHOR OF THIS ISSUE

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Rigorous external review of every major policy study, undertaken by academics and outside experts, helps ensure the quality, integrity and objectivity of the Institute's research. In 2009, following 10 years of balanced budgets, the Quebec government faced the sudden prospect of unsustainable structural deficits which, if left unchecked, would have reached a staggering \$12 billion in 2013, increasing to \$27 billion in 2019. This budgetary imbalance surfaced even though Quebec's economy performed relatively well for the last 20 years generally and amid the recent global crisis. To explain the budgetary slump, the author points instead to population aging, previous tax cuts, the multiplication of infrastructure investments, program spending growth, expected slowdown of federal transfers, and expected rising interest rates on the public debt.

The Quebec government reacted to the situation by announcing a Plan to restore budgetary balance by 2013/14. The author demonstrates that the Plan's tax hikes (\$4.3 billion), spending cuts (\$5.7 billion), and other measures (\$2.2 billion) could, technically, restore the sustainability of Quebec's finances. Also, these measures are in line with public support for fiscal balance and desire to reduce the size of government, while minimizing the impact on tax burdens and economic growth. However, carrying out the planned spending cuts will prove politically and administratively difficult.

The author believes the government should maintain its fiscal plan and stay the course on restoring budgetary balance by 2013/14, while launching vast healthcare reforms and promoting productivity growth by concentrating its interventions in education, access to foreign markets, competition, taxation, and public infrastructure.

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In the past two provincial budgets, the financial outlook for Quebec Lhas taken a turn for the worse. In March 2009, Quebec Finance Minister Monique Jérôme-Forget presented her last Budget (Finances Québec 2009). That document revealed that unless revenue and expenses were seriously adjusted, the Quebec government was headed for a budgetary deficit of \$10 billion in 2013/2014. A year later, in March 2010, the 2010/2011 Budget presented by her successor Raymond Bachand confirmed and expanded on this diagnosis. He calculated that, if no changes were made, the deficit would exceed \$12 billion in 2013/2014 (Finances Québec 2010a). The December 2010 Economic and Financial Update confirmed this projection (Finances Québec 2010b).

By revealing that Quebec was headed towards this financial impasse, ministers Jérôme-Forget and Bachand surprised everyone because the Quebec government had, since 1998, managed to comply with the *Balanced Budget Act* of1996, prohibiting it from running up deficits. From 1998/1999 to 2008/2009, Quebec had shown an average budgetary surplus of \$54 million (Finances Québec 2010a, table I.11). This success was confirmed by a progressive rise in its standing with credit rating agencies (Finances Québec 2010a, section D.4). Quebec was still the

Canadian province with the highest debt-GDP ratio, but its financial situation was constantly improving. Since then, however, the budget outlook has taken a decided turn for the worse.

Without Corrective Measures, the Deficit could Reach \$27 Billion in 2019/2020.

Table 1 reproduces and extends Minister Bachand's projection of what would happen in the absence of corrective measures. The starting point is 2007/2008, the year of the cyclical peak. It is followed by the year of the recession, 2009/2010, then by the year 2013-2014, in which the deficit was expected to exceed \$12 billion if nothing was done to redress the situation. In order to see beyond this, I have extended the horizon until the end of the current decade. This makes it possible to ascertain that, in the absence of corrective measures, a budgetary deficit of \$27 billion would emerge in 2019/2020. On that date, interest costs on the debt would absorb 29 percent of the government's own-source revenue, the budgetary balance would equal 6 percent of GDP, the debt representing accumulated deficits would reach 60 percent of GDP, and the gross debt would be 85 percent of GDP.

The path followed would be explosive and unsustainable financially. The "if the trend is maintained" type projection set out in Table 1 sees total revenue grow less rapidly than GDP, and the latter less rapidly than total expenditures from 2007 to 2019. Over this 12-year period, GDP increases by 50 percent, budgetary revenues by 40 percent and budgetary spending by 90 percent. On this basis, the budgetary deficit continually increases as a proportion of GDP.

I have two objectives in the following analysis. The first is to determine the causes of Quebec's current budgetary difficulties. I raise three

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I would like to express my sincere gratitude to the members of the C.D. Howe Institute's Fiscal and Tax Competitiveness Council and the Institute's staff (especially Alexandre Laurin), as well as Kevin Page and his team, and the two very perceptive anonymous readers for their comments and suggestions in preparing this study.

¹ In the sense of Liapounov (1892).

Table 1: The Outlook: Actual Data from the Quebec Budget for the 2007/2008 and 2009/2010 Fiscal Years, and Forecasts for the 2013/2014 and 2019/2020 Years in the Absence of Corrective Measures Applied to Income Trends and Government Spending

ltem	2007/2008 (Real)	2009/2010 (Real)	2013/2014 (Forecast)	2019/2020 (Forecast)
	(\$ Millions)			
Own-source Revenues	49,464	47,994	55,457	68,599
Federal Transfers	13,629	15,161	15,784	20,462
Program Spending	-54,826	-61,769	-73,695	-97,635
Debt Interest	-7,021	-6,117	-10,717	-19,597
Other Items	-797	2,092	852	1,047
Budgetary Balance	449	-2,449	-12,319	-27,117
Accumulated Deficits	97,125	107,617	144,334	264,955
Gross Debt	148,151	163,318	225,320	377,011
GDP	295,928	303,747	357,738	442,517
Interest/Own-source Revenue	14.2%	12.7%	19.3 %	28.6 %
Budgetary Balance/GDP	0.2%	-0.8%	-3.4 %	-6.1 %
Accumulated Deficits/GDP	32.8%	35.4%	40.3 %	59.9 %
Gross Debt/GDP	50.1%	53.9%	63.0 %	85.2 %

Note: The data presented in the first two columns of the table describe the real situation with respect to the economy and budget in 2007/2008 and 2009/2010. The data in the third column indicate what the government's financial situation would be in 2013/2014 if no corrective measures were applied to the current trend. These data are extracted from Finances Québec budgetary documents and are in line with the following hypotheses: 1) after 2009/2010, own-source revenue follows the annual GDP growth and the bases established by the Ministry without any further change to the fiscal rules other than those already announced (such as eliminating the capital tax in 2011); 2) federal transfers are in line with the parameters established until 2014/2015; 3) program spending increases by 4.6 percent per year, i.e., at a slower rate than the average 5 percent recorded from 2002/2003 to 2009/2010; 4) interest expenses are paid according to the anticipated change in the average interest rate on the government's gross debt; interest rates increase from 3.8 percent in 2009/2010 to 4.9 percent in 2013/2014, and the gross debt accumulates annual budgetary deficits, net investments stemming from the government's capital plan (health and education establishments included) and its investments, loans and advances to various bodies; 5) the "other budget items" reproduce the Ministry's forecast; they include the net results of agencies that are not budget-related, special funds and networks, and subtract the provision for contingencies and the change in the stabilization reserve. The budgetary balance is the algebraic sum of all of the preceding items. A negative sum is the amount added to the debt representing accumulated deficits at the end of each fiscal year. In the fourth column, the Finances Québec forecast without corrective measures is extended beyond 2013/2104 to the end of this decade. The following hypotheses are applied: 1) GDP is in line with the Finances Québec forecast until 2014, at which time it is expected to reach its potential, then it pursues its growth at the potential rate until 2019, set at 3.5 percent per year (2 percent inflation included); 2) own-source revenue growth reproduces GDP growth each year; 3) federal transfers are in line with the Finances Québec forecast until 2014/2015, following which they increase at a constant annual rate of 4.5 percent, chosen simply to reflect average Canadian GDP growth from 2014 to 2019 (forecast from Dungan and Murphy) and, therefore, the federal government's ability to pay; 4) program spending increases by 4.8 percent per year, i.e., at a rate that remains slower than the average 5 percent recorded from 2002/2003 to 2009/2010; 5) the average interest rate on the gross debt increases from 4.9 percent in 2014/2015 to 5.4 percent in 2019/2020, and the gross debt accumulates annual budgetary deficits and enables the government to complete its investment plan; and 6) the "other items" progress at the same rate as GDP, i.e., 3.5 percent per year.

