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Growth, Austerity and the Future of Nova Scotian Prosperity

Jordan Brennan

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Summary

SINCE ITS ELECTION in 2013, the government of Nova Scotia has made balancing the budget its top priority. Although officials rarely use the term 'austerity' to describe their approach to fiscal policy, the choices the government has made in its allocation of funding for public services suggests a distinct reluctance to make meaningful investments in physical and social infrastructure. This report is an assessment of the appropriateness and effectiveness of 'austerity' measures in Nova Scotia. Rather than implementing an austerity program, this paper argues that what Nova Scotia really needs is sustainable economic development, good jobs and a sturdy social safety net. It finds that the government has misidentified the economic challenges facing the province, thus making austerity an ill-advised solution.

The current premier and his cabinet insist that budgetary deficits hamper the province's growth prospects and have spent three years trying to eliminate the deficit. According to the *Now or Never* report released by the One Nova Scotia coalition in 2014, the government should be aiming for a debt-to-GDP ratio of 30 percent, adding more momentum to the provincial obsession with balancing the books. And while there is no theoretical or empirical justification for the 30 percent target, the government seems determined to chase it with little regard for the cost, which will be measured in terms of the province's economic and social health.

The key findings of this report are, first, Nova Scotia is not actually in need of austerity because the budgetary deficit is small and shrinking, the provincial debt load is manageable and debt servicing costs are at a quarter-

century low. Second, the effects of an austerity program would likely impair, not boost, economic growth, as the government seems to believe. Third, the actual economic problems afflicting Nova Scotia's economy, namely chronically weak job creation and challenging demographic trends, would worsen under an austerity program.

In coming to these conclusions, the report tested some of the current government's major claims and found:

- Must the province avoid deficits at all costs? No. Nova Scotia's deficit spending is not out-of-pace with other Canadian jurisdictions. Rather, new economic analysis suggests deficits arising from public investment can boost long-run economic performance.

- Is the province over-indebted and does this debt load pose a threat to future generations? No and No. Nova Scotia ranks in the top half of Canadian provinces in terms of its account balance. While there have been exaggerated claims about over-indebtedness, Nova Scotia's debt servicing charges are at a quarter-century low, and thus should not be of major concern for the next generation. Indeed, what is of concern is the needed investment in education and public infrastructure: will those investments be made now or will they be offloaded to future generations?

- Is public sector wage growth out of control? No. Public sector workers in Nova Scotia have seen poorer wage gains than their private sector counterparts and their public sector counterparts in other provinces. Nova Scotia should be concerned that it risks recruitment and retention of the workers needed to provide the quality public services that all Nova Scotians depend upon.

- Is public sector wage restraint and public spending cuts necessary? No. Public sector wage restraint and public sector cuts are neither fiscally necessary nor economically advisable. Rather, a program of austerity would exacerbate the government's fiscal condition and worsen overall economic performance.

The report closes by uncovering Nova Scotia's actual economic challenges, namely weak demographic and labour market trends and stagnant GDP growth. The province's working age population and its labour force are both shrinking, employment opportunities are receding and private sector job creation has been 'serially disappointing' (to use Bank of Canada Governor

Stephen Poloz's term). Indeed, it is a confluence of factors shapes growth, including working age population, labour force participation, employment (in both the private and public sectors) and job quality. It is not surprising then that GDP growth in Nova Scotia has slowed dramatically and income inequality is hovering at a four decade high. These latter challenges — demographics, growth and inequality — are what require attention.

Nova Scotians do face significant economic challenges, but excessive government spending and public sector compensation are not among them. Most importantly, austerity does not address the most significant challenge facing Nova Scotians — the need for good jobs.

1. Introduction

IN AUGUST 2015, Randy Delorey (Nova Scotia's Finance Minister) presented the Public Service Sustainability Mandate to public sector union leadership. Officially, the purpose of the mandate is to put the province on a 'sound financial footing'. However, by singling out public sector employee compensation as the source of the province's (alleged) fiscal woes, the government has indicated that it is preparing for a fight with its unionized and non-unionized employees. And while the government claims that it 'respects collective bargaining', it also threatens to trigger the Public Services Sustainability Act (which passed the House of Assembly in December of 2015) when 'actions by unions threaten the fiscal plan'.

Government documents are cloaked in cooperative and consultative language. Terms like 'flexibility', 'tough choices' and 'investing in things that matter' are used. Despite the conciliatory tone, it is difficult to reconcile the government's claim to respect 'meaningful collective bargaining' with its intention to dictate a new wage schedule on its employees. The wage framework proposed by the government over five years is 0 percent in years one and two, 1 percent in year three, 1.5 percent in year four and 0.5 percent in year five. In the five years leading up to 2015, inflation in Nova Scotia amounted to eight percent, so if history repeats itself a three percent nominal wage increase over five years will actually mean a five percent *reduction* in inflation-adjusted wages. In effect, the government wants to reduce its expenditure on the back of Nova Scotia's public sector employees. This is the real intention behind the Public Services Sustainability Act (PSSA).

Is the Nova Scotia government spending too much money? Presumably, if government spending is in line with government revenue, then by definition the government would not be spending 'too much'. That said, the very question of 'too much' ignores the fact that government provides essential services and funds them with taxes. So to say that the government is spending 'too much' is to say that Nova Scotians are receiving 'too much' in the way of education, health care, infrastructure and other services. This brings us to the heart of the matter: are Nova Scotia's economic and fiscal challenges to be found with public sector employee compensation? While not officially declaring a policy of austerity, the McNeil Government has imposed cutbacks on programs important to Nova Scotians and their economy. We must ask: do Nova Scotians need to endure a period of austerity to put their fiscal house in order?

