Deficits and Debt in New Brunswick: Financial Meltdown or a Mere Blip?

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1. Introduction

Over the last three years (since 2008) there has been extensive public debate in New Brunswick concerning public finances. In July 2008, just as the world was entering the "great recession", the New Brunswick government published its discussion paper on tax reform. It proposed to "rebalance and modernize" the tax system by reducing both personal and corporate income taxes, while increasing consumption taxes (HST and a new carbon tax).[1] Numerous commentators criticized the proposed changes for being regressive.[2] Perhaps to make the tax reforms more politically palatable, the final version of the tax reforms (introduced in the March 2009 Budget) dropped the increases in consumption taxes. What remained were drastic decreases in personal and corporate income taxes to be phased in over a four year period.[3] The goal was to make New Brunswick a "preferred" destination (in tax terms) for both high-income earners and corporations, and hence put New Brunswick on the road to "self-sufficiency". The immediate result, however, was higher deficits that were exacerbated by the cyclical downturn.

Many policy analysts such as Donald Savoie, Craig Brett, two of the authors of this paper, and others, warned that New Brunswick had created a substantial structural deficit problem that could easily, and relatively quickly, unravel into a serious financial crisis.[4] In particular, the 2009-10 deficit was $738 million, the second biggest in Canada as a percent of GDP. At that time interest on the provincial debt was the province's fourth largest expenditure, absorbing 48 cents of every dollar of income tax revenue – and this at a time when interest rates were at an all-time historic low. This was worrying for a province without valuable natural resources such as oil (which Alberta and Saskatchewan possess) or hydro-electricity (which British Columbia, Manitoba, and Quebec possess) to fall back on. Furthermore, the province depends on Federal government transfers (about 40%) for much of its revenues. Any cutback in Federal transfers, any worsening in the global economy, any increase in interest rates, might tip the province over a financial knife edge. On top of the ordinary account deficit there was also a capital account deficit – increased by a massive $1.6 billion capital spending program to fight the recession.

While some of this money ($400 million) came from the Federal government, net debt increased at an alarming $965 million during 2009-10.
During the September provincial election of 2010, the Liberal government defended itself against charges that it was being financially reckless. On the one hand, it claimed that part of the deficit was due to the recession, that most governments were running deficits, and that it was appropriate to run deficits at that point in the business cycle. On the other hand, the Liberal government claimed its tax cuts would generate so much extra growth, that the budget would be balanced within four years without the need to cut services. Those opposed to the tax changes argued that most of the deficit was structural not cyclical, and questioned the supposed link between lower taxes and higher growth. They questioned whether the higher growth could be enough to replace the lost revenue and noted that New Brunswick already had a competitive tax on capital and reasonably competitive income tax rates[5]. Questions were raised as to whether neighbouring jurisdictions would retaliate if business *did* relocate to New Brunswick, setting up a "beggar-thy-neighbour" cycle of tax reductions.

However, the more telling critique of the reforms was largely ignored during the September election campaign. After pages of detailed analysis of the distribution effects of the tax changes, Ruggeri and Bourgeois make this one cryptic remark in their conclusion (2010, page 13): "Even if wishful thinking became reality and the provincial economy expanded in response to lower personal and corporate income tax rates, there would be no additional funds for the provincial government because the resulting increase in own-source revenues would be offset by lower equalization payments."

The vagaries of equalization payments are not well understood by those who are not experts on Canadian fiscal federalism. However, the basic point is this. New Brunswick received in 2009-10 about $1.6 billion from the Federal government in equalization payments. These are designed to compensate the province for the fact that it is expected to provide public services at an average Canadian standard, but it does not have an average tax base to do so (since its per capita incomes are lower than the Canadian average). The equalization payments therefore "equalize" the tax bases across provinces. Any growth in the New Brunswick economy that increased its tax base relative to the Canadian average would lead to lower transfer

payments. The loss in revenue might even be worse than "one-for-one" in the event that New Brunswick had lower tax rates than the rest of the country. (Appendix 1 contains a short primer on equalization payments, which provides a more detailed explanation.)

Despite the seemingly dire economic circumstances, the major parties competed with the largesse of their campaign promises during the September election campaign.[6] Directly after the election, speaking at a summit conference on the province's future, TD economist Don Drummond projected – that unless drastic cuts were made to the public sector – deficits would gradually increase from $1 billion to $2 billion, and net debt would increase from 33% of GDP to 50%, over the four year period from 2010-11 to 2015-16.[7]

Adding to the widespread sense of doom and gloom, the University of New Brunswick's chancellor, Richard Currie, made a public speech in November 2010 where he attacked the political leadership of the province. He described New Brunswick as a "failing province" too accustomed to depend on Federal transfers, with too many government workers, too many municipal entities, too many small schools, small hospitals, and small universities – and with too much public money devoted to helping stagnant industries such as pulp and paper.[8]

Following Currie's speech, and in the run up to the Conservative government's first budget in March 2011, there was a systematic attack on public servants in the media. Public services were described as "bloated" and public workers were described as privileged because of their better wages and "gold-standard" pensions.[9]

Given this background, this paper asks whether New Brunswick's situation is as severe as it has been portrayed. We ask how much of the deficit is cyclical and how much is structural? We look at the long term trends of spending and revenues in order to assess the fiscal situation of the province at the beginning of the 2011-12 fiscal year. Is the problem one of excess spending? Or is it insufficient revenues? As a side issue, we briefly consider whether there is any evidence of inefficiencies in the delivery of public services. An important objective in this

discussion is to attain a better understanding of New Brunswick's public accounts, and it is to this topic we turn next.

2. Understanding the Data

It isn't an easy task to assess a government's finances, even for a relatively small jurisdiction such as New Brunswick. Government accounts can sometimes appear as an enigma wrapped in a mystery. To penetrate this mystery, it is important to know that there have been important changes in accounting practices over the years. In particular, there have been three phases of the public accounts in New Brunswick.

In the first phase, prior to 1990, the budget balances for the ordinary and capital accounts were kept completely separate, not aggregated into "total" accounts. Consequently there was not a "total" deficit – only an ordinary account deficit that was completely unaffected by capital spending. (The net debt was calculated as the difference between total assets and total liabilities, and the "change in the net debt" was the first difference of net debt.)

Improvements were made after the 1990-91 fiscal year. During this second phase the ordinary and capital accounts were totalled, giving rise to an overall deficit or surplus number. This number was identical to the "change in net debt." During this second phase, the full amount spent on capital assets was booked to the income statement. Given this accounting practice, large-scale capital spending could be unattractive to governments since it would adversely affect the measured deficit in the year the spending took place – even though the benefits would last for many years. For this reason "public-private-partnerships" would be attractive to governments. This is no longer the case.

The third (and still current) phase began in 2004-05 when New Brunswick followed the recommendations of the Public Sector Accounting Board (PSAB) and adopted accrual accounting on "tangible capital assets" (TCA's). These are fixed assets (such as schools, hospitals, roads, bridges, vehicles, large pieces of machinery or equipment) that cost over $100,000 and have an expected life of more than one year.

With current accounting practices a $25 million building that is expected to last 40 years is amortized over the 40 year period. Thus, expenditure will be shown to have increased by $625,000 for each of those 40 years.

Currently, capital spending affects the measured deficit in four ways: first, as soon as a capital project is completed, measured spending increases by the amortized amount; second, since the total capital cost is upfront, it adds to the province's borrowing, which increases the cost of debt service; third, there will be spending implications of having more infrastructure – more rooms to heat and light, or more roads to upkeep; and finally, fourth, any capital spending that is either less than $100,000 or has an expected life of less than one year is entered as a 'capital expenditure' in the ordinary account.

Clearly, in the current system there is no longer a correspondence between deficit (or surplus) and change in the net debt. To move from the official deficit to the change in the net debt several adjustments must be made. First, we need to remove the amortization of capital assets, which is included as an expense in the official deficit but is only imputed. Second, we need to add the actual cost of "acquiring tangible assets". Third, since the Federal government often contributes current or future money to capital projects we need to make two smaller adjustments: we need to deduct the money actually received from the Federal government for capital projects, and add the amortization of their deferred capital contributions (since this is included as revenue in the official deficit but it is not yet received, only imputed). The following table illustrates the changes required for 2011-2012.