Sources: Finances Québec (2009, 2010a, 2010b); Dungan and Murphy (2011); author's calculations.

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possibilities. The first would be the 2008/2009 recession that hit Quebec, as it did all other regions of Canada and the world. The second would be the long-term economic performance of Ouebec, which could have deteriorated over the course of the past decades. The third would be the imminent aging of the population, which will hit both the revenue and expenditure sides of Quebec's public finances harder than other regions of North America. I will show that the first two explanations do not hold water, but that the third - an aging population - is a real cause of the difficulties encountered, but not the only one. There is no single cause for the worsening financial situation; it is rather the result of several factors, some directly influenced by the government and others beyond its control.

The second objective is to determine whether this budgetary impasse can be resolved by a set of administratively and politically sustainable measures. I will argue that the Plan for a Return to Fiscal Balance presented by Ministers Jérôme-Forget and Bachand is a painful, but necessary response under the circumstances. However, although *in principle* this response enables Quebec public finances to become sustainable once again, in order for this to be also the case *in practice*, it must become an administrative and political reality and the government must stay the course. This will be more difficult.

Cyclical or Structural Causes?

The Quebec Economy Actually Came Out of the 2008/2009 Recession Quite Well

To begin, Figure 1 shows that the Quebec economy got through the 2008/2009 recession better, and has had a stronger recovery since then, than the rest of North America. Between late

2007 and the middle of 2009, the employment rate dropped less in Quebec than in the other provinces and the United States.² Since then, the employment rate has recovered half of its loss in Quebec, and about 10 percent elsewhere in Canada. In the United States, the employment rate has not moved since October 2009.

In March 2009, the Quebec government calculated that the recession would generate a \$2.4 billion revenue loss in 2009/2010 (Finances Québec 2009, table C.4). Then, in March 2010, it estimated that in 2013/2014 GDP would still be 2.4 percent lower than its potential (Finances Québec 2010a, graph B.20) and that, if so, a cyclical deficit of \$1.4 billion would remain on that date. The slow pace of return to potential anticipated by the ministry may be too pessimistic. But even if its forecast is realized, this \$1.4 billion cyclical loss of revenues would only represent 11 percent of the \$12 billion budgetary deficit forecast for 2013/2014. The inevitable conclusion is that most of the government's financial problem is structural.

The Quebec Economy's Performance has not Deteriorated in 20 Years.

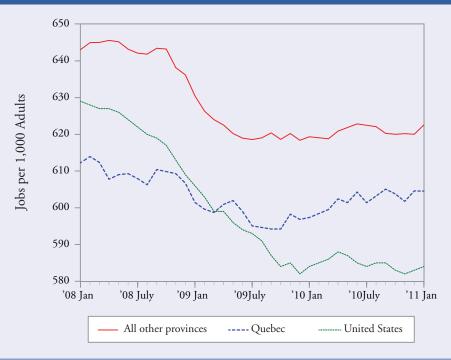
Therefore, we are forced to consider the structural causes of the problem. Could it be that the relative performance of Quebec's economy has suffered a long-term deterioration and that the provincial government's sudden financial difficulties reflect this deterioration? The trends of the last two decades do not lend credence to this conjecture. It is well established that, in *absolute* terms, the per capita real domestic income³ of Quebec, like that of the six other non-hydrocarbon producing Canadian provinces, is quite far from first place in North America. But as shown in Figure 2, between the cyclical peaks of 1989 and of 2007 the province's comparative performance was better

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² The 2008/2009 recession is the shallowest Quebec has experienced in the post-war period. During the 1981/1982 and 1990/1992 recessions, the unemployment rate reached monthly peaks of 15.8 percent and 14.3 percent, respectively. In 2008/2009, the maximum reached was 9 percent. At 7.9 percent in January 2011, the unemployment rate was only 1 point above the minimum for the past 35 years.

³ Real domestic income is equal to the ratio between nominal GDP and the final domestic demand price index. This is an estimate of the buying power that GDP represents for the residents of a country or region.

Figure 1: Employment Rate of the Working-age Labour Force in Quebec, Other Provinces and the United States, January 2008 to January 2011



Sources: Statistics Canada, U.S. Bureau of Labor Statistics.

than that of these six other provinces. It was also close to the US performance from 1998 to 2009, after straying from it between 1989 and 1998. The figure also confirms that the rise in oil and natural gas prices increased per capita income of the three Canadian hydrocarbon producing provinces to a level completely out of reach of the rest of the continent's economy.

Figures 1 and 2 clearly show that the budgetary difficulties announced by Jérôme-Forget and Bachand do not stem from a comparative weakening of Quebec's overall economic performance over the course of the last three years or last two decades. Quebec's relative position has actually improved over that past period.

Starting Now, Demographic Aging is Going to Change Things

Concern over Quebec's economic performance is actually related to the future rather than the past. Starting in this decade, the aging of Quebec's population will suddenly bring the population

aged 15 to 64 (the main pool of potential workers) to decrease and at the same time will accelerate growth of the population aged 65 and older.

Table 2 sets out these trends. First, we observe that after increasing by 7 percent between 2000 and 2010, the Quebec population aged 15 to 64 will decrease by 1 percent from 2010 to 2020, and by an additional 2 over the following decade. Second, growth in the population aged 65 and over will, on the contrary, accelerate significantly. This population of seniors increased by 28 percent from 2000 to 2010. It will increase by 40 percent in the current decade, and by another 32 percent in the 2020s. In 2010, there were 4.5 people aged 15 to 64 for each person aged 65 and older. The ratio will be 3.2 in 2020, and 2.4 in 2030.

These changes will have inevitable consequences. One is that the number of Quebecers at work will increase more slowly starting now and over the next two decades. A higher proportion of the population aged 15 to 64 will undoubtedly want to be part of the workforce, but there is no question that the

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Hydrocarbon or Non-Hydrocarbon Producing Provinces, 1989 to 2009 (1989 Index = 100) 200 180 160 140 120 100 '04 92 '98 '00 02 '06 '08 NL+SK+AB US QC PE+NS+NB+ON+MB+BC

Figure 2: Per Capita Real Domestic Income in the United States, Quebec and in the Other Canadian

Sources: Statistics Canada, U.S. Department of Commerce.

negative demographic shock to the working-age population will overwhelm the increase in its participation rate. Unless there is a significant acceleration in productivity during that period, this means that gross domestic income and tax revenues will also grow less quickly.