This report answers this key question as follows. The next section explores emergent thinking around the growth effects of government spending. This section clarifies the function and consequences of sweeping cuts to public sector funding in historical and comparative perspective, using Greece in 2009–2015 and Canada in 1995–1999 as case studies. The third section compares government spending in Nova Scotia with other provinces and territories. The fourth section examines public indebtedness to assess whether Nova Scotia's debt load is too burdensome. The fifth section probes public sector compensation to determine if it is, as the government seems to imply, 'unsustainable'. The sixth section zeroes in on GDP growth, labour market trends and demographic developments. The seventh section summarizes the findings.

2. Why Austerity is a Self-Defeating Economic Strategy

THE POLITICS OF austerity can be loosely defined as reductions in government spending, a relative contraction of the public sphere or sharp increases in income and consumption taxes.[1] Mainstream economic thinking often suggests that a smaller, more restricted public sphere will lead to an enlarged, more dynamic private sphere.[2] While the OECD and the IMF are revisiting their views, many business and academic economists remain beholden to the view that successful economic development is contingent upon less State and more market. Citizens are told that by expecting and receiving less from their public institutions in the short term, which would presumably make those institutions financially 'sustainable', they can expect and receive more in the long term. Governments must cut, austerians continue, in order to heal. The present must be sacrificed for the sake of the future. According to this logic, if the private sector is weak, the public sector must be weakened as well. If business doesn't engage in job creation, government should not create jobs. And if job quality in the private sector has deteriorated, job quality in the public sector must also be subpar.

The vision associated with austerity politics, which is neither 'natural' nor borne out of necessity, is rooted in a number of highly questionable presumptions. Austerians presuppose that the private sector is dynamic, innov-

ative and productive, while the public sector is static, bureaucratic and parasitic. Business creates new value; government merely redistributes existing value. For these and other reasons, the public sector must be subordinate to the private sector. In its most extreme manifestations, austerians presuppose that because private enterprise is driven by the imperatives of the market, the common good itself will be achieved by the unfettered pursuit of profit.

Advocates of austerity politics often cite two examples: internationally, Greece 'proves' that austerity is the medicine sick patients must take, however distasteful, if they refuse to maintain healthy public finances; domestically, the Chretien-Martin Liberals' austerity program in the 1990s coincided with an economic expansion, which proves that austerity does not undermine growth (Crowley 2015). Both examples are misleading at best, if not fallacious. It must be stressed that in discussing Greece's fiscal challenges, the purpose is not to compare Nova Scotia with Greece. Nova Scotia's net debt-to-GDP ratio stands at 38 percent, while Greece is hovering around 180 percent. The fiscal position of the two jurisdictions is not similar.

The Greek case

The conventional narrative is that the Greek government borrowed excessive sums of money on the cheap to finance social programs and consumption patterns that the Greek people could ill afford (Nelson, Belkin and Mix 2011; Feldstein 2012). Eventually Greece's creditors got wise to the whole fiasco and, after numerous credit downgrades in the Fall of 2009 (which sent Greece's debt servicing costs through the roof), the country became insolvent and was compelled to accept its first (of multiple) bailout package. The bailouts were conditional upon a harsh batch of austerity policies, implemented in the 2011 (and subsequent) austerity budget. As punishment for their profligacy, the Greek people were forced to endure a period of belt-tightening, including massive cuts to public sector employment, cuts to government employee salaries and pensions, increased income and consumption taxes and the fire sale of public assets.

Officially, the structural reforms imposed on Greece by Brussels and Berlin were intended to 'solve' the country's debt problems by eliminating budgetary deficits and by the liberalizing the economy, which would create more favourable conditions for growth, and hence, fiscal sustainability. However, the austerity program has been such an utter failure that it has become difficult to avoid entertaining the idea that the purpose was

not to return Greece to fiscal health, but to punish it for its transgressions (Varoufakis 2015). In so doing, the Troika (the European Commission, European Central Bank and the International Monetary Fund) of lenders would set an example to any other country in the Eurozone that dared to defy the doctrine of 'sound finance' (including and especially balanced budgets).

After multiple bailouts and numerous austerity budgets, it is clear that Greece's fiscal capacity has worsened, not improved. In 2008, before the Great Recession took its toll, Greece's debt-to-GDP ratio stood at 118 percent.[3] In the ten years leading up to 2008, Greek government debt averaged 110 percent of GDP. Even though this figure was above the OECD average, it had been stable for the better part of a decade.[4] Then came the financial crisis of 2008–09 (generated, in part, by a deregulated U.S. financial system and the recklessness of Wall Street). Multiple rounds of austerity had the effect of reducing Greece's GDP, which made the country *less* capable of servicing its debt. Between 2008 and 2014, Greece's (inflation-adjusted) GDP plunged by nearly 30 percent and the debt-to-GDP ratio dramatically increased, rising from 118 to 179 percent.[5] This, of course, generated further credit downgrades and higher debt servicing costs.

Austerity failed to solve Greece's debt problems for a variety of reasons, but one of the chief causes was the demand by creditors to reduce government spending. The Greek Government was compelled to reduce employment and cut government employee salaries and pensions, which had the effect of shrinking its tax base, increasing the demand for social assistance and reducing consumer spending. By shrinking the government spending portion of GDP, the debt-to-GDP ratio became larger and thus less manageable. The reason is made plain by equation (1), which is one way of measuring national income:

$$(1) \quad Y = C + I + G + (X - M)$$

Where (Y) stands for GDP or aggregate demand; (C) stands for consumption, measured as household expenditure; (I) for investment, measured as business expenditure on fixed assets plus residential construction; (G) stands for overall government expenditure; (X) stands for exports; and (M) for imports. This basic identity tells us that the source of national income (Y) is, necessarily, the sum of expenditure by the household sector (C), the business sector (I), the public sector (G) and the external sector (X - M).

The implication of this accounting identity is that the demand to curtail government spending (G) had the effect of shrinking national income (Y), thus worsening Greece's debt-to-GDP ratio and making solvency even

less likely. In the context of weak aggregate demand and tremendous political and economic uncertainty, which would ordinarily translate into the contraction of both consumer spending (C) and business investment (I), the idea that reducing government spending would spur overall growth (Y) was fanciful, to put it politely (Smith 2016).