TABLE 1: Moving from Official Deficit to the Change in the Net Debt 2011-12

448.822	Official Deficit (OD)
522.406	Acquisition of tangible capital assets
-327.985	Amortization of tangible assets (included as an expense in OD, but only imputed)
-49.395	Revenue received to acquire tangible capital assets
36.408	Amortization of Deferred Capital Contributions (included as revenue in OD but only imputed)
630.256	INCREASE IN NET DEBT IN 2011-2012

Official Deficit versus Change in Net Debt: Given the discussion above, what is the best measure of the government's current fiscal situation: is it the deficit, or is it the change in net debt? On the surface it might seem preferable to focus on the change in net debt since this measures actual revenues and expenditures, whereas the official deficit contains "made-up" or "soft" numbers (the amortized expense of capital assets). These numbers depend on uncertain estimates of the life of a capital asset, which involves predicting the future and may be wildly wrong. For example, suppose a hydro-electric dam costs $400 million and is supposed to last 40 years. The amortized cost is $10 million per annum. Suppose after 10 years we discover the wrong type of cement was used to construct the damn, reducing its lifespan to 20 years. The measured deficit would jump by $20 million per annum without any change in actual spending in that year.[10]

However, it turns out that the change in the net debt is also affected by uncertain estimates of the future lifespan of some capital assets. This arises because of the treatment of government business enterprises. In particular, it is assumed that government business enterprises are supposed to be able to fund their debt through their operations. Therefore, their debt is supposed to be self-financing. (It is initially included, but later backed off, the government's books.)

Net debt measures financial assets minus financial liabilities. The earnings of government business enterprises contribute to current revenues (and hence affect the measured deficit). More importantly, the net equity value of the enterprises is treated as a financial asset. The net equity value of any business enterprise involves uncertain estimates of future revenues and expenses. Hence the measure of net debt (and change in the net debt) is also affected by "soft" or "uncertain" numbers.

The treatment of NB Power: All this helps to explain the confusion surrounding the province's electrical utility, NB Power. Contradictory statements were made by many experts over whether the proposed sale would help the province's debt position.[11] It turns out that NB Power's debt is on the books (nominally), but is backed off again.[12] On the other hand, the province's financial assets include its net equity position in NB Power.[13] For example, this net equity position in 2010 was negative $226.5 million, swamping the positive net equity in other government

enterprises (such as NB Liquor Corporation or the Lotteries Commission). Under "financial assets" we see an overall negative item for "investments" of $174.4 million.

Going back to our example of the effect of discovering that the wrong kind of cement was used on a hydro-electric dam (that reduces its expected lifespan by half). This reduces the net equity position of NB Power, and hence negatively impacts the province's statement of its net debt, *even though no new borrowing has in fact taken place* as a result of the discovery.[14]

In a nutshell, both the "official deficit" and the "change in the net debt" reflect "soft" or "made-up" numbers – current estimates of the expected lifespan of capital assets. Unanticipated changes in an expected lifespan will affect both the official deficit and the "change in net debt" (though in different ways).

3. The Long Term Context: The Financial Sustainability of the Province

All this helps explain why the auditor general's office has changed the way it reports on the financial condition of the province. In accordance with a new statement of recommended practice issued by the Public Sector Accounting Board, the auditor general's office now reports on several measures of the financial position of the province. It is to this issue that we turn next.

More Data Difficulties: It is tempting to compare the net debt to GDP ratio in New Brunswick to that of other provinces. Doing so, it appears that in 2009 New Brunswick was by no means the worst off province: its net debt to GDP ratio (of 30%) was around the middle of the pack (the fifth lowest in Canada, lower than Manitoba, Quebec, PEI and Nova Scotia). But such comparisons are problematic.

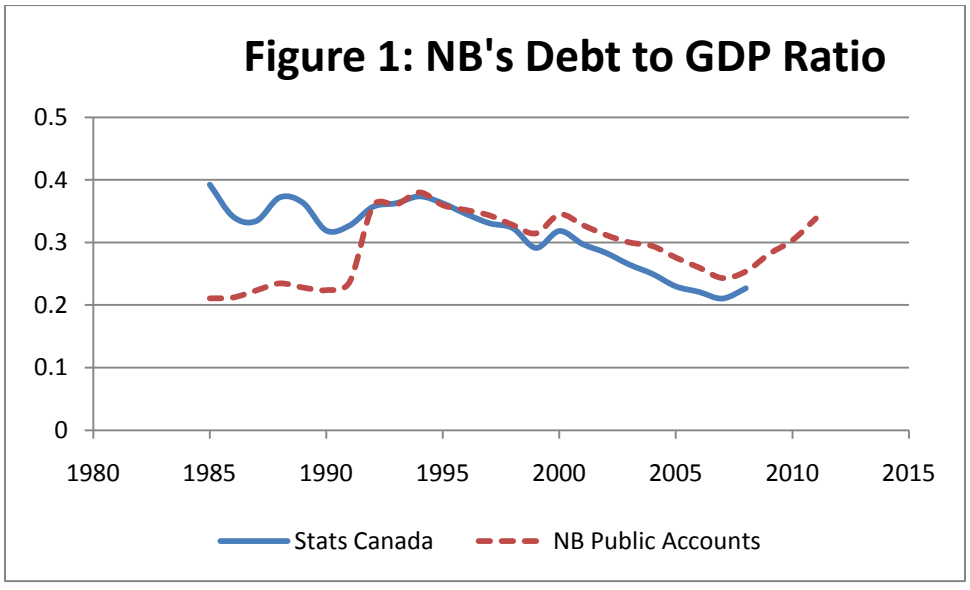
According to Statistics Canada "each government maintains its own accounts in a way that best serves its own purposes. Consequently, the public accounts published by different governments in Canada can neither be combined nor compared."[15]

Statistics Canada provided a solution to this non-comparability by converting all government accounts in Canada to a common standard. Unfortunately,

comparable net debt data was terminated in 2008, and comparable spending and revenue data was terminated in 2009.[16] The reason is that Statistics Canada is changing the way it reports government financial statistics. It had been using the Financial Management System (FMS) accounting standards, which like New Brunswick's public accounts between 1990 and 2004 was a modified cash accounting approach. Beginning in May 2014 Statistics Canada will begin publishing new data (based on the International Monetary Fund standard) for years 2008-09 onward, which uses an accrual method for valuing tangible capital assets.[17]

In the meantime, until 2014, those interested in analyzing New Brunswick's financial situation – especially the most recent developments – must use NB's own public accounts data. It will be useful, however, to use the now-terminated Statistics Canada series as a basis of comparison.

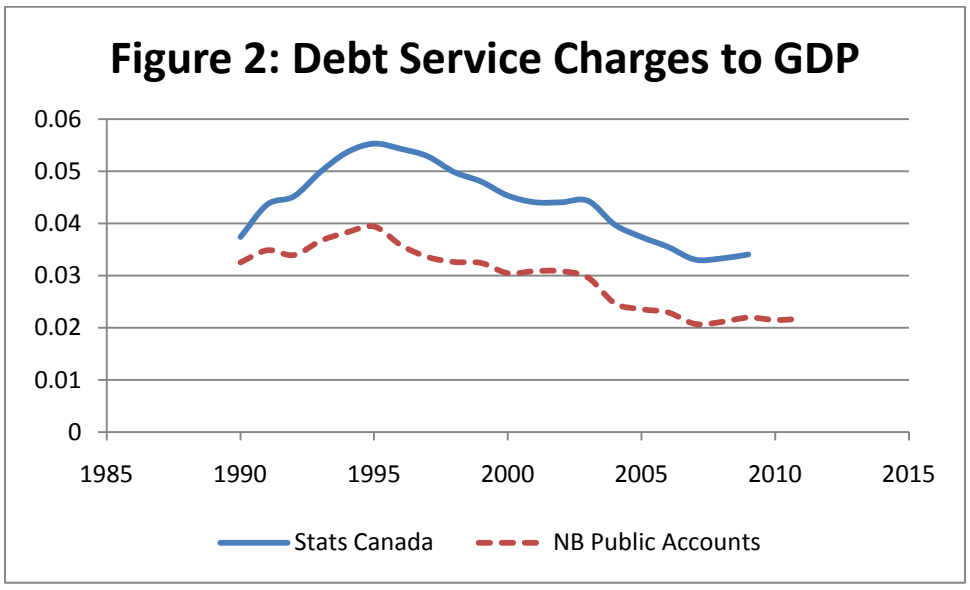
Net Debt to GDP ratio: We begin by comparing the debt to GDP ratio in the two data sets. The numerator of the solid line in Figure 1 above is Stats Canada's "provincial and general government's net financial debt" for New Brunswick.[18] The numerator of the dashed line uses the net debt figures published in the Provincial Economic Accounts. We can see a huge discrepancy in the early period, 1985 to 1992.