At what pace will Quebec's GDP grow in this decade? The answer to this question depends not only on changes in the population aged 15 to 64, but also on other factors: the percentage of this population that will participate in the workforce; the annual number of hours each active person will work; and the volume of production that will be generated by each hour of work. There is great uncertainty surrounding the future evolution of these three factors. To sharpen the focus, I will use the following assumptions: 1) real GDP is at its

potential level in 2007, returns to it in 2014, and then remains there until 2019; 2) potential real GDP grows by 1.75 percent each year from 2007 to 2014, and by 1.5 percent each year from 2014 to 2019; 3) real GDP and the general price level conform to Finances Québec's forecast (2010b, table 12) from 2010 to 2014; and 4) the inflation rate is 2 percent from 2014 to 2019.

These assumptions are neither the most optimistic nor the most pessimistic in use and are aimed at avoiding extremes.4 One implication is that the path followed by potential GDP is lower than if it were to continue to grow at the same average annual rate of 2.1 percent as from 1989 to 2007 (and as from 1999 to 2007). As a result, potential GDP is reduced cumulatively by 2.1 percent in 2013 and by 5.3 percent in 2019. Since

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Finances Québec (2005) proposed an estimate of 1.4 percent for the growth rate of potential GDP from 2010 to 2020; Godbout et al. (2007), 1.2 percent for 2011 to 2021; Desjardins Études économiques (2009), 1.7 percent for 2009 to 2014, and 1.5 percent for 2014 to 2019; Finances Québec (2010a, table B.15), 1.4 percent for 2021 to 2025. The hypothesis retained here is close to that of Desjardins.

Table 2: Change in Populations Aged 15 to 64 and 65 and Over in Quebec, 2000 to 2030

Year	Population	Ratio	
	15 to 64 years	65 years and over	Pop. 15-64/Pop. 65 +
2000 (Real)	93	78	5.4
2010 (Real)	100	100	4.5
2020 (Forecast)	99	140	3.2
2030 (Forecast)	96	184	2.4

Note: Statistics Canada (2011, table 051-0001); Institut de la statistique du Québec (2010).

the level of own-source revenue is affected proportionately, it will be reduced by \$1.2 billion in 2013/2014 and by \$3.8 billion in 2019/2020.5 Another implication is that the level of actual GDP forecast by the ministry for 2013/2014 is 0.3 percent lower than the potential level I have just assumed, which means a cyclical shortfall of \$200 million in own-source revenue. By assumption, cyclical conditions will no longer have any effect on income afterwards.

Another consequence of the aging demographic structure is that the financial pressure on program spending, which is already strong, will be even greater. This results from the fact that public healthcare spending is on average six times greater per person aged 65 and older than per person under 65 years of age. Given that aging usually goes hand-in-hand with a drop in the demographic weighting of children and adolescents, one would be inclined to think that the provincial government would be able to save on daycare and education services. This is an unjustified assumption. Given the recent rise in the province's birth rate, the Institut de la

statistique du Québec (2010) anticipates only a small drop in the weight of the under 18 population, i.e., from 19.3 percent of total population in 2010 to 18.8 percent in 2019. As well, there is strong pressure in Quebec, as in other provinces, to promote enrolment in university education and to curb dropout rates. This pressure could quickly absorb any fiscal flexibility that demographic change could offer to the education system.

So, what is the estimated overall effect of an aging population on the budgetary balance forecast in Table 1? To have an idea, I make two observations. First, if starting in 2010 the population of 15-64 year olds were to continue to increase at the same rate as between 2000 and 2010 rather than slow down as anticipated, it would exceed the baseline demographic projection by 1.6 percent in 2013 and 7.1 percent in 2019.7 All things being equal, this means that the government's own-source revenue would be \$900 million higher in 2013/2014, and \$4.9 billion higher in 2019/2010, than indicated in Table 1. Second, with respect to spending, I estimate that

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⁵ Namely: 1.2 = 55.5*(1/(1 - 0.021) - 1) and 3.8 = 68.6*(1/(1 - 0.053) - 1).

According to the Canadian Institute for Health Information (2010, table E.1.11), the Quebec government's per capita healthcare spending in 2007 was \$10,451 for persons aged 65 and over and \$1,730 for those under 65, so that spending for seniors was 10,451/1,730 = 6.0 times greater.

⁷ This statement stems from the following two considerations. On the one hand, the Quebec population of 15-64 year olds increased by 7.2 percent from 2000 to 2010 (Statistics Canada 2011, table 051-0001). On the other hand, the reference scenario from the Institut de la statistique du Québec (2010) for this group anticipates a cumulative growth of 0.5 percent from 2010 to 2013 and cumulative decrease of 1.1 percent from 2013 to 2019.

the aging process starting in 2010 would increase the government's annual healthcare spending cumulatively by about \$1.3 billion 2013/2014 and \$5.1 billion in 2019/2020.8 In total, these estimated impacts of aging on revenue and spending will have a combined negative effect on the budgetary balance of about \$2.2 billion in 2013/2014 and \$10 billion in 2019/2020.

Demographic aging significantly changes the outlook. It explains a large part – but not all – of the slowdown in own-source revenue and increase in public healthcare spending that will affect provincial public finances in this decade. I now turn to the other causes of the slowdown in own-source revenue and federal transfers, and of the rapid expansion of total program spending and debt servicing.

The Other Sources of Budgetary Difficulties

Beginning with own-source revenue, an absolute drop of \$1.5 billion from 2007/2008 to 2009/2010 is first reported in Table1, whereas one would have expected an increase of about \$3.5 billion in times of normal economic growth if fiscal parameters had remained unchanged. The projected \$48 billion in Table 1 for own-source revenue in 2009/2010 is therefore \$5 billion less than one would have normally expected. Given

that the impact of the recession on own-source revenue was estimated at \$2.4 billion in 2009/2010 (Finances Québec 2009, table C.4), an explanation is still needed for the residual \$2.6 billion drop. According to the information in the 2009/2010 Budget, this drop is due to a set of tax cuts previously voted on, and in particular a significant personal income tax break and the progressive elimination of the capital tax (Finances Québec 2009, table C.8). The ensuing growth then causes the value of these tax cuts to increase over time. They can be evaluated at about \$4.1 billion four years later, in 2013/2014, and \$5.1 billion 10 years later, in 2019/2020. 10

Unstable Federal Transfers: Federal transfers are mainly comprised of the Canada Health Transfer, the Canada Social Transfer and the Equalization Program. The eye-catching characteristic of these transfers is the pattern of instability: a strong increase from 1961 to 1984, a sudden drop from 1984 to 2004, an increase from 2004 to 2009, a new slowdown anticipated from 2009 to 2013, and a resumption expected afterwards.