Another important consideration is the effect of fiscal multipliers, which researchers have found tend to be large in the context of sluggish growth (Blanchard and Leigh 2013). When a fiscal multiplier is positive, this means that the net increase in national income exceeds the amount actually spent by the government (net new GDP / government spending > 1). Government spending on things like infrastructure can generate new economic activity (which is then taxed, adding to government revenue) that would not have otherwise occurred. This is an additional reason why austerity measures not only fail to stimulate growth, but actually serve to undermine it.

The Canadian case

Closer to home, measures taken by the Chretien-Martin Liberals between 1995 and 1999 are often cited as proof of the positive economic impact of cuts to public spending. However, supporters of this thesis confuse correlation and causation. The relative prosperity of the mid- and late 1990s occurred in spite of Martin's austerity program, not because of it. In 1995, when Finance Minister Paul Martin tabled his austerity budget, the federal deficit was in excess of 20 percent of budgetary revenue.[6] By the 1997 fiscal year, the federal government was running a two percent surplus. Even though program expenditures only fell in one fiscal year ($9.5 billion in 1995–96) and grew in absolute terms in every other year, the Chretien-Martin Liberals managed to reduce the federal program expenditure share of GDP by three percentage points between 1995 and 1999. If austerity undermines growth, why didn't these cuts trigger a recession?

The short answer: the reduction in government spending came in the context of strong aggregate demand alongside falling interest rates and debt servicing costs (see the Fiscal Reference Tables and Osberg 2001 for a discussion). Net exports (exports minus imports) were surging in the 1990s on account of a highly devalued Canadian dollar, business investment was increasing and consumer spending was growing. In terms of equation (1), then, if (C) + (I) + (X - M) are all positive, it may be possible to shrink (G) and still have national income (Y) grow.

What's more, while the federal government busied itself with cutbacks, the provincial and territorial governments were running substantial budgetary deficits (on a weighted average basis). Between 1995 and 1999, the dollar value of federal program expenditures decreased by 0.7 percent per year (on average), while provincial program expenditures increased by 2.7 percent per year (on average). If one wants to go into the business of slashing federal spending and not cause a recession, it is always best to have the other tiers of government and the other sectors of the economy (consumers, businesses and foreigners) increase their spending. It was the good fortune of the Chretien-Martin Liberals that their austerity program was timed with a period of exceptionally strong aggregate demand.

Modelling deficit spending and growth with sector financial balances

Heterodox economists have long questioned the mainstream consensus that deficit spending impairs growth. Mainstream economists often frown upon large, sustained government deficits because they 'crowd out' private investment. Because private enterprise has the benefit of market-driven price signals while government's do not, they claim the displacement of private sector investment by public sector spending reduces overall efficiency and undermines growth.[7] Heterodox economists utilize the 'sector financial balances' framework to recast the idea that deficit spending is a drag on growth.[8]

In the context of weak economic growth, when the government runs a budgetary surplus ('tightens its belt') it removes more money from private bank accounts through taxation than it puts into those accounts through its expenditures, thus plunging the private sector into deficit. Deficit spending has the opposite effect. When aggregate demand is weak, the government can tip the private sector into surplus by spending more than it taxes, which strengthens aggregate demand.

If economists had been willing to examine Greece's financial situation through a sector financial balances framework, they might have seen that deficit-financed growth could have ultimately revived the private sector and allowed both individual incomes and GDP to recover. Instead, European member states ignored the long-term well-being of the Greek economy and aimed for punitive bail-out conditions, forcing the sell-off of public services, gutting public pensions and pushing the country deeper into recession. In the Canadian case, although contemporary economists were comfortable

praising Martin's austerity measures in the name of eliminating the federal deficit, the economic conditions at the time blunted the impact of those cuts. Twenty years later, there is nothing left to serve as a buffer: the consequences of the Liberal austerity program of the 1990s are finally making themselves known. Funding for social assistance and post-secondary education has lagged behind inflation, leaving many of Canada's young people with very little in their pockets to spend or save.

In these two cases, the choice was made to cut back rather than invest. While one of these jurisdictions felt the negative impacts immediately, the other slid by under the cover provided by other economic factors. However, according to a sector financial balances framework, in the context of weak economic growth, focused public investment (including that which results in a deficit) injects much needed expenditure into the economy, which strengthens aggregate demand.

With this in mind, we ought to think critically about the fiscal situation in Nova Scotia: we need a clear diagnosis before we accept the seeming panacea offered by proponents of austerity. The next section takes stock of our current situation by attempting to answer some pressing questions: Is there, in fact, a fiscal crisis in Nova Scotia? How do we define 'crisis'? How should we measure it? What is meant by 'sustainability' and 'fiscal balance' and why should we pursue such things?