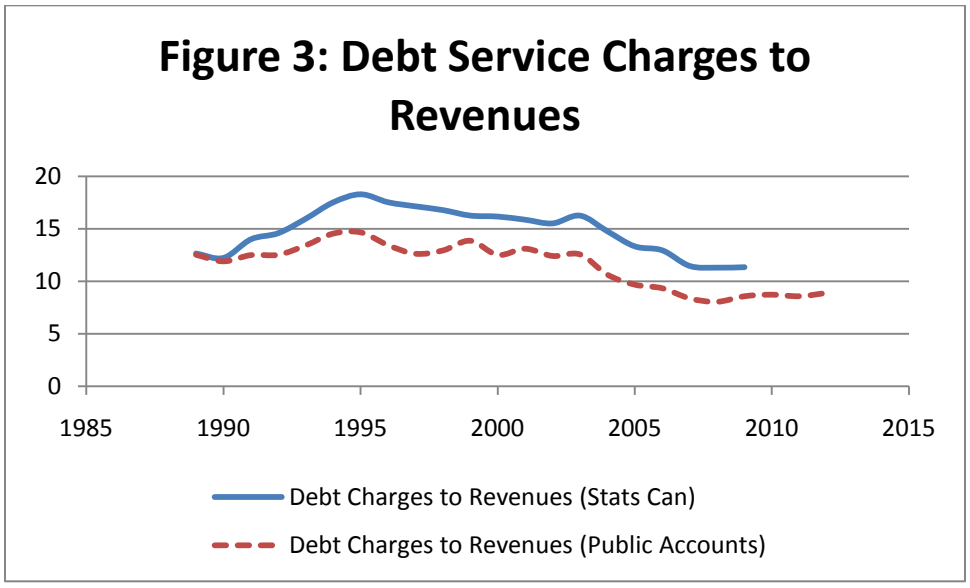
The explanation for the early discrepancy is that the NB Public Accounts omitted unfunded pension liabilities, while Stats Canada included them. This omission was corrected in 1994 (which added about $1.6 billion to the province's net debt). The net debt number was then back-cast to 1992.[19] Both series point to a long-term decline in the net debt to GDP ratio from 1992 to 2007. Since then there has been a worrying reversal in trend.

According to the auditor general, net debt to GDP is a measure of financial sustainability – "the degree to which existing financial obligations can be met without increasing the debt or tax burden relative to the economy within which it operates."

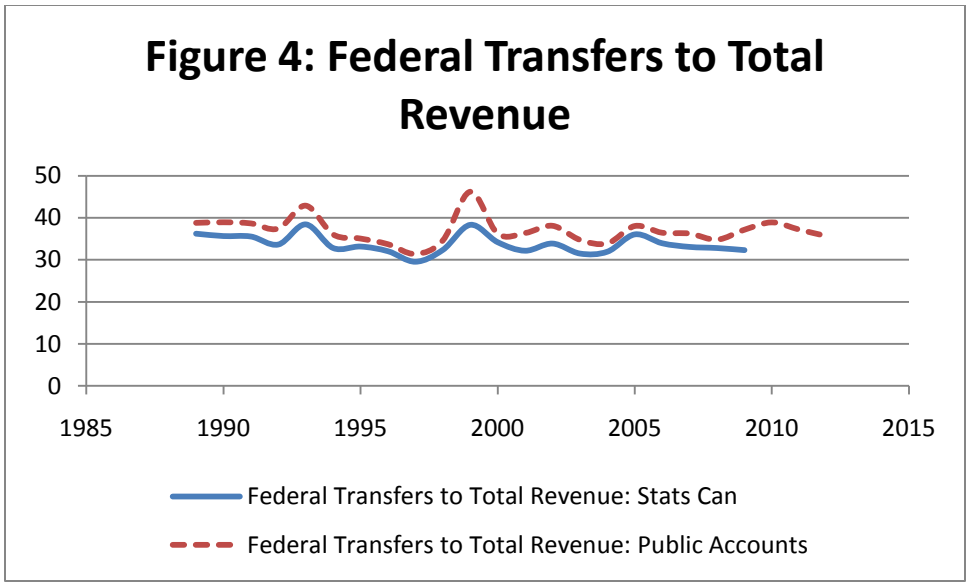
Debt Service Charges to GDP: Figure 2 reveals a substantial difference in the Debt Service Charges as a ratio to GDP in the two data sets. Perhaps the most surprising aspect is New Brunswick's Public Accounts show *lower* debt service charges (as a ratio to GDP) than Stats Canada, despite showing higher net debt (as a ratio to GDP) from 1992 onwards. Nevertheless, both series show that despite an increasing level of debt to GDP since 2007, debt service charges (as a proportion of GDP) have been held at their lowest level in 20 years – evidently the fall in interest rates has offset the increase in net debt.



Debt Service Charges to Revenues: The province's first payment commitment is to the cost of servicing its debt. There is no flexibility in the timing of these payments. Deflating debt service charges by total government revenues gives us a measure of "financial flexibility" showing the extent that past borrowing decisions limits the province's ability to meet current financial and service commitments. Both sets of data (both the public accounts and Statistics Canada) show a long-term improvement since 1995, with a slight deterioration since 2007.



Federal government transfers to total provincial revenues: This is a measure of the province's dependence on sources of funding outside its control. It is a measure of "vulnerability" or risk. In the Figure below, both data sets show very little trend – perhaps a slight decrease in the province's vulnerability since 1990. Note though that the last two years of data are only projections. (The short term increase in the proportion of Federal transfers in 1999-2000 was associated with the adoption of the Harmonized Sales Tax (HST), which occurred in 1997. The adoption of this tax led to a reduction in provincial sales tax revenues – a reduction that was more than compensated (in the short term) by an increase in Federal transfer payments.[20])



Conclusion: While there are some worries about the short-term trend, there does not seem any reason to panic.

4. Long Term Trends in Spending and Revenues

Armed with this knowledge, let's turn our attention to trends in the public accounts. Using public accounts data, let's compare spending and revenues to GDP.

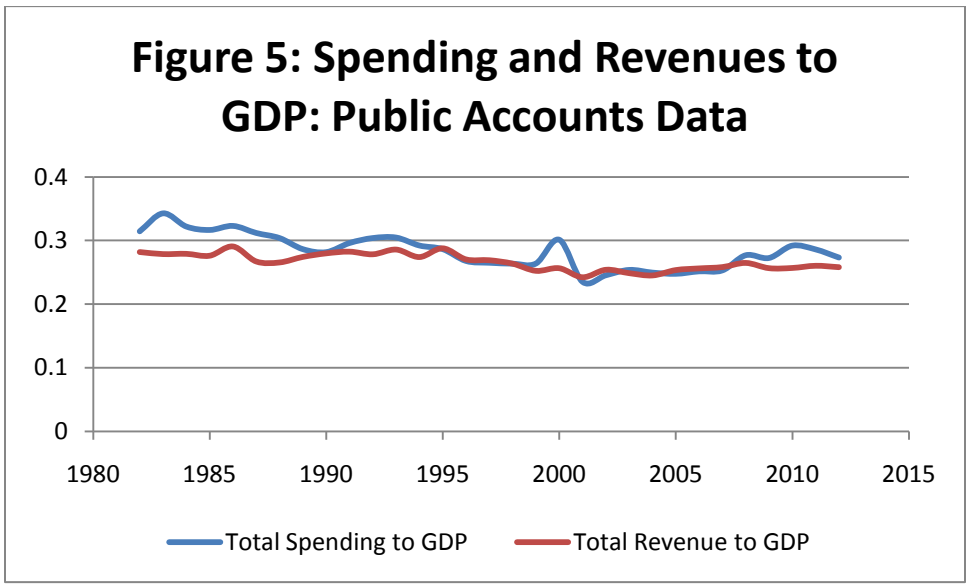
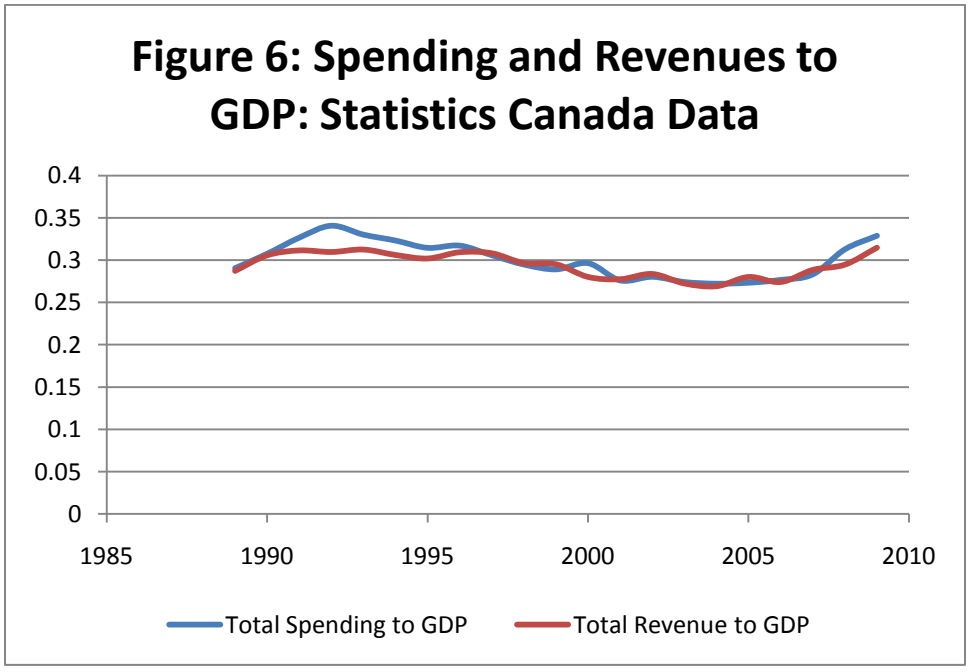