The data in Table 1 forecast rather weak growth in transfers (1 percent per year) from 2009/2010 to 2013/2014. This results from the good comparative performance of Quebec during the 2008/2009 recession, the termination of federal-provincial agreements, and the ceiling to be imposed by the federal government on the growth

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The Institut de la statistique du Québec (2010) estimates that the demographic weight of the 65 and over population will increase from 15.3 percent in 2010 to 16.7 percent in 2013, then to 19.6 percent in 2019. With per capita public healthcare spending that is six times greater for seniors than for younger individuals, the cumulative effect of this aging on public healthcare spending for the entire population will be (6*0,167 + 0.833)/(6*0,153 + 0.847) – 1 = 4.0 percent in 2013 and (6*0,196 + 0.804)/(6*0.153 + 0.847) – 1 = 12.2 percent in 2019. Assuming that healthcare spending tends to increase by 4.5 percent per year before taking aging into account, the budget credits of the Quebec Ministry of Health and Social Services, which are \$28 billion in 2010/2011, would increase to \$31.9 billion (= 28.0*1.045³) in 2013/2014 and \$41.6 billion (= 28.0*1.045°) in 2019/2020. Aging would therefore cumulatively add \$1.3 billion (= 31.9*0.040) and \$5.1 billion (= 41.6*0.122) in these two years, respectively. This impact calculation, based solely on two age groups (0-64 and 65 and over) simplifies reality only for presentation purposes. A detailed impact calculation based on per capita healthcare spending for a large number of age and gender groups basically leads to the same results.

What I mean by "normal" growth here is annual own-source revenue growth equal to a nominal GDP growth rate of 3.5 percent, which was forecast for 2008 in the 2007-2008 Budget, and again for 2009 in the 2008/2009 Budget (Finances Québec 2007, table B.30; 2008, table B.5). At the time, the significance of the coming recession had not yet been assessed.

¹⁰ Without the \$2.6 billion in tax cuts in 2009/2010, own-source revenue would have been \$50.6 billion instead of \$48 billion that year. If the same growth rate as nominal GDP from 2009 to 2013 is applied to these \$50.6 billion, we find that own-source revenue would have been \$59.6 billion in 2013/2014 (= 50.6 x 357.7/303.7), which exceeds by \$4.1 billion the \$55.5 billion entered in Table 1. The same method applied to 2019/2020 indicates that, without the tax cuts, own-source revenue would have been \$73.7 billion (= 50.6 x 442.5/303.7), which is \$5.1 billion more than the \$68.6 billion entered in Table 1.

rate of equalization payments. There is no agreed-upon criterion for defining a counterfactual for the growth of federal transfers to Quebec from 2009/2010 to 2019/2020. For the purposes of analysis, I use as a benchmark the percentage of Quebec's GDP these transfers represented in 2009/2010, namely 5 percent. The federal transfers projected in Table 1 for 2013/2014 and 2019/2020 are, respectively, \$2.1 billion and \$1.7 billion less than levels corresponding to this benchmark.¹¹

Debt Servicing Costs: On the expenditure side, in Table 1, the behaviour of interest charges on the debt after 2009/2010 appears surprising at first sight. They begin by decreasing by 13 percent in the first two years, going down from \$7.0 billion in 2007/2008 to \$6.1 billion in 2009/2010. But then they triple in 10 years, climbing to \$19.6 billion in 2019/2020. To gain a clear perspective, it should be recalled that "servicing the debt" consists of paying an average interest rate on the gross debt, which is in turn equal to the sum of the debt representing past accumulated budgetary deficits and the non-budgetary debt taken out to make investments. The latter is comprised mainly of the government's net fixed capital formation (the depreciation expense being part of program spending), net fixed capital formation by health, social services and education establishments, and government investments, loans and advances. In other words, we have:

Debt servicing = Average interest rate X (accumulated deficits + net accumulated investments)

Debt servicing changes from one year to the next are due, by definition, to combined changes in these three elements: average interest rate, debt representing accumulated deficits and debt taken out to finance investments. The budgetary data indicate that the average interest rate on the gross debt decreased from 4.8 percent in 2007/2008 to 3.8 percent in 2009/2010 – a 20 percent drop – which explains that interest expenses decreased between these two years despite the increase in gross debt.12 The calculations made in Table 1 then assume that the average interest rate on gross debt will increase significantly, to 4.9 percent in 2013/2014, and then 5.4 percent in 2019/2020. The impact on debt servicing is significant. In 2013/2014, should the average interest rate suddenly drop to 3.8 percent instead of settling at 4.9 percent as projected, the government would save \$2.5 billion in interest expenses. A similar occurrence in 2019/2020 would result in savings of \$5.8 billion.13

The second element of the equation, debt representing accumulated deficits, is a major contributor to debt servicing expansion, since the projected level for 2019/2020 is two and a half times higher than for 2009/2010 (\$265 billion versus \$107.6 billion). It cannot, however, be seen as an independent cause for the change in budgetary deficits since it is the result of these deficits.

The third element, debt used to finance net investments, doubles in 10 years: from \$55.7 billion in 2009/2010 to \$81 billion in 2013/2014, then to \$112.1 billion in 2019/2020. From 18.3 percent of GDP in 2009/2010, it increases to 22.6 percent in 2013/2014 and to 25.3 percent in 2019/2020. Unlike debt representing accumulated deficits, this component of debt is non-budgetary in nature and can be considered an outside cause

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¹¹ Since 357.7*0.05 - 15.8 = 2.1 and 442.5*0.05 - 20.5 = 1.7.

¹² For a given financial year, the average interest rate paid on the gross debt is estimated by dividing the interest expenses for the fiscal year by the average gross debt level during the year, defined as the simple mean of the gross debt levels at the beginning and end of the year.

¹³ Since 2.5 = 10.7*(1 - 3.8/4.9) and 5.8 = 19.6*(1 - 3.8/5.4).

¹⁴ The ministry has presented a separate forecast until 2014//2015 for the debt taken out to finance net investments. Afterwards, the forecast is mine. For the specific years represented in Table 1, it can be obtained simply by subtracting the debt representing accumulated deficits from the gross debt.

of debt servicing and the structural deficit. From 2009 to 2014, the government will have spent \$43 billion on a major plan to invest in public infrastructures, in order to make up for long-overdue maintenance, and support the economy during the economic downturn (Finances Québec 2010a, graph C.5) The decision to go ahead with this plan leads to an acceleration of both the depreciation expense included in government program spending and of the debt incurred to finance investments. If the growth rate of this debt had been the same as that of GDP from 2009 to 2019, debt servicing would have been smaller by \$800 million in 2013/2014 and \$1.7 billion in 2019/2020.15

Surging Program Spending: Although the projection in Table 1 has debt servicing increase rapidly over the projection period, it is the surge in program spending that is the main source of budgetary expenditure growth during that period, given that it constitutes nearly 90 percent of total expenditures. In order to evaluate the consequences of this surge, the projection imposes an annual average rate of increase in program spending of 4.6 percent from 2009/2010 to 2013/2014 and of 4.8 percent from 2013/2014 to 2019/2020. These growth rates are under the 5 percent observed on average in Quebec from 2002/2003 to 2009/2010, which was in turn one of the lowest among all provinces during the same period (Finances Québec 2010a, graph E.5).