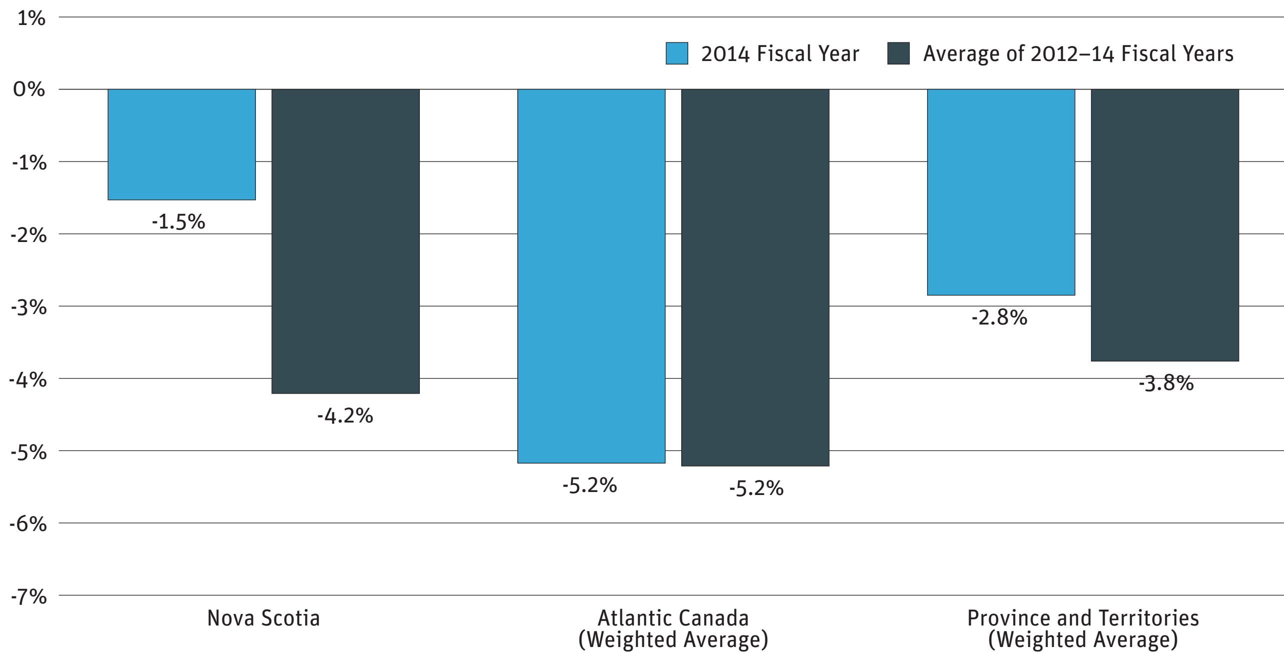
3. Setting the Record Straight on Nova Scotia’s Fiscal Position

In April of 2016, the McNeil Liberals tabled their third budget. Contrary to expectations, the forecasted account balance for the 2016–17 fiscal year turned out to be a $127.4 million dollar *surplus* ($17 million after shifting funds to the Provincial Health Complex), and that includes debt servicing charges.[9] What’s more, the government estimates that surpluses will grow over the next four years, rising to $132.5 million by 2019.[10]

These fiscal facts lay to rest any notion that public sector spending levels in Nova Scotia are out of control. But let’s cast our gaze backwards to assess if, apart from the strong fiscal position the Nova Scotia government is currently in, there was a need in the recent past to rein in spending. In the 2015 fiscal year, the government estimates that its deficit was $71.2 million. The deficit was even larger in previous years: in 2014 it was $144 million and in 2013 it was $677 million (the latter figure was inflated by a large one-time pension valuation adjustment). These numbers may sound high, but let’s put them in context.

Figure 1 compares the budgetary deficit in Nova Scotia with the weighted average of the Atlantic Canada provinces and the weighted average of all 13 provinces and territories.[11] The blue bars capture the 2014 fiscal year (the most recent data year in the Fiscal Reference Tables) and the grey bars

FIGURE 1 Budetary Deficits as a Percent of Total Government Revenue



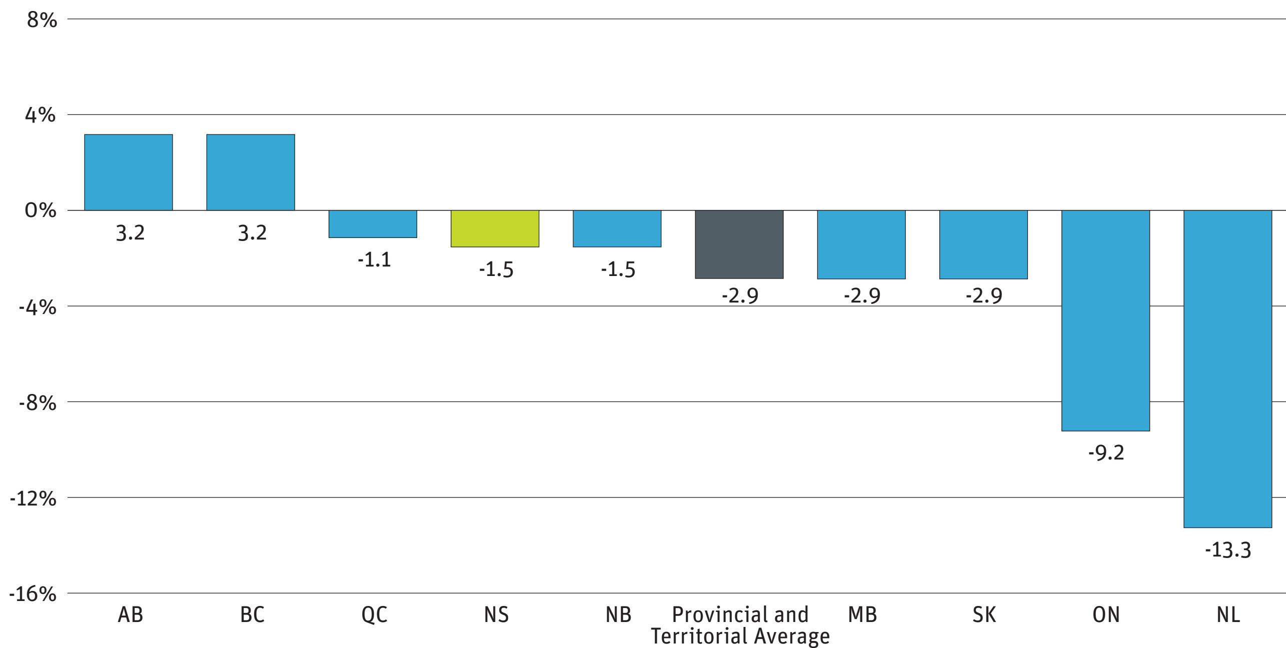
Source Fiscal Reference Tables 18–21, 31.

capture the average of the 2012–2014 fiscal years. Even when Nova Scotia ran a $144 million dollar deficit in 2014, it only amounted to 1.5 percent of revenue, which put it well below the Atlantic Canada average (5.2 percent) and the federation average (2.8 percent). In the three years leading up to 2014, Nova Scotia's deficit averaged 4.2 percent, which was between the Atlantic average (5.2 percent) and the federation average (3.8 percent). These facts tell us that Nova Scotia's budgetary situation, even in its deficit period, was comparatively strong.