Figure 5 shows an interesting phenomenon: the provincial government has slowly become less of an important part of economic life, this despite crucial demands placed on health and education. The total provincial revenue to GDP share declined from 28.1 percent in the early 1980s to about 25.2 percent in 2011/12; the total spending/nominal GDP share declined from 32.2 percent in the early period to about 26.7 percent in 2011/12. So while there was much talk, during the recent election about provincial government over-spending, total spending in relative terms has actually declined over the last three decades.

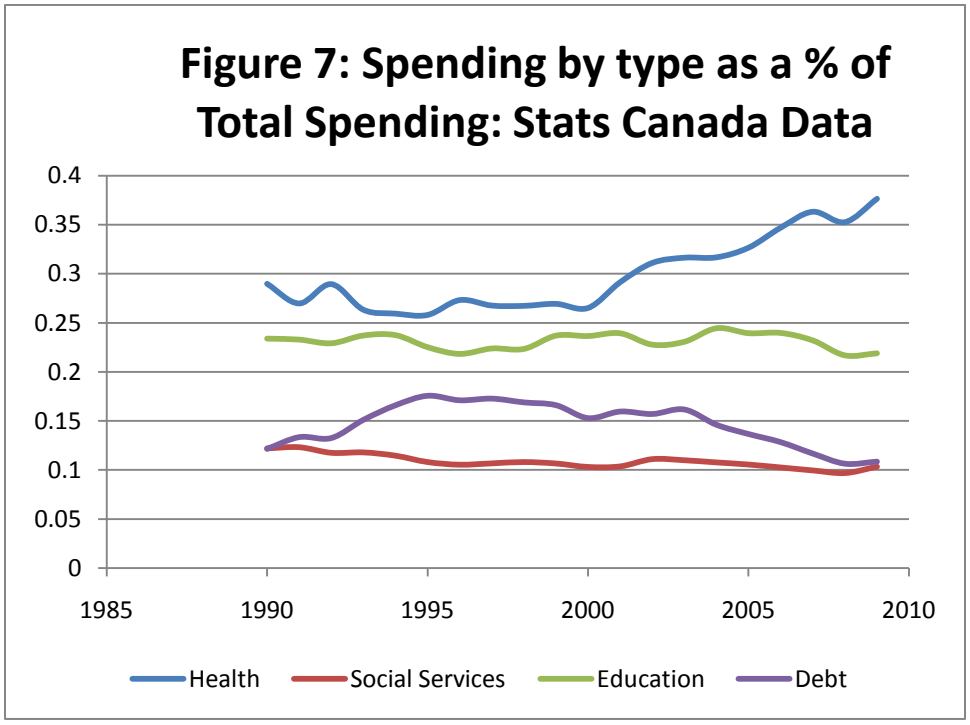
Note the blip in spending the year 2000 was due to the purchase of the New Brunswick Highway, a capital expenditure of $903.8 million. Given the accounting practices at the time, this has a direct effect on the deficit. Capital spending after 2004 is not included in the spending series, as explained earlier. Given the inconsistency in the data, let's look at the same numbers from the terminated Statistics Canada series.



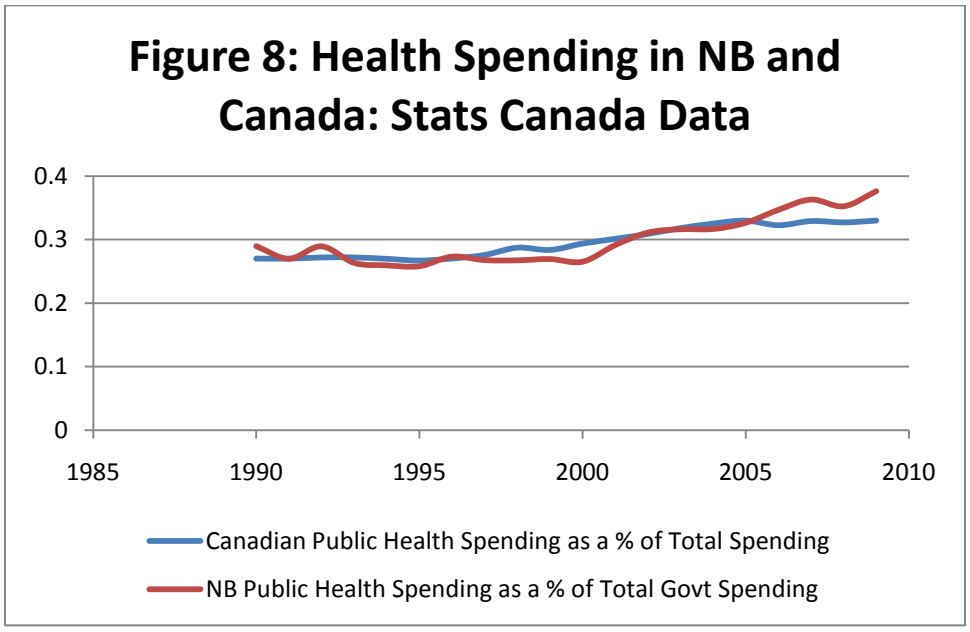
The more consistent approach to the data by Statistics Canada in Figure 6 paints a similar conclusion. Certainly, the government does not seem to be increasing its size relative to the economy.

Returning to our key concern – the seemingly increasing deficits – it seems from the Stats Canada data that the problem was too much spending. As of 2010, the full effect of the tax cuts had not been felt. Revenue was stable and growing. It was spending that saw quite a surge.

In Figure 7, again using Statistics Canada data, we break down spending onto its major items: health, social security, education, and debt service charges.



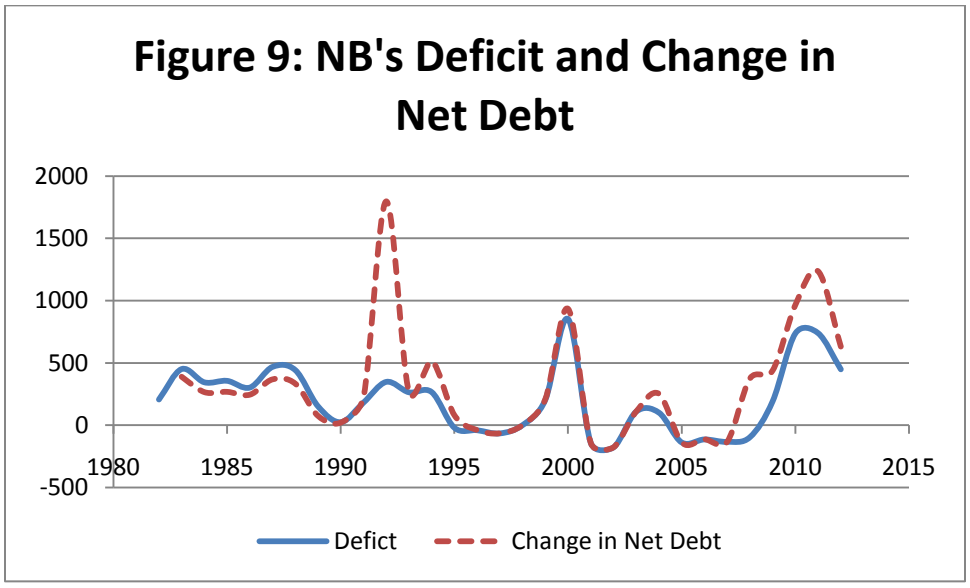
This paints a picture of health care spending being the driver of increases in total spending. In attempt to determine whether this was a nationwide phenomenon, we compared public health spending in New Brunswick relative to total government spending, to public health spending in Canada as a whole relative to total government spending.