Despite all this, growth rates of 4.6 percent to 4.8 percent pose a problem because they are still higher than the annual average growth rate of 3.4 percent projected for nominal GDP over the period from 2007 to 2019. If program spending were to grow at this 3.4 percent rate (rather than 4.6 percent to 4.8 percent) for 10 years starting in 2009/2010, it would come to \$70.4 billion in 2013/2014 and \$86.1 billion in 2019/2020. That's \$3.3 billion less than projected for 2013/2014 and \$11.5 billion less for 2019/2020. These gaps are large.

Like elsewhere in Canada, the health and social services sector exerts the greatest pressure on the growth of program spending in Quebec. Expenditures in this area have increased by 6.1 percent per year on average from 2002/2003 to 2009/2010 and currently take up 45 percent of all program spending (Quebec Treasury Board 2010). Spending has also increased quickly during that period in two smaller sectors: transportation (8.6 percent per year) due to maintenance work on the road system, and family (7.1 percent per year) due to rapid expansion in the number of low-fee daycare spots. Spending has increased more modestly in education (3.8 percent) and in other government functions (2.8 percent).

The same sources of pressure on spending will remain in the future. Accelerated aging over the next two decades will add to the pressure on health and social services spending. Investments in the road system and urban transit will go on for several years. The demand for daycare services, still not entirely met, will grow with the recent increase in the birth rate and women's labour force participation rate. As well, the education sector will make insistent demands for funding, particularly at the university level and in favour of the elementary and high school student population with special learning problems. In the long run, it too should follow the increased birth rate.

Projecting program spending at annual rates of 4.6 percent to 4.8 percent for the period from 2009/2010 to 2019/2020 reveals not only one, but two major budgetary issues. The first is that the overall increase in spending is too high given the 3.4 percent baseline growth rate of government revenues. The second problem is that, within a globally restricted financial framework, accelerated spending in the health and social services sector will tend to crowd out spending in other sectors. Only faster increase in public sector productivity, an expanded role for the private sector in health and social services, or an unprecedented increase of the tax burden could prevent this from occurring.

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¹⁵ Since 0.8 = (0.226 - 0.183)*357.7*0.049 and 1.7 = (0.253 - 0.183)*442.5*0.054.

Does Quebec Suffer from a Systematic Bias towards Deficits?

Table 3 sets out a summary of the government's budgetary difficulties reviewed above. The preceding analysis has identified seven negative impacts on the budgetary balance. Four of them are beyond the control of the Quebec government. These are:

- 1) poor current economic conditions;
- 2) incipient downturn in trend economic growth;
- 3) withdrawal of federal transfers, and
- 4) expected return of higher interest rates.

The three other impacts stem from the government's own decisions. These are:

- 1) tax cuts prior to 2009/2010;
- 2) rapid growth in program spending, and
- 3) pace of infrastructure investment.

Altogether, these seven impacts total \$14.2 billion in 2013/2014 and \$29.6 billion in 2019/2020. Without them, the budget would have shown a surplus of \$1.9 billion instead of a deficit of \$12.3 billion in 2013/2014, and another surplus of \$2.5 billion instead of a deficit of \$27.1 billion in 2019/2020.

The results shown in Table 3 indicate that, in mid-2008, the Quebec government could conclude that it had the flexibility of a \$2 billion surplus at the end of its five-year budget planning horizon in 2013/2014. However, other factors intervened: the large tax cuts announced in the 2007/2008 Budget came into effect, the infrastructure plan took off, and interest rates, which had decreased significantly since mid-2007, were expected to increase sooner or later. These three changes absorbed the entire previous flexibility of the 2009/2010 Budget.

At the same time, government circles were well aware that real economic growth would progressively decrease to 1.5 percent per year or less due, in particular, to an aging population. ¹⁶ In this context, a nominal growth rate of 4.5 percent

or more in program spending, as seen in previous years, would become unsustainable, even if it was already lower than growth rates seen in all other provinces except British Colombia. As Robson (2010) cautioned, there was always the temptation to listen to suggestions not to worry about increased spending in programs because demographic change only happens slowly, like a glacier. The problem, as we saw in Table 2, is that the aging glacier is almost on us now. To top it off, in the fall of 2008 and winter of 2009, the financial crisis in the United States and the global recession suddenly occurred. Based on the estimates in Table 3, it is easy to imagine how, in the space of only a few months, the \$2 billion surplus that was initially forecast for 2013/2014 became a deficit of over \$10 billion.

Does this sudden about-face in the budgetary balance reveal a systematic bias in favour of deficit financing that would be more pronounced in Quebec than elsewhere in Canada? The fact that the accumulated level of public debt is higher in Quebec than in the other provinces (Finances Québec 2010a, graph D.5) could lead us to believe this. However, if there ever was such a bias, it would seem to be a phenomenon of the past. Quebec public opinion on deficits and public debt reached a turning point during the 1995/1996 financial crisis. Whatever the general feeling before 1996, the goal of fiscal balance and the Balanced Budget Act of 1996 were widely supported and remain so. In September 2009, for example, when asked if they were concerned about the prospect of a deficit budget, 70 percent of Quebec respondents answered in the affirmative (Léger Marketing 2009). Strict compliance with the Balanced Budget Act by successive provincial governments from 1998/1999 to 2008/2009 reflected that opinion.

The origin of the current financial difficulties, described in previous sections and summarized in Table 3, actually gives the impression of conservative budget management that was short-circuited by events rather than a congenital or

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¹⁶ The Finances Québec (2005) study mentioned above anticipated an annual real GDP growth rate of 1.4 percent for 2010-2020.

Table 3: Summary of Sources of Budgetary Difficulties for the Quebec Government, Forecasts for 2013/2014 and 2019/2020

Source of Difficulty and Effects on the Budget	Controlled	2013/2014	2019/2020	
	(\$ Billions)			
Effects on Own-source Revenue				
- Cyclical Loss of Revenues	No	-0.2	0.0	
-Tax Cuts Prior to 2009-2010	Yes	-4.1	-5.1	
- Underlying Slowdown in Growth Including an Aging Population	No	-1.2 -0.9	-3.8 -4.9	
Effect on Federal Transfers				
- Reduced Below 5% of GDP	No	-2.1	-1.7	
Effect on Program Spending				
- Growth at 4.7% Per Year Instead of 3.4% Including an Aging Population	Yes	-3.3 -1.3	-11.5 -5.1	
Effect on Debt Servicing				
- Increase in Interest Rates	No	-2.5	-5.8	
- Accelerated Investments	Yes	-0.8	-1.7	
Total Effect on the Budgetary Balance		-14.2	-29.6	

Note: Author's calculations (see explanations in text).

cultural appetite for debt. The tax cuts prior to 2009/2010 came at a time of rather comfortable financial flexibility. The infrastructure plan launched in 2007 had become essential because of the advanced state of dereliction of the road system, which was placing human lives in danger. Restrictions on program spending growth were perhaps still insufficient, but, as we have seen, control over spending was even more lax in other provinces. Finally, the other sources of the 2009/2010 budgetary reversal, namely the financial crisis and the recession, the slowdown in federal transfers and the prospect of interest rate increases, formed a set of unfortunate contingencies over which the government could exercise little control.