Figure 2 reinforces this finding by plotting the account balance as a percent of revenue for each of the ten provinces and the weighted average of the provinces and territories for the 2014 fiscal year. Nova Scotia is highlighted in green and the provincial and territorial average is highlighted in dark blue.

Even in the 2014 fiscal year, when the province ran a $144 million deficit, Nova Scotia's budgetary position was better than all other provinces except Alberta and British Columbia (where the government was in surplus) and Quebec. At 1.5 percent of revenue, Nova Scotia's deficit was one-half the weighted average of all 13 provinces and territories, which stood at 2.9 percent. The claim that Nova Scotia's public finances are/were in rough shape

FIGURE 2 Provincial Deficits as a Percentage of Total Revenue: 2014–15 Fiscal Year



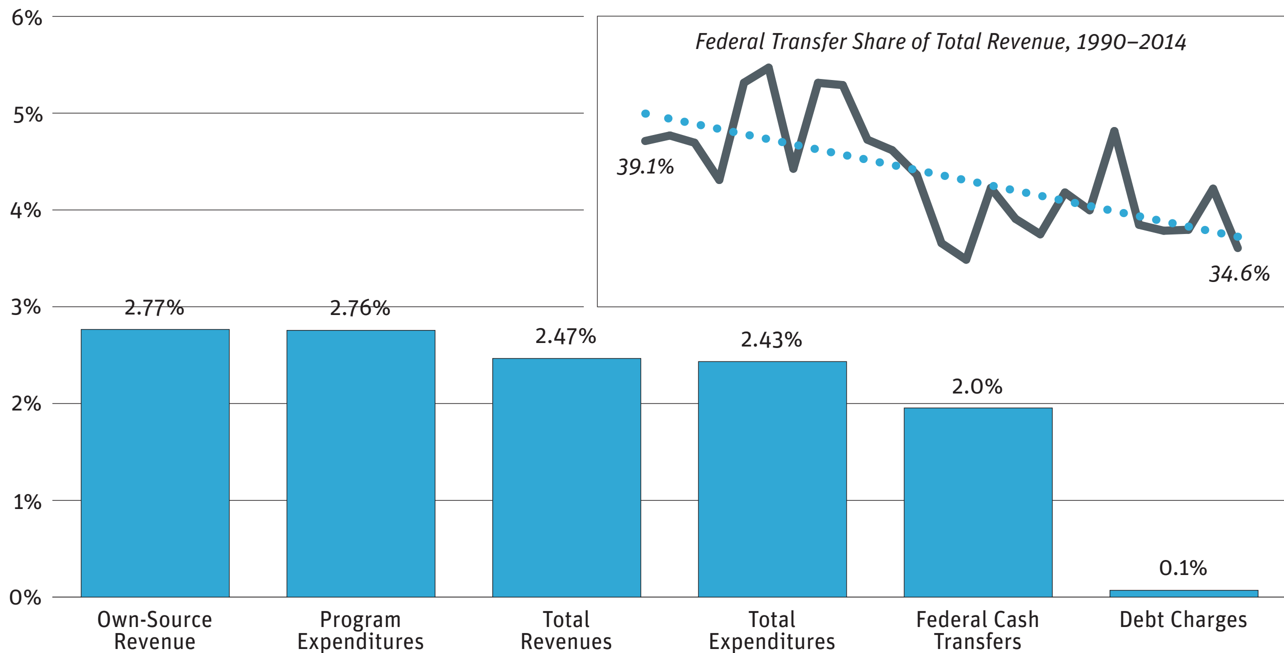
Source Fiscal Reference Tables 18–31.

is not borne out by a comparison with peer jurisdictions. Nova Scotia was in the top half of the federation. Significantly, Nova Scotia ran a smaller deficit than the other three Atlantic provinces, which have similar demographic and industrial structures.

The long-term 'sustainability' of Nova Scotia's public finances is further confirmed by the facts in *Figure 3*, which computes the average inflation-adjusted rate of growth between 1990 and 2014 of three revenue streams — own-source revenues, federal cash transfers and total revenues — and three expenditures — program expenditures, debt charges and total expenditures. The inset chart shows the proportion of total revenues accounted for by federal cash transfers (with a trend line running through the series). *Figure 3* tells us three things of fiscal significance. First, own-source revenues have grown faster than program expenditures, which, apart from actual levels, is at least suggestive of the *operational* sustainability of public spending levels.

Second, total revenues (green bar), which include federal cash transfers, have grown faster than total expenditures (red bar), which includes debt servicing charges. This fact (again, apart from the actual levels) is suggestive of the *overall* sustainability of public spending in Nova Scotia. The

FIGURE 3 Nova Scotia's Revenue and Expenditure Streams: Average Growth Rate, 1990–2014



Source Fiscal Reference Table 20

positive spread between total revenues and total expenditures is partially *despite* the fact that federal cash transfers have been growing more slowly than own-source revenues, and partially *because of* the fact that debt charges have been growing slower than program expenditures.

Third and finally, the federal cash transfer share of budgetary revenue has trended downward over the past quarter-century. In 2014, the cash transfer share of revenue amounted to 35 percent, down from 42 percent in 1995 (more on this when we examine Nova Scotia's debt load). This means that, despite significantly lower proportional funding from Ottawa, Nova Scotia has kept its overall spending commitments below its own-source revenue streams. Ottawa is not 'propping up' what would otherwise be unsustainable spending levels. On the contrary, the federal government is playing a smaller role in Nova Scotia's fiscal situation than in the past. In a similar vein, federal government income and other taxes extracted from Nova Scotia *exceed* federal cash transfers to the province by roughly one-quarter, which eliminates the notion that the federal government is bolstering the fiscal position of Nova Scotia (Bradfield 2014).