The resulting Figure 8 seems to suggest that health spending in New Brunswick is out of line with the rest of Canada. To determine the driver of this phenomenon, we calculated the proportion of health care spending on category: hospitals, other institutions, physicians, and drugs. Surprisingly, the proportionate shares show very little movement. It would not be a surprise if health care is less efficient in New Brunswick than elsewhere. There are 26 hospitals in a province of 750,000 people. On the other hand, New Brunswick has a rurally dispersed population. We recognize that it is more expensive to deliver public services in low density population regions with large non-urban populations. It remains a research question to determine whether there are inefficiencies in the delivery of public services in New Brunswick.

5. Deficits: Structural or Cyclical?

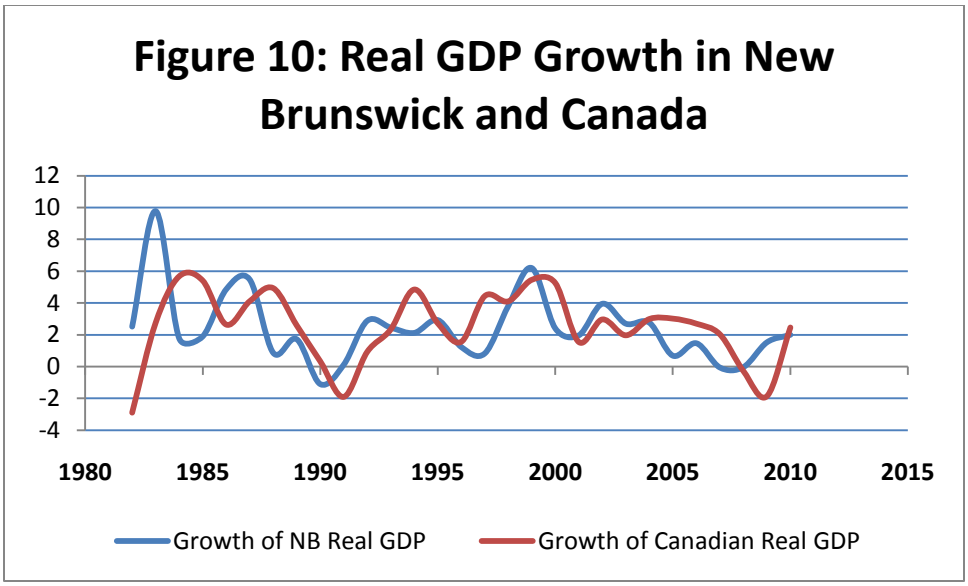
The next Figure plots the province's deficit and its change in the net debt using public accounts data up to 2009-10 (the most current year as we write), and budget estimates for 2010-11 and 2011-12. (The last number, which shows a decrease in the deficit to $448 million is a projection for the 2011-12 fiscal year.)



In Figure 9 above we see (a) the effect of the pension adjustment in 1992, and (b) the effect of the accounting change in 2004. (Prior to 2004 the deficit and change in net debt are mostly identical.)

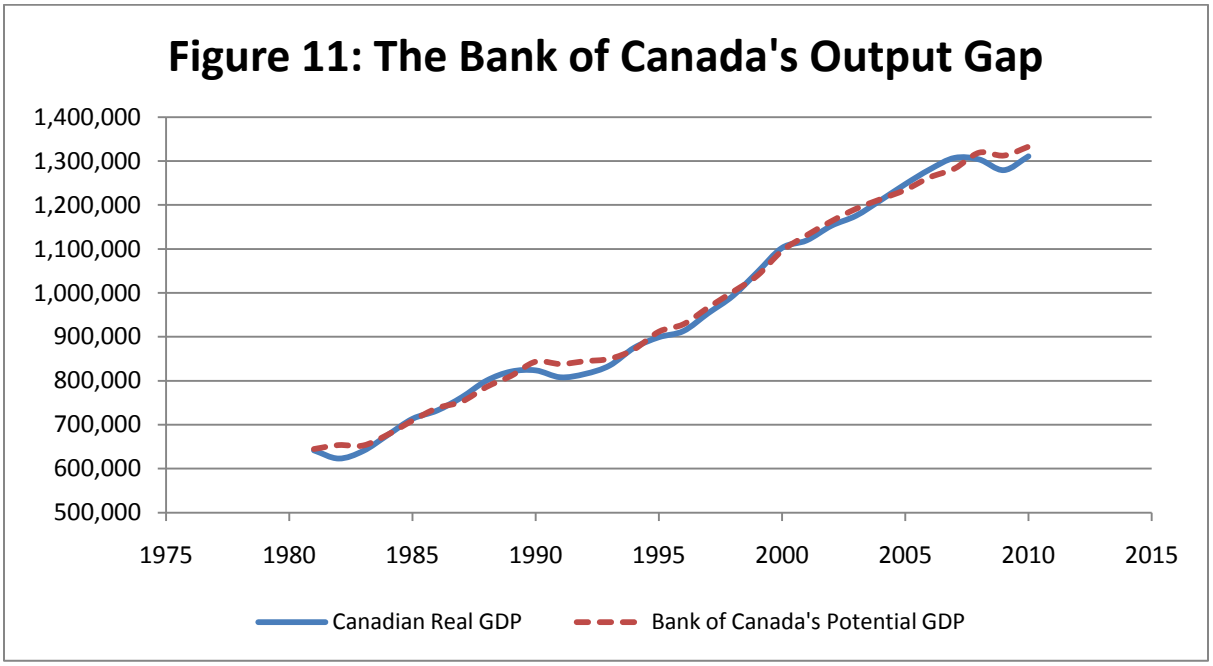
The worrying aspect is the large deficits of $730 million and $740 million in fiscal years 2009-10 and 2010-11, and the even higher change in net debt of $965 million and $1,234 million in those same fiscal years. But should we be that worried? How much of this was due to the cyclical downturn that began in 2008?

An oft heard local quip is that "recessions in the rest of Canada hardly affect New Brunswick, since we're permanently in recession." The data, however, does not support this view. The simple correlation coefficient of real GDP in New Brunswick and Canada as a whole (between 1981 and 2010) is 0.995. The Figure below shows a close correspondence between the rates of growth of real GDP in New Brunswick and the rest of Canada. However, it also shows that the 2008 downturn did not affect New Brunswick to the same extent as it did Canada as a whole.



Given that our equalization payments depend on the relative economic performance of New Brunswick to the rest of Canada, we need to estimate the output gaps for both Canada and New Brunswick.

It is convenient that the Bank of Canada publishes data on the Canadian output gap. Using this number we can construct its view of Canadian potential GDP, shown in the figure below.



Accepting these numbers at face value suggests that the output gap in Canada was 2.5% at the depth of the world economic downturn in 2009, and 1.75% in 2010. Their latest figures show an output gap of 1.5% in the 4th quarter of 2010.

Since there is no published output gap for New Brunswick, we fit a quadratic trend to New Brunswick real GDP data. This yields the following relationship between actual and potential output.

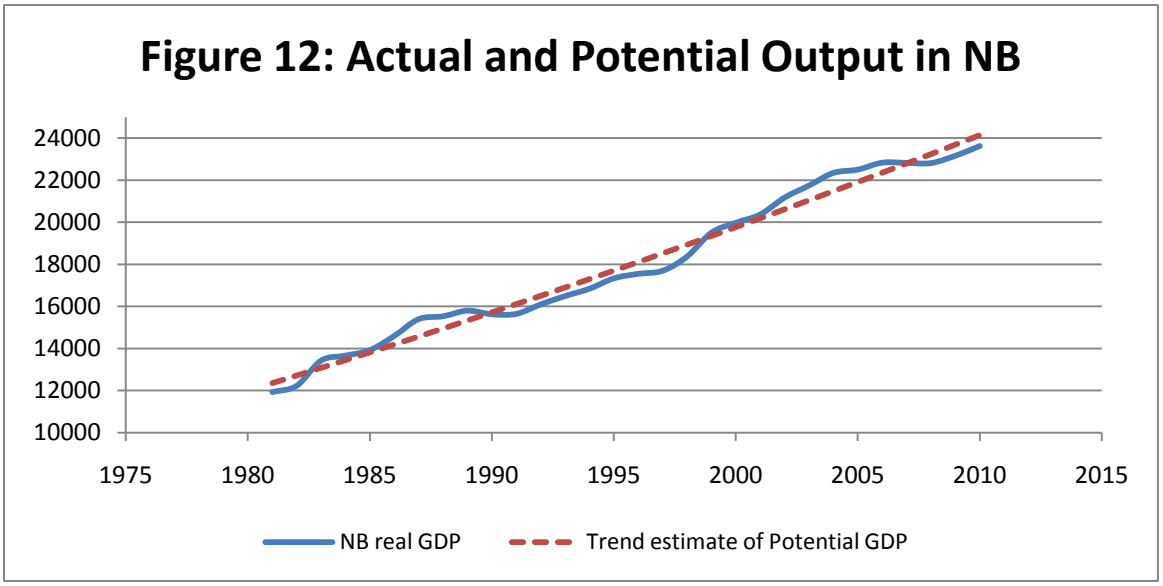


Figure 12 above suggests an output gap slightly less than that of Canada as a whole, of 1.5% in 2009, improving to 1% in 2010.