The Proposed Plan for Restoring Fiscal Balance

The government's response to its deteriorating finances is contained in the Plan for Restoring Fiscal Balance first presented by the 2009/2010 Budget of Minister Jérôme-Forget and, in an expanded version, by the 2010/2011 Budget of Minister Bachand. The Plan consisted of announcing measures for own-source revenue and program spending spread over four years to restore fiscal balance in 2013/2014. This targeted date for restoring balance is one year later than in Alberta, the same as in British Colombia, and sooner than the dates set by the governments of Canada (2014/2015) and of Ontario (2017/2018).

This decision was recently criticized by a coalition of Quebec labour unions called *Alliance*

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sociale, which fears that restoring fiscal balance in 2013/2014 is premature and will plunge Quebec back into crisis (Alliance sociale 2011). The Alliance's humanitarian motivation is commendable, but there does not appear to be much ground for its fears for three reasons. The first is that the 2008/2009 recession is the least pronounced in modern Quebec history, that it hit the province less hard than the rest of North America and Europe, and that the recovery is well underway. Support from government budgets when the economy is in distress is highly advisable, but there is no current distress in Quebec.

The second reason is that the accumulated debt-GDP ratio in Quebec is the highest among Canadian provinces and, therefore, one that should not be treated lightly. The third reason is that, save in the event of a force majeure, postponing the return to fiscal balance would only worsen the financial impasse. The real choice facing Quebec is to immediately address a \$12 billion deficit or to face one that is going to be twice the size in five years. The choice is not between good or bad, but between bad or worse. The reason why Quebec sustained a serious budgetary crisis in 1996, for example, is precisely because the interventions required since 1993 had been put off. This historic event showed that, save in an obvious situation of economic crisis, budgetary procrastination is a poor choice.

Table 4 summarizes the content of both versions of the plan for restoring fiscal balance. Four characteristics stand out. First, the Plan does not take half measures. Not only is fiscal balance restored in 2013/2014, but, at least as designed, the Plan resolves the difficulties anticipated until 2019/2020. Once the Plan's measures are incorporated in the budget, Finances Québec (2010b, table A.16) forecasts own-source revenue at \$60.2 billion and program spending at \$67 billion in 2013/2014. If the last billion dollars in yet undetermined measures is equally divided between increased own-source revenue and decreased program spending, and if, afterwards, own-source revenue increases in proportion to GDP, program spending increases at the average

rate of 3.4 percent per year, and federal transfers and "other elements" of the budget follow the paths set out in Table 1, then the budget balance will show a \$3.2 billion surplus in 2019/2020. In that year, debt servicing would absorb 15 percent of own-source revenue, the debt representing accumulated deficits would decrease to 23 percent of GDP, and the gross debt would be 48 percent of GDP.

Second, the intention expressed by the Plan is to concentrate intervention mostly on budgetary cuts (47 percent) and on tighter control of tax evasion (10 percent), rather than on increasing the tax burden for honest citizens (35 percent). In its most recent version, the Plan aims at reducing the rate of increase in program spending to 2.1 percent over the three years 2011/2012, 2012/2013 and 2013/2014 (Finances Québec 2010b, table 34).

Third, planned tax and tariff increases (\$4.3 billion), although major, are about of the same order of magnitude as the tax cuts granted prior to 2009/2010, which are estimated at \$4.1 billion in Table 3. These tax hikes will therefore result in restoring the pre-2007 tax burden rather than increasing it relative to what it was five years ago.

Fourth and finally, the Plan avoids increases in the capital tax, the corporate income tax and the personal income tax. Instead, it puts forward increases in the Quebec sales tax, and increases in user fees in the form of a general indexation of existing fees and of a new health premium.

Will the Plan Succeed?

If applied to the letter, the Plan for Restoring Fiscal Balance passes the three-pronged financial, political and economic test. Financially, if realized, it will secure the sustainability of Quebec' public finances for the foreseeable future. Politically, the Plan is in line with the massive support of public opinion for fiscal balance (Léger Marketing 2010 a). Moreover, by relying more on a spending slowdown than on tax increases, the Plan complies with public support for a reduction in the size of government (Léger Marketing 2010b).

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Table 4: Summary of the Quebec Government's Plan for Restoring Fiscal Balance for 2013-2014, 2009/2010 and 2010/2011 Budget Versions

Measures	2009/2010 Budget (Jérôme-Forget)	2010/2011 Budget (Bachand)	
	\$ Million	\$ Million	Percent
Increase in Own-source Revenue Including: Increases in Taxes and User Fees Fight Against Tax Evasion	2,360 1,460 900	5,477 4,277 1,200	45 35 10
Spending Slowdown	3,398	5,734	47
Measures Yet to be Identified	3,770	1,015	8
Total Planned Measures	\$ 9,528	\$ 12,226	100%

Note: Finances Québec (2009, table A.9; 2010b, tables 43 and 45).

Economically, based on results of contemporary research on the subject (see, for example, Dahlby 2008; Chen and Mintz 2009), the increases in consumption taxes and user fees will be less damaging for investment and economic growth than increases in the capital tax, the corporate income tax or the personal income tax would have been.

Even if the Plan is deemed acceptable in theory, whether it can in fact become a reality obviously remains to be seen. It's not a done deal. There is no assurance of its administrative or political feasibility. On the administrative level, the planned cuts consist of reducing by \$5.7 billion, or 8 percent, the \$74 billion in program spending that would otherwise be reached in 2013/2014 if the trend of recent years were maintained (see Table 1). This is going to be a complex and difficult undertaking. So far, it is based on two sets of guidelines: the government's Bill 100 introduced by Minister Bachand in June 2010, and the Action Plan for Reducing and Controlling Spending submitted by Treasury Board Minister Michelle Courchesne in November 2010 (Finances Québec 2010b, table 48 and 49; Quebec Treasury Board 2010b). The measures

mentioned include a reduction in public administration costs (\$2.6 billion), a review of several government programs (\$1 billion), stricter fiscal discipline (\$1.7 billion), and reduced spending for government corporations and other public bodies (\$500 million).

To succeed, this undertaking must show respect for government employees (civil servants, teachers, nurses, police officers, etc.) and be implemented with their full cooperation. Everything must also be tried to slow down spending by lowering production costs for public services (the intelligent approach) rather than only reducing their volume and quality (the stupid approach). The urgency of increasing government productivity through an in-depth review of existing practices rather than through marginal adjustments to these practices is particularly obvious in the health and social services sector. Since 1988, there have been no less than nine reports from committees, commissions and task forces filled with proposals for improving the system's performance, most of which have not translated into action.17 It is time to take what these reports have recommended seriously before denial and procrastination end up leading to an all-out crisis.