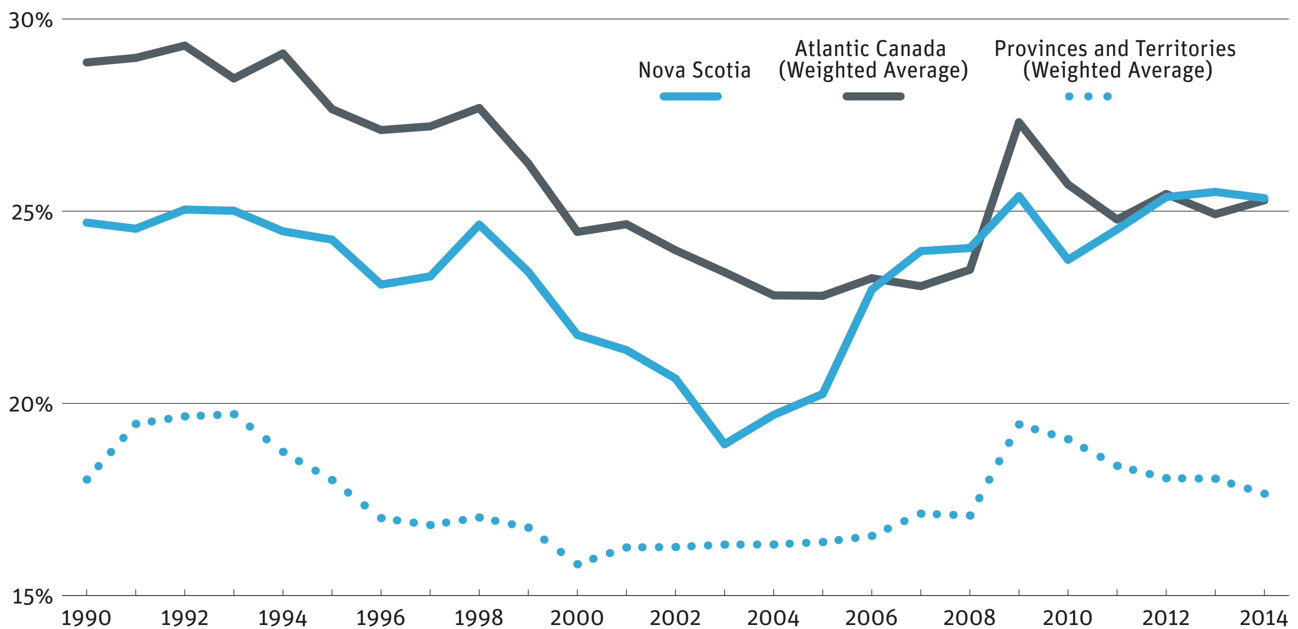
Some might argue that the presence, temporary or otherwise, of a budgetary surplus in Nova Scotia does not get to the root of the province's fiscal problems. Critics may argue that even though Nova Scotia has moved from a deficit position in 2011–2015 fiscal years to an anticipated surplus in the 2016 fiscal year, the government share of overall economic activity has reached a quarter-century high (thus raising the spectre of 'big government'), and correspondingly, the *absolute* debt load has reached an all-time high. Let's examine these fears to assess if they have any merit.

Figure 4 compares the government expenditure share of GDP in Nova Scotia, Atlantic Canada and the weighted average in all thirteen provinces and territories over the past quarter-century. For demographic and industrial reasons, the government share of economic activity is larger in Atlantic Canada than the rest of the country (which is why the light and dark blue lines are above the dotted line). Also not surprising, all three series tend to move in the same direction, having trended downward from the late 1990s onward before trending sharply upward during the Great Recession of 2008–09. What seems to be unique about Nova Scotia is the date of the inflection point: between 1990 and 2003 the government share of GDP tended to fall; but after 2003, government spending became relatively larger. Why?

The simple (and arithmetically unavoidable) answer is two-fold: the average rate of growth of government spending — the numerator — increased in the period after 2003 (compared to the preceding 13 years), and there was a marked slowdown in the average GDP growth rate — the denominator — which fell from two percent between 1990 and 2003 to less than one percent between 2003 and 2014, the combination of which helped make the government share of GDP rise. So government spending has become relatively larger in Nova Scotia, in part because of spending increases, but also because of chronically weak economic growth. Despite this shift, Nova Scotia's public spending is in line with the Atlantic Canada average. The real issue is not spending, but rather weak economic growth which is where the real focus of government should be.

This implies that there are two stories in Nova Scotia's fiscal world: an increase in government spending and slower GDP growth. Given this, it is not at all clear that the 'solution' is slower public sector growth. The more likely story here is that faster growth in the public sector helped mask the serially disappointing private sector growth. The call for public sector restraint would worsen the overall growth picture, not improve it (more on this in section six). Even stalwarts of the free market approach to development such as the OECD and the IMF have, after producing multi-country studies,

FIGURE 4 Total Government Expenditure as a Percent of GDP, 1990–2014



Source Government expenditure from Fiscal Reference Tables 18–21, 32; GDP from Cansim Table 384-0038.

concluded that austerity (and associated neoliberal policies) do more harm than good (see Mann 2016 and Ostry *et al.* 2016).

There is no way to spin the facts in Figures 1–4 to suggest that public spending has grown too fast in Nova Scotia or needs to be 'reined in'. Nova Scotia has more fiscal room than other Atlantic provinces, and it is in the top half of the Canadian federation when it comes to its account balance.[12] What's more, the province's revenue streams have grown faster than expenditures, which is another way of viewing overall fiscal sustainability.