Using these estimates – and some additional assumptions – we can get a very rough handle on the size of the cyclical component of New Brunswick's deficit in 2010. First, assume that the output gap in New Brunswick is roughly the same as that in Canada as a whole, between 1.75% and 1%. This means that the recession has no implications for equalization payments.

Next, we need to estimate the impact of the output gap on own source revenues. Drummond (2010) estimates the effect of percentage point increases in major tax rates on government revenues. Since tax revenue is simply the product of the rate and the base, the percent *change* in tax revenue is the *sum* of percent change in the

rate and the percent change in the base. Therefore, we can use his estimates to get rough estimates of the effect of the output gap.

Drummond suggests that a one percentage point increase in HST yields an extra $125 million. This number makes sense in that sales tax revenue in 2010 was $932 million, and New Brunswick's share of HST was 8 percent. Therefore, each percentage point accounted for $116 million (= 932/8). This is in the same ballpark as Drummond's number, but we will use the more conservative figure of $116 million.

Drummond (2010) suggests that a one percentage point increase in personal income taxes yields an extra $100 million in revenues to New Brunswick. To check this estimate we note that during the period from 1993 to 1996 (inclusive) there were no changes in tax rates. Over this period, GDP grew at an average rate of 5.3%, while personal income tax revenue grew by 5.9%. Essentially, the relationship is slightly better than one for one. Since personal income tax revenue was $1295 million, a one percent increase is about $130 million. This suggests that Drummond's estimate is a little on the low side for personal tax revenue. We use Drummond's more conservative figure of $100 million.

Finally, Drummond suggests that each percentage point increase in corporate income taxes yields an extra $40 million. However, the Department of Finance 2009 Budget estimates that cutting the corporate income tax rate from 12% to 8% would only cost $56 million in lost revenue, suggesting that each percentage point of corporate income tax yields only $14 million (=56/4). We use the Department of Finance's more conservative estimate of $14 million.

Using this admittedly simple "back of the envelope" approach, we can get ball-park estimates of the effect of the recession on revenues, with our estimates erring on the conservative side. In the first column, we assume that the Bank of Canada's estimate of the output gap is correct, and this gap applies equally to New Brunswick as to Canada as a whole. In the second column we assume the output gap to be half a percentage point smaller. ick and the smaller estimate of the elasticity of revenue to the CIT.

Table 2: **The Effect of the Recession on NB's Revenues in 2010**		
	YGAP = 1.75%	YGAP = 1%
Personal Income Tax	$175	$100
Corporate Income Tax	24.5	14
HST	203	116
Total	**$** 402	**$** 230

These estimates suggest that anywhere from about $230 million to $400 million of the 2010 deficit of $738 million and $965 million increase in net debt could have been cyclical. We express this in percentage terms below.

Table 3: Importance of the Cyclical Component in the 2009-10		
	Upper estimate of the output gap	Lower estimate of the output gap
Deficit	54%	31%
Increase in net debt	41%	23%

If we feel that the increase in net debt is the number we should be concerned about, then the cyclical component varies from a high of 41% in 2009-10 to a low of 23%. This is quite a large range. Unfortunately, estimating output gaps is a very imprecise business. It is best not to claim more precision than can really be achieved. In any event, even if the cyclical component was relatively large, there was still a substantial structural component to New Brunswick's financial woes.

Let's next turn our attention to the future outlook.

6. Future Prospects: Budgeting Priorities and Risks

The projected deficit in the 2011-12 fiscal year is $448 million, and the increase in net debt $630 million. While these numbers are still large, they are a lot better than Don Drummond's projection of a doubling of the deficit in four years! To what can we attribute this improvement? Indeed, as summarized in the table below, they represent a significant improvement.

There are several factors. First, Drummond assumed that promised future income tax cuts would be implemented, whereas they were put on hold. This saved about

$280 million (according to the Department of Finance estimates contained in the 2009 Budget). Corporate income taxes were only lowered from 12 to 10% (instead of to 8%) saving another $28 million. This explains why the deficit didn't increase as Drummond predicted. That the deficit in fact decreased was due to about an equal combination of more revenues and lower expenditures.

Gasoline taxes were raised a few cents a litre, which brought in an extra $47 million. Tobacco taxes were raised by 5 cents a cigarette (or $1.31 a pack), bringing in an extra $18.5 million. Finally, the biggest pleasant surprise was that NB Power – the asset that was nearly sold – brought in an unexpected $65 million. These three items alone account for an extra $128 million. In total, revenues were higher by nearly $160 million.

On the expenditure side, the government is projecting to reduce its ordinary expenses by $62.8 million. Capital spending that enters the income statement (because it comprises of items less than $100,000) is projected to fall by $34.4 million, and spending on special operating accounts to fall by $50.6 million.[21] These decreases will be offset by higher amortization of tangible capital assets. The total decrease in expenditures on the income statement is projected to be $131 million.

The projected extra revenue of $159 million, coupled with the projected lower spending of $131 million is projected to reduce the deficit by $292 million to $448 million. Coupled with less spending on tangible capital assets of $314 million the increase in net debt is projected to be $604 million less than in 2010-11.

This description just scratches the surface, and raises many more questions. First, are these projections realistic? And if so, are the measures undertaken enough to ensure the province maintains its financial viability?

Table 4: Explaining The Improved Performance In 2011-12 (Million)

REVENUES	2010-11	2011-12	Change in Deficit
Tobacco tax rev	126.8	145.3	18.5
Gas tax	202.8	247.3	44.5
NB Power	0	65	65.0
Sum of tobacco, gas, and NB Power	329.6	457.6	+128
Total Revenue on Income Statement	7,482.7	7,642.1	+159.3
EXPENSES			
Total Expenses on Ordinary Account	7,601.5	7,538.7	-62.8
Capital Spending on the Income Statement	104.9	70.5	-34.4
Special Operating Account	136.6	85.9	-50.6
Amortization of Tangible Capital Assets	307.7	327.9	+20.2
Total Expense on Income statement	8,222.6	8,090.9	-131.7
DEFICIT	740	448	-292
CAPITAL ACCOUNT			
Acquisition of Tangible Capital Assets	836.8	522.4	-314.5
Increase in Net Debt	1,234	630	-604

Cutting Expenditures: The government announced that spending reductions would be achieved by cutting all departments except health by 2%, while health would be allowed to increase by 3%. Since health is 37% of total program spending (total spending minus debt service), such changes would be expected to yield a net fall of 0.15% in total program spending. Even though total program spending was nearly $7 billion in 2010-11 numbers, this tiny percentage reduction should have yielded savings of only $11.5 million on the ordinary account. In fact, as we see in the preceding Table, ordinary account spending reductions are projected to be some $62.8 million. How is this to be done?

Table 5 compares the spending by department, focusing only on those departments whose budget changes by more than $10 million. There are many surprises. First, the budget for education is not being cut. The budget for primary, secondary, and early childhood development is projected to increase by 1.8%. The budget for universities (MPHEC) is increasing by 3.9%. Only the budget for "post-secondary, training and labour" (which comprises mostly the community colleges) is being cut (by 3.2%). Overall, the total education budget is projected to increase by nearly 1.4%.