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¹⁷ The reports are in the names of Messrs. Rochon, Côté, Arpin, Anctil, Clair, Bédard, Deschênes, Ménard and Castonguay.

On the political level, the budgetary strategy adopted has already come at a high cost to the government. Recent Léger Marketing polls (2009; 2010a; 2010b) indicate that Quebecers are quite concerned with the budget deficit (70 percent); opposed to Quebec sales tax increases (60 percent) and government fee increases (65 percent); very much in favour of various measures for reducing spending (63 percent to 91 percent); but skeptical about the government's ability or determination to cut spending and achieve fiscal balance by 2013/2014 (82 percent).18 As a result, they are broadly dissatisfied with the 2010/2011 Budget (74 percent). Moreover, despite strong support for reducing spending in general, active resistance to specific spending cuts from each individual group that will be affected by a reduction or loss of benefits is naturally to be expected. The political fragility of the Charest government, which is quite considerable at this time, will not make things easier.

Conclusion

In early 2009, the prospect of a growing fiscal imbalance in Quebec suddenly appeared after 10 years of compliance with the province's Balanced Budget Act and moderate growth in program spending. This imbalance was structural in nature. It did not stem chiefly from the 2008/2009 recession, which was rather moderate in Quebec. If nothing were done, the budget deficit would persist and worsen, even after the economy returned to full employment. The financial imbalance was not the result, either, of any deteriorating performance of the Quebec economy over the past two decades. On the contrary, over the past 20 years, per capita real domestic income in Quebec has increased somewhat faster than in the six other nonhydrocarbon producing Canadian provinces and as rapidly as in the United States.

Without corrective measures, this fiscal imbalance would not have been financially sustainable. The government estimated the budgetary deficit at \$12 billion in 2013/2014. In this commentary, I have further estimated that, without corrective measures, the deficit was on track to reach \$27 billion in 2019/2020, and would continue to increase thereafter faster than GDP. The debt-to-GDP ratio would be on an explosive path.

In addition to the modest and temporary effects of poor market conditions, this analysis has found several causes for the expected deterioration of the budgetary situation: demographic aging that would slow down economic growth while adding pressure on health spending; the pre-2009 tax cuts; accelerated investment in infrastructure; the growth of program spending, which, although more moderate than in the rest of Canada, still exceeded GDP growth; the announced slowdown of federal transfers; and the expected return of higher interest rates on the debt.

The government reacted to the situation promptly by presenting a Plan for Restoring Fiscal Balance in the 2009/2010 and 2010/2011 budgets. If applied as stated, this Plan could restore the financial sustainability of the province's finances. It is in line with public opinion, which is clearly in favour of eliminating deficits and reducing the size of government. It is based more on slowing down spending than increasing taxes. And, to minimize the damage to economic growth, it relies on increases in consumption taxes and user fees for public services rather than on increases in the capital tax or income taxes. Therefore, the Plan passes the three-pronged financial, political and economic test.

But all is not won on the administrative and political levels. It remains to be seen if spending restraint can be implemented in full respect for government employees and with their cooperation; if the proposed cuts of nearly \$6 billion (2 percent of GDP) will be based on an in-depth review of

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¹⁸ Public opinion has also shown reluctance towards the new \$200/year health premium, which is a flat amount independent of income, as well as towards the suggested \$25 fee per medical visit. Laurin (2010) has provided a thorough analysis of these measures. The proposal of the fee per medical visit was withdrawn by Minister Bachand in September 2010.

existing practices and on a significant increase in government productivity or simply on blind cuts to services without a review of existing practices; and if the government is able to overcome the inevitable political resistance from individual groups affected by the spending cuts.

What directions would we like to see adopted in the 2011/2012 Budget? In my opinion, the government should, first of all, clearly state that it is staying the course with the Plan for Restoring Fiscal Balance announced in the two previous budgets. It should avoid procrastinating for three reasons: 1) the economic recovery is well underway in Quebec, which means that the time is appropriate for budgetary adjustments; 2) government debt is large and is there is no room for complacency; and 3) all postponements of the necessary measures would only increase the magnitude of the adjustments that would have to be made later. Quebecers are in favour of fiscal balance, minimal tax and fee hikes, and spending restraint. But they doubt the government's ability and determination to carry out the restraint. The government will have to provide them soon with reasons for believing in the success of the undertaking.

Second, a vast operation to reform healthcare with the cooperation of all stakeholders is a matter of national urgency. After the nine reports that have been filed in Quebec over the last 20 years, now is the time for action. Health must remain universally accessible, but the sector must be made more competitive. This can be achieved by providing, as in many European countries, certain additional roles for the private sector. This would help to have clear ideas in mind and tangible results in hand for the discussions that are about to take place over the future of the Canada Health Transfer. Everything must be on the table when these discussions begin, including replacing federal health transfers with greater fiscal responsibility on the part of provinces, as well as introducing greater flexibility into the Canada Health Act. Failing to reform the healthcare sector

and to better circumscribe the room it will occupy in the public budget would result in a destruction of the government's other essential missions. That would be a tragedy.

Third, the economy needs help to deal with the challenge of an aging population. Aging will put up a barrier to economic growth by decreasing the proportion of the population aged 15 to 64. The negative impact on employment, production and domestic income can be mitigated by encouraging more adults to become and remain active, and working more hours. But this has limits. We cannot, after all, make more than 100 percent of adults capable of working work more than 100 percent of the time! That is why, if we want to prevent population aging from slowing down the economy, the value produced by each hour worked, namely productivity, must be accelerated.

However, Quebec's productivity, as in the rest of the country, is 20 percent behind American productivity. How can this gap be filled? The ultimate source of productivity gains is new ideas on what to do and how to do it, realized by investment and funded by savings. The generation and application of new ideas are above all a cultural phenomenon encouraged by institutions that promote freedom, emulation, perceptiveness, effort, entrepreneurship, knowledge, dialogue and social cohesion. My colleagues at the Canadian Institute for Advanced Research and at the C.D. Howe Institute have identified the buttons to push – in the Budget and elsewhere – to increase the chances for Quebec and Canada to have a more productive economy: education, access to markets, competition, taxation and public infrastructures.19 It "just" takes educating our children, building an open society by warding off monopolies, private preserves and political clientism, taxing consumption rather than work, savings, innovation and investment, and valuing social solidarity and trust in all of their forms. Nothing more.

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¹⁹ See in particular Rosenberg and Birdzell (1987), Helpman (2004, 2008), McCain, Mustard and Shanker (2007), Trefler (2008), Task Force on Business Investment (2008), and Chen and Mintz (2009).

References

- Alliance sociale. 2011. "Un autre Québec est possible." Consult at http://www.newswire.ca/fr/releases/archive/Januar y2011/09/c8963.html.
- Canadian Institute for Health Information 2010.

 National Health Expenditure Trends, 1975 to 2010.