Now, about that public debt: are Nova Scotians borrowing too much? Are they 'living beyond their means', as the saying goes?

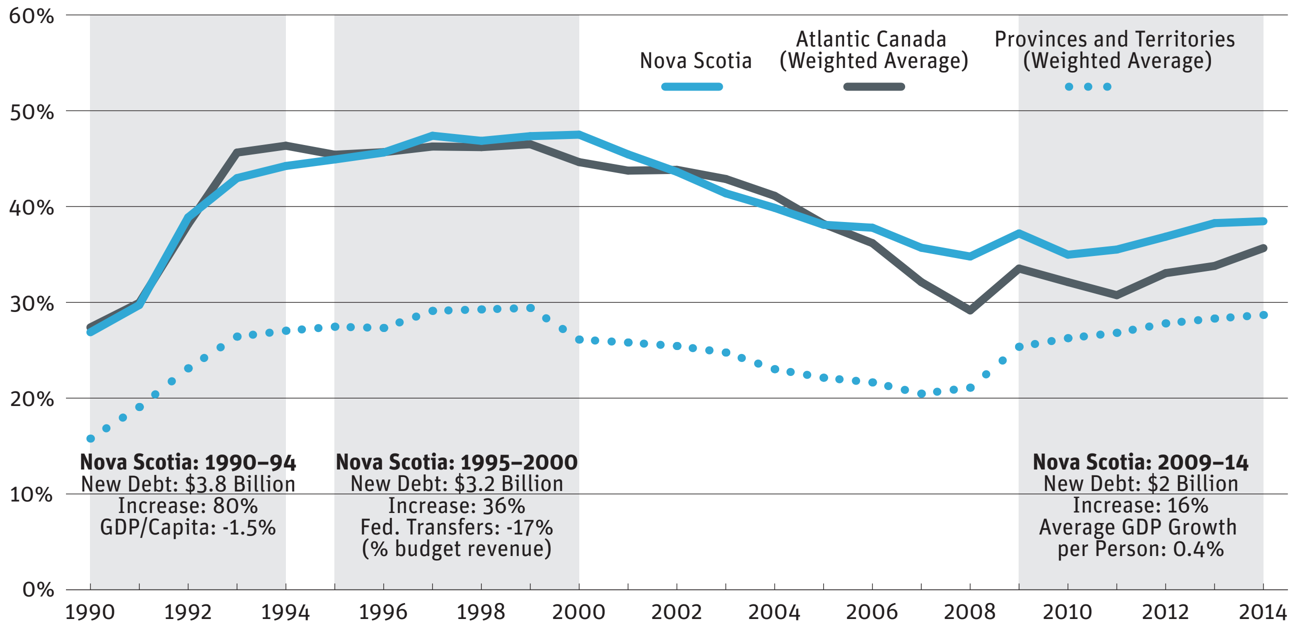
4. Nova Scotia's Debt in Perspective

IN THE 2014 fiscal year, Nova Scotia's net public debt surpassed $15 billion.[13] Jacques Lapointe, the auditor general, issued dire warnings about the 'considerable burden' that future generations of Nova Scotians will be forced to endure because of heavy public indebtedness (Canadian Press 2014a). Lapointe invoked the false analogy that the public debt amounts to $15,950 per inhabitant ('false' because there is no clear reason why the debt should fall equally on all inhabitants of Nova Scotia, unless everyone has an equal share in the province's assets). Indeed, $15 billion may sound high for a province that has fewer than one million inhabitants, but let's put these figures in context.

Figure 5 plots net provincial public debt as a percent of GDP in Nova Scotia, Atlantic Canada and the average of all thirteen provinces and territories over the past quarter-century.[14] Once again, Atlantic Canada is above the average of the federation, but all three series follow the same trajectory. At 38 percent of GDP, Nova Scotia's debt load is above the Atlantic and federation averages, but it is significantly below its level in 2000, when it had reached 48 percent of GDP. It is worth examining where this $15 billion in public debt came from and the purposes that it served. Are the people of Nova Scotia 'addicted to debt'?

The grey shaded areas in *Figure 5* outline the periods when Nova Scotia added to its debt load. In the prolonged recession of 1990–94, for ex-

FIGURE 5 Net Debt as a Percent of GDP, 1990–2014



Source Net debt from Fiscal Reference Tables 18-21, 32; GDP from Cansim Table 384-0038.

ample, net debt increased by 80 percent (nearly doubling from $4.7 to $8.5 billion). So was it government profligacy that drove the increase in public debt? Hardly. Total program expenditures over this four year period only increased by three percent (without adjusting for inflation). The new debt was taken on largely to service existing debt, because debt servicing charges had increased by 36 percent over this period. Nova Scotia did *not* become more indebted because it was spending more on programs (although doing so might have made the recession of the early 1990s less punishing).

In the period between 1995 and 2000, Nova Scotia increased its debt by 36 percent (or $3.2 billion). Once again, it wasn't 'reckless' new program expenditures that drove the province further into indebtedness. The Chretien-Martin Liberals in Ottawa had begun a period of austerity, which included a dramatic reduction in cash transfers to the provinces. Provincial program expenditures in Nova Scotia over this period actually declined in relative terms, having fallen from 20 percent of GDP in 1995 to 17 percent by 2000.

The need for new debt was driven largely by the decrease in federal cash transfer payments, which plunged by 10 percent of budgetary revenue. In other words, because Ottawa was desperate to balance its books, the provinces were compelled to take on more debt. This was hardly a sound fiscal

strategy by Ottawa, but the Chretien-Martin Liberals were celebrated in the business press, even though they had effectively downloaded their responsibilities onto the provinces.