Second, the budget for health is not budgeted for a 3% increase, but only a 1.6% increase.[22]

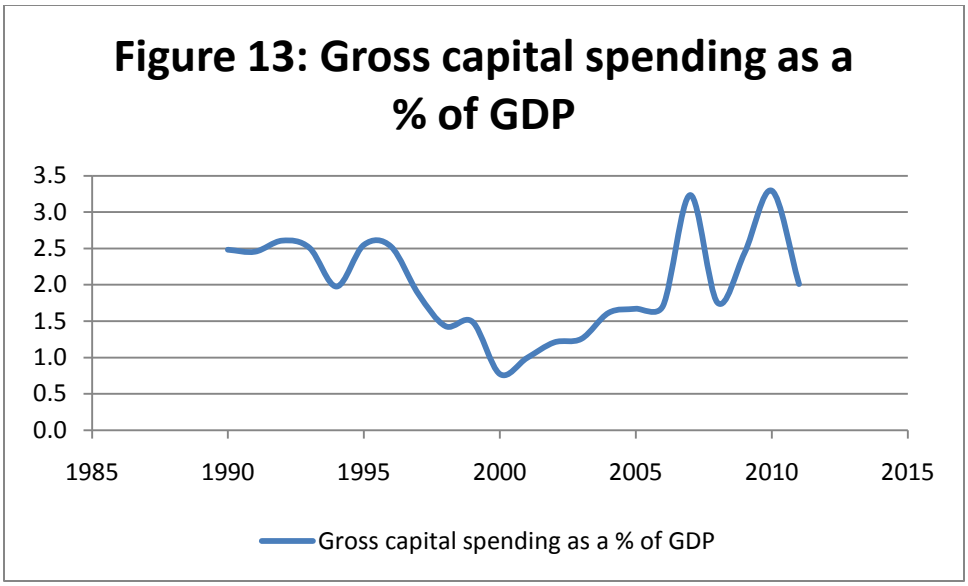
Third, $30 million is projected to be saved from the "public safety" budget. (It is worth mentioning that the public safety budget for 2011-12 was about $35 above initial projections. Perhaps actual spending will again be $30 million above projections?)

Fourth, by far the bulk of the savings is projected to be found from "General government". A whopping $114.6 million is to be saved from this category, which represents a forecasted reduction of nearly 18% of its budget! No details have been given as to how this huge reduction is to be achieved.

Table 5: Major Spending Changes from 2010-11 to 2011-12				
	2010-11	2011-12	Change	Percent Change
General Government	762.48	647.85	-114.63	-17.7
Health	2,493	2,534	41.79	1.6
MPHEC	263.53	274.1	10.57	3.9
Post Secondary, training & labour	314.1	304.03	-10.07	-3.2
Education & early childhood	1033.4	1052.2	18.8	1.8
Public Safety	165.8	135.8	-30	-18.1
Regional Development Corp	131.2	74.2	-57	-43.4
Debt Service	642.4	679.9	37.5	5.8
Social Development	978	1019	41	4.2
Sum of these items			-62	

Increased Revenues: Most commentators estimate that future growth will be about 1% in real terms. Given the Bank of Canada's 2% inflation target, nominal GDP growth should be about 3%. If revenues grow proportionally with the economy, a three percent increase should increase revenues by about $230 million. The projected increase in revenues is a more modest $159.3 million. This should be achievable, and seems to be on the conservative side.

Decreased capital spending: Table 4 shows a dramatic reduction in the acquisition of tangible assets – in capital spending – of some $314.5 million. One worry is that the province might balance its books, but run down its infrastructure. If so, it would not be an attractive place for businesses or young families. To get a sense of what "normal' capital spending would be, we summed capital spending on the income statement and acquisition of tangible assets to get a measure of gross capital spending, that post-2004, is compatible with gross capital spending prior to 2004. Figure 13 expresses this as a percentage of GDP.



Average gross capital spending over the period (1990 to 2011) is 2% of GDP. It appears that the decrease in capital spending in the 2011-12 budget is actually bringing it back to its historical average. This suggests that the lower capital spending is sustainable.

Future prospects: The stated objective of the Conservative government of David Alward is to allow health spending to increase by 3%, while reducing other spending by 2%. This suggests breaking spending into three categories: health spending (which will increase by 3%); debt service payments (which will follow a path dictated by the accumulation of debt and interest rates); and all other spending (which the government aims to decrease by 2%). We assume the average interest rate on government debt stays constant (stated as a 'simple' interest rate, it is currently around 6.6%). We further assume that capital spending stays at 2% of GDP, and that revenues – like GDP itself – increase by 3%. We assume that the government meets its 2011-12 target, and make projections from there.

Perhaps these are very rosy assumptions. They suggest that the deficit will turn to surplus by 2013-14, and net debt will begin to fall the following year.

Prognosis: It is going to be hard to restrain spending. Three years of 2% cuts are going to hurt. Already school boards are having to lay off hundreds of non-contract employees – teaching assistants, and teacher mentors. This is particularly hard on

the French language school board, since it is the only school board enjoying increasing enrolments.

If instead we modified our assumptions to allow spending on non-health and non-debt service payments to stay constant (instead of a 2% decrease year over year), this would push back the arrival of surplus budgets by just two years. In this case, surpluses would arrive in the 2015-16 budget year (and net debt would begin to fall in absolute terms the following year).

On the other hand, allowing non-health program spending to increase by 2% a year would push back surpluses until 2022.

In a nutshell, it is hard not to reiterate what has been said so often before in discussing the policy of lowering tax rates introduced by the previous Liberal government under Shaun Graham. That tax reduction, which wasn't rolled back, cost the province $143 million in the 2009-10 fiscal year. It's loss gets bigger as incomes grow through time. One can't help but wonder why the province is forced to lay off teachers, and teacher's assistants, to implement a tax reform that is regressive in nature.

APPENDIX 1: A Quick Primer on Equalization

There are five tax bases: personal income, business income, sales, property and natural resources. Natural resource revenue is treated differently to the others. A province can opt to have its natural resource revenue omitted if that works to its advantage. For the other four tax bases, equalization payment is calculated as:

NB's entitlement = t_C {$PCTB_C$ – $PCTB_{NB}$ } POP_{NB}

Where t_C = the average tax rate in Canada; $PCTB_C$ is the per capita tax base in Canada; $PCTB_{NB}$ is the per capita tax base in New Brunswick; and POP_{NB} is the population of New Brunswick.

To really understand the implications of this formula, consider the following example that focuses on income taxes. Suppose (taxable) personal income per capita in Canada as a whole is $25,000; while (taxable) personal income per capita in New Brunswick is only $20,000. Since New Brunswick's fiscal capacity is lower, it is entitled to equalization payments.

The per capita difference is $5,000, which is multiplied by the average tax rate in Canada as whole. Suppose the average personal income tax rate in Canada as a whole (t_C) is 15% or 0.15. Then the per capita payment would be $750. This is then multiplied by NB's population, which is about 750,000 people. In this case NB's entitlement for the personal income tax component of equalization would be $562.5 million calculated as: 0.15 ($25,000 - $20,000) 750,000 = $562.5 million

If New Brunswick's per capita tax base increased relative to the Canadian average, its equalization payments would fall. How much would they fall? Suppose enough of the tax reforms are implemented that New Brunswick has lower tax rates than the Canadian average. This means that any increase in our tax base will bring in less own-source revenue than we lose in equalization. Growth in New Brunswick's tax base makes its deficit would get worse!

For example, suppose New Brunswick's average tax rate on personal income is 11%, while the Canadian average is 15%. Further suppose that the tax cuts succeed

in growing the economy, and growing the tax base. Assume that (taxable) personal income per capita increases in New Brunswick from $20,000 to $22,000.

This will bring in *more own-source revenue* = $2,000 x 0.11 x 750,000 = $165 million. However, it will reduce the equalization payments, which are paid at the higher Canadian average tax rate. Loss in equalization payments = $2,000 x 0.15 x 750,000 = $225 million. This implies a net loss of $60 million.

Since New Brunswick has one of the lowest corporate income tax rates in Canada, then relative growth of corporate income tax base would also increase New Brunswick's deficit in the same way.

The point is that having lower taxes than the rest of Canada cannot generate growth that will eliminate the deficit – not as long as the province receives equalization payments, which over the past three years have averaged $1.6 billion per annum.

Even if New Brunswick became a growth hub it would continue to have worsening deficits until equalization payments were reduced to zero. At that point, further growth would start to reduce the deficit. However, $1.6 billion is quite a mountain to plough through! Until then, the only way to reduce the deficit is to raise revenue or cut expenditures. (Note that equalization is calculated on the difference in fiscal capacity that existed 3, 4 and 5 years ago. So, this problem shows up with a time lag.)

It may be argued that lower taxes would induce in-migration, and the population increase – ceteris paribus – would tend to increase equalization payments. However, equalization payments are calculated on a per capita basis because, in theory at least, the cost of providing public services increases with the size of the population. (It is an interesting question as to whether this cost increases proportionally with population, or whether there are economies of scale. This is a question to which we will return.)