 Ottawa.
- Chen, Duanjie, and Jack Mintz. 2009. The Path to Prosperity: Internationally Competitive Rates and a Level Playing Field. Commentary 296. Toronto: C.D. Howe Institute. September.
- Dahlby, Bev. 2008. *The Marginal Cost of Public Funds : Theory and Applications*. MIT Press, Cambridge, MA.
- Desjardins Economic Studies. 2009. "Choc démographique: une mise à jour." Economic point of view. July.
- Dungan, Peter, and Steve Murphy. 2011. "National projection through 2040." PEAP Policy Study 2011-1. Rotman School of Management, University of Toronto. January.
- Finances Québec. 2005. Impacts des changements démographiques sur l'économie, le marché du travail et les finances publiques du Québec. Research document. February.
- ————. 2007. 2007-2008 Budget, Budgetary Plan. March.
- ——————. 2008. 2008-2009 Budget, Budgetary Plan. March.
- ————. 2009. 2009-2010 Budget, Budgetary Plan. March.
- —————. 2010a. 2010-2011 Budget. Budgetary Plan. March.
- économique et financière du Québec. December.
- Godbout, Luc, Pierre Fortin, Matthieu Arsenau and Suzie St-Cerny. 2007. *Oser choisir maintenant*. Presses de l'Université Laval, Québec.

- Helpman, Elhanan. 2004. *The Mystery of Economic Growth*. Harvard University Press, Cambridge, MA.
- Helpman, Elhanan (ed.). 2008. *Institutions and Economic Performance*. Harvard University Press, Cambridge, MA.
- Institut de la statistique du Québec. 2010. Perspectives démographiques du Québec et des régions, 2006-2056. May.
- Laurin, Alexandre. 2010. *Le Budget 2010 du Québec : effets sur la taille et la progressivité du fardeau fiscal.*Backgrounder 132. Toronto: C.D. Howe Institute. July.
- Léger Marketing 2009. "Perceptions des Québécois à l'égard des augmentations de tarifs gouvernementaux." Investigation Report. September. Consulted at www.legermarketing.com
- Léger Marketing. 2010a. "Le budget provincial 2010." Investigation Report. March. Consulted at www.legermarketing.com
- Léger Marketing. 2010b. "La politique provinciale et fédérale au Québec." Survey Report. November. Consulted at www.legermarketing.com
- Liapounov, Aleksandr. 1892.
 Общая задача объ устойчивости движенія.
 Маthematic Society of Kharkov, Ukraine. French translation by E. Davaux. 1907. *Problème général de la stabilité du mouvement*. Princeton University Press, Princeton, NJ.
- McCain, Margaret, Fraser Mustard et Stuart Shanker. 2007. Early Years Study 2: Putting Science into Action. Council for Early Child Development, Toronto, ON.
- Quebec Treasury Board. 2010a. 2010-2011 Expenditure Budget Volume II: Ministry and Agency Credits. March.
 - ————. 2010b. 2013-2014 Action Plan for Restoring Fiscal Balance (L'État se serre la ceinture : des choix, des cibles, un plan). November.

| 16 Commentary 325

- Robson, William. 2010. "The Glacier Grinds Closer: How Demographics Will Change Canada's Fiscal Landscape." E-Brief. Toronto: C.D. Howe Institute. September.
- Rosenberg, Nathan, and Luther Birdzell. 1987. *How the West Grew Rich*. Basic Books, New York.
- Statistics Canada. 2011. *CANSIM Database*. Consulted at http://dc.chass.utoronto.ca/chasscansim/.
- Task Force on Funding the Healthcare System. 2008. En avoir pour notre argent. Government of Quebec.

- Task Force on Business Investment. 2008. L'investissement au Québec : on est pour. Government of Quebec.
- Trefler, Daniel. 2008. "Innis Lecture: Canadian Policies for Broad-Based Prosperity." *Canadian Journal of Economics*, vol. 41, No. 4, pp. 1156-1184. November

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March 2011 Ferede, Ergete, and Bev Dahlby. The Marginal Cost of Public Funds for Provincial Governments. C.D. Howe Institute Commentary 324. March 2011 Ragan, Christopher. "Fixing Canada's CPI: A Simple and Sensible Policy Change for Minister Flaherty." C.D.Howe Institute e-brief. February 2011 Hrudey, Steve E. Safe Drinking Water Policy for Canada - Turning Hindsight into Foresight. C.D. Howe Institute Commentary 323. February 2011 Bergevin, Philippe, and William B.P. Robson. The Costs of Inflexible Indexing: Avoiding the Adverse Fiscal Impacts of Lower Inflation. C.D. Howe Institute Commentary 322. February 2011 Ragan, Christopher. Precision Targeting: The Economics - and Politics - of Improving Canada's Inflation-Targeting Framework. C.D. Howe Institute Commentary 321. Bruce, James P. "Protecting Groundwater: The Invisible but Vital Resource." C.D. Howe Institute February 2011 Backgrounder 136. February 2011 Laurin, Alexandre, and William B.P. Robson. A Faster Track to Fiscal Balance: The 2011 Shadow Budget. C.D. Howe Institute Commentary 320. Melino, Angelo. Moving Monetary Policy Forward: Why Small Steps – and a Lower Inflation Target – Make January 2011 Sense for the Bank of Canada. C.D. Howe Institute Commentary 319. January 2011 Poschmann, Finn. What Governments Should Do in Mortgage Markets. C.D. Howe Institute Commentary 318. Calmes, Christian, and Raymond Theoret. "Lifting the Veil: Regulation and Shadow Banking." C.D. Howe January 2011 Institute e-brief. January 2011 Richards, John. "School Dropouts: Who Are They and What Can Be Done?" C.D. Howe Institute e-brief. December 2010 Longworth, David. "Warding Off Financial Market Failure: How to Avoid Squeezed Margins and Bad Haircuts." C.D. Howe Institute Backgrounder 135. December 2010 Moore, Kevin D., William Robson and Alexandre Laurin. Canada's Looming Retirement Challenge: Will Future Retirees Be Able to Maintain Their Living Standards upon Retirement? C.D. Howe Institute Commentary 317. December 2010 Green, Andrew, and Michael Trebilcock. The Eco-Fee Imbroglio: Lessons from Ontario's Troubled Experiment in Charging for Waste Management. C.D. Howe Institute Commentary 316. November 2010 Allan, David C., and Philippe Bergevin. The Canadian ABS Market: Where Do We Go From Here? C.D. Howe Institute Commentary 315. November 2010 Peters, Jotham, Chris Bataille. Nic Rivers and Mark Jaccard. Taxing Emissions, Not income: How to Moderate the Regional Impact of Federal Environment Policy C.D. Howe Institute Commentary 314. November 2010 Bliss, Michael. Critical Condition: A Historian's Prognosis on Canada's Aging Healthcare System. C.D. Howe Institute 2010 Benefactors Lecture. Laurin, Alexandre, and William B.P. Robson. "The Public Sector Pension Bubble: Time to Confront the November 2010 Unmeasured Cost of Ottawa's Pensions." C.D. Howe Institute e-brief. Landon, Stuart, and Constance Smith Paid Energy Prices and Alberta Government Revenue Volatility. November 2010 C.D. Howe Institute Commentary 313.

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