This is not to deny that, in general, growth *is* good for revenues – as well as jobs and incomes and general wellbeing. But the issue is the effect of tax reductions on

growth and revenue. The point is that even if the tax reductions did generate more growth – and to many this is a huge 'if' – the extra growth generated would reduce equalization payments proportionately. And if the province ends up having lower tax rates than the rest of Canada, the extra growth generated would reduce equalization payments by more than one for one.

In a nutshell, a 'have-not' province cannot make up the lost revenues from tax reductions by generating extra growth.

Finally, we acknowledge that if New Brunswick (or any 'have-not' province) grows at the same rate as the rest of Canada, its equalization payments would stay the same, while its own source revenue would grow. On net it would have more revenues. (Similarly, if New Brunswick didn't grow at all, but the rest of Canada did grow, its equalization payments would go up, while its own source revenue would stay the same. On net New Brunswick would have more revenue.)

These discussions of relative rates of growth lead to us considering the long run performance of the New Brunswick and Canadian economies. In particular, we need to address the question: how much of the current problem is due to recession?

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ENDNOTES

[1] "A Discussion Paper on New Brunswick's Tax System", June 2008, Department of Finance, Government of New Brunswick. http://www.gnb.ca/0162/New_Brunswick_Tax_System/Discussion_Paper-English.pdf

[2] For example, Toby Sanger (2008) "Pig in a Poke: New Brunswick's Discussion Paper on Tax Reform" http://cupe.ca/taxation/nb-tax-reform

[3] The four-bracket, four-rate structure for personal income tax (of 10%, 15½%, 17%, and 18%) was to be replaced with a two-bracket, two-rate structure of 9% (for incomes below $35,000) and 12%. Income taxes on large corporations were to be lowered from 13% to 8%.

[4] Donald Savoie, holder of the Canada Research Chair in Public Administration and Governance at the Université de Moncton, said: "I can hardly overstate the importance of the challenge at hand and its implications." Craig Brett, holder of the Canada Research Chair in Canadian Public Policy at Mount Allison University, compared New Brunswick's situation to that of the Federal government faced in the 1990s. Pierre Marcel Desjardins, a specialist in regional economic development at the Université de Moncton, warned that NB's "current path is not sustainable and could unravel into a financial crisis very quickly." Tony Myatt, during the run-up to the September 2010 provincial election, served as NB NDP Finance Critic, and emphasized the high debt and deficits as a policy problem [Myatt, A., "The Elephant in the Room", New Brunswick *Telegraph Journal*, July 3, 2010]. David Murrell also wrote two op-ed essays in the New Brunswick Telegraph Journal on the topic.

[5] Finance Canada and the C.D. Howe Institute compare Marginal Effective Tax Rates (METRs) on capital and labour across provinces. One advantage over other provinces is that New Brunswick adopted the harmonized sales tax (HST). As a valued-added tax, this exempts business inputs. Second, NB's corporate income tax rates in 2008 were already lower than several other Provinces. Including the federal government's Atlantic Investment Tax Credit made the METR on capital 1.9%. Excluding it (since some corporations may not have sufficient taxable income to take full advantage of it) NB's METR on capital was 22.5% for 2008, still well below the 28.8% provincial aggregate. (In 2007 the simple average of the METRs on capital for 30 OECD countries was 20.8%.) For labour, N.B.'s METR was the fourth lowest among the Provinces, benefitting from the absence of a payroll tax. See Mary Webb (2010) and Chen and Mintz (2008).

[6] The Conservative Party's promises totalled an extra $200 million of spending.

[7] The address was at a conference organized by the New Brunswick Business Council to discuss NB's Future, in November 2010. The projections were are contained the paper by Drummond, Don and Sonya Gulati (2010), "New Brunswick Faces Tough Fiscal Choices Ahead", TD Bank Financial Group, Special Report, November: http://www.td.com/economics/special/dd1110_NB.pdf

[8] The university did not provide a transcript of Currie's remarks. However, the CBC (amongst others) reported it. See "UNB chancellor calls N.B. 'a failing province', http://tinyurl.com/3o9u5rs

[9] It is worth noting (for those not familiar with New Brunswick) that the Irving family owns every single English language newspaper and magazine in the province. The main provincial newspaper, The Telegraph Journal, published "It's Unsustainable" on March 18th 2011 (republished by the Frontier Centre, http://www.fcpp.org/publication.php/3692). On the same date they also published "Examining the True Size of the civil service" (written by Shawn Berry). The next day they published "Bloated Services serve no-one" along with a two page spread on the growth of the civil service entitled "A storied – and modest – history" (written by Chris Morries)

[10] During the first 10 years, $100 million was amortized. That leaves $300 million to be spread over the remaining 10 years of its new shorter lifespan, or $30 million a year. Since $10 million was already being allotted, the deficit would increase by $20 million.

[11] In particular, when the province was considering selling the utility to Quebec Hydro in 2009 (the sale was eventually abandoned in 2010), Premier Shaun Graham argued that this would reduce the province's debt by about $4.6 billion. On the other hand, the auditor general, Mike Ferguson, stated "Actually there will be no impact on the province's net debt because the province has always been deducting NB Power's debt anyway and saying that's not something the taxpayers have to pay." http://tinyurl.com/3ppqu4d

[12] Using the New Brunswick Public Accounts 2010, we see this on the statement of financial position, page 21, half way down the page just under "Funded Debt" (see Note 11). There "Borrowing for New Brunswick Electric Finance Corporation" is subtracted from the Net Debt. This amount is $4.217 billion.

[13] Still on page 21 of the 2010 Public Accounts, under "Financial Assets" the fifth item down (explained in Schedule 6) is "investments". The number there is a negative $174.4 million for 2010. This is an aggregate number. It is explained in Schedule 6, on page 61. NB Power was responsible for a negative $226.5 million. However, offsetting this were positive entries from NB Liquor, NB securities, Lotteries and Gaming, and Municipal Finance, so that the total loss was brought up to negative $ 174.4 million. If we want to dig further into the negative equity position of NB Power, we go to page 36. The fourth column over is NB Power. The appropriate row is called "Total Equity" and for NB Power we see a negative $226.5 million.

[14] One could argue that this negative impact on the statement of net debt is entirely appropriate. While no new borrowing has taken place *so far*, it will have to take place when the dam is rebuilt…ten years sooner than anticipated.

[15] In the notes to Cansim Table 385-0014.

[16] The net debt data was published in Table 385-0014, and the provincial spending and revenue data was published in Table 385-0001.

[17] This is an internationally accepted standard and fully integrated with the United Nation's System of National Accounts.

[18] This is series v151677 from Table 385-0014.

[19]This helps explain why the Public Accounts published number for the "change in the net debt" did not always equal the first difference of the official published number for "net debt". In particular, summing the two series yielded a difference of over $2 billion between 1982 and 2011. Most of this discrepancy arose in 1992 as a result of adding the pension liabilities in 1994 and back-casting to 1992. This accounted for $1.4 billion of the discrepancy. Over the years, other discrepancies arise as a result of reclassifying certain inventories and "pre-paids" as non-financial assets rather than financial assets. For example, this had the effect of increasing net debt by $166 million, in 2004. Other anomalies can arise as a result of changes in the expected lifetime of capital assets, as explained in the main body of the paper.

[20] The Federal payments were "harmonization transitional payments". These were$95 million in 1997-98, $89 million in 1998-99, and $181 million in 1999-2000.

[21] For those that really want to understand the public accounts, it is worth mentioning two other accounts. Special Purpose Accounts (SPA's) came into existence in 1990-91, and Special Operating Agency accounts (SOA's) in 1993-94. The former (SPA's) are moneys raised from specially-defined revenue sources that must be, by law, used for pre-designated purposes. In Ontario, for example, the government received $153,333 through the sale of wild turkey hunting licences. This money was used specifically for the monitoring of the wild turkey hunt (Balcomb, 2005). New Brunswick examples of SPAs are the Trail Management Trust Fund, Sport Development Trust Fund, among others. Examples of SOAs are Canada-New Brunswick agreements such as that emanating from the Building Canada Fund, the Canada-New Brunswick Gas Transfer Fund, and so forth. Some, but not all, of these are administered by Government of New Brunswick line departments. A full listing of SPAs and SOAs can be found in

the Government of New Brunswick annual main estimates. See, for example, Government of New Brunswick (2011a). In total then, revenue and expenditure data, in New Brunswick budget and public accounts, is separated into four accounts: the ordinary accounts, capital accounts, special purpose accounts (SPAs) and special operating agencies (SOAs).

[22] Perhaps the government's stated objective of a 3% increase in health spending includes capital spending. The numbers in Table 5 do not include capital spending, nor the spending that comes from the "Special Purpose Account"