This brings us to the recent past. Between 2009 and 2014, the provincial debt load increased by 16 percent, or $2 billion dollars. In this period, program expenditures increased by 12 percent, but GDP also grew by 12 percent, so the growth of government spending tracked overall economic growth. Again, the main cause is federal transfer payments, which decreased by 10 percent between 2009 and 2014 in inflation-adjusted terms. Another problem was the personal and corporate tax cuts made by both Conservative and Liberal federal governments (Mimoto and Cross, 1993) which decreased provincial tax revenues.

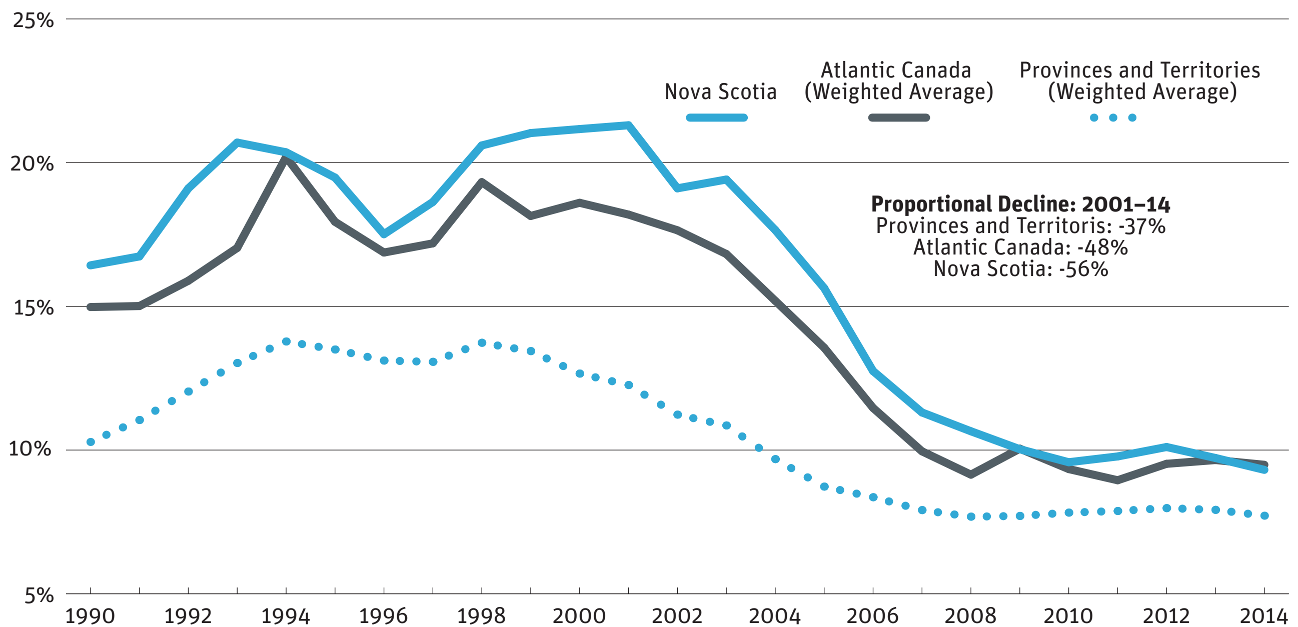
In the quarter-century between 1990 and 2014, Nova Scotia added $10.3 billion to its public debt. As this brief analysis has shown, roughly $9 billion (87 percent of the new debt) was borrowed to cope with stagnant or negative economic growth or to offset reductions in transfer payments from the federal government. Nova Scotians are not 'borrowing and spending', as the hackneyed phrase would have it. As a percentage of overall economic activity, the debt load is slightly lower today than it was a decade ago. And the new debt has not been generated because of 'reckless' increases in public spending. Rather, it was created to cope with fiscally irresponsible decisions in Ottawa and chronically weak economic growth.

The question of the sustainability of Nova Scotia's debt is laid to rest by the facts in *Figure 6*, which capture debt servicing charges (interest plus principal) as a percent of budgetary revenue for Nova Scotia, Atlantic Canada and for all provinces and territories. All three series trended sharply downward after 2001, largely because interest rates have fallen, but also because relative debt loads have decreased.

As late as 2001, Nova Scotia was diverting one-fifth (21 percent) of its budgetary revenues to service its debt. At that time, the Atlantic provinces were spending 18 percent on debt servicing, while the federation average was 12 percent. By 2014, Nova Scotia's debt serving charges as a share of budgetary revenue had declined to nine percent, comparable to Atlantic Canada and just one percentage point higher than the federation average.

The combination of a proportionately lower debt load and relatively smaller debt servicing charges signal that Nova Scotia's fiscal house is in order (and then some). Even former advocates of austerity (or in technical terms, 'fiscal consolidation') like the International Monetary Fund have

FIGURE 6 Debt Charges as a Percent of Budgetary Revenue, 1990–2014



Source Fiscal Reference Tables 18–21, 32.

begun to revisit their thinking on public sector cutbacks. In a recent policy note, economists at the IMF state:

> Faced with a choice between living with the higher debt — allowing the debt ratio to decline organically through growth — or deliberately running budgetary surpluses to reduce the debt, governments with ample fiscal space will do better by living with the debt. Austerity policies not only generate substantial welfare costs due to supply-side channels, they also hurt demand — and thus worsen employment and unemployment… episodes of fiscal consolidation have been followed, on average, by drops rather than by expansions in output.

In other words, deficit reduction programs tend to do more economic damage and social harm than good. These IMF economists conclude:

> In sum, the benefits of some policies that are an important part of the neoliberal agenda appear to have been somewhat overplayed… In the case of fiscal consolidation, the short-run costs in terms of lower output and welfare and higher unemployment have been underplayed, and the desirability for countries with ample fiscal space of simply living with high debt and

allowing debt ratios to decline organically through growth is underappreciated (Ostry, Loungani and Furceri 2016).

If the most ardent supporters of 'sound finance' and other neoliberal policies have begun to reverse course, why is the McNeil government continuing with an economically discredited program? And if debt and deficits are not a fiscal problem for Nova Scotia, why is the government making an issue out of public sector compensation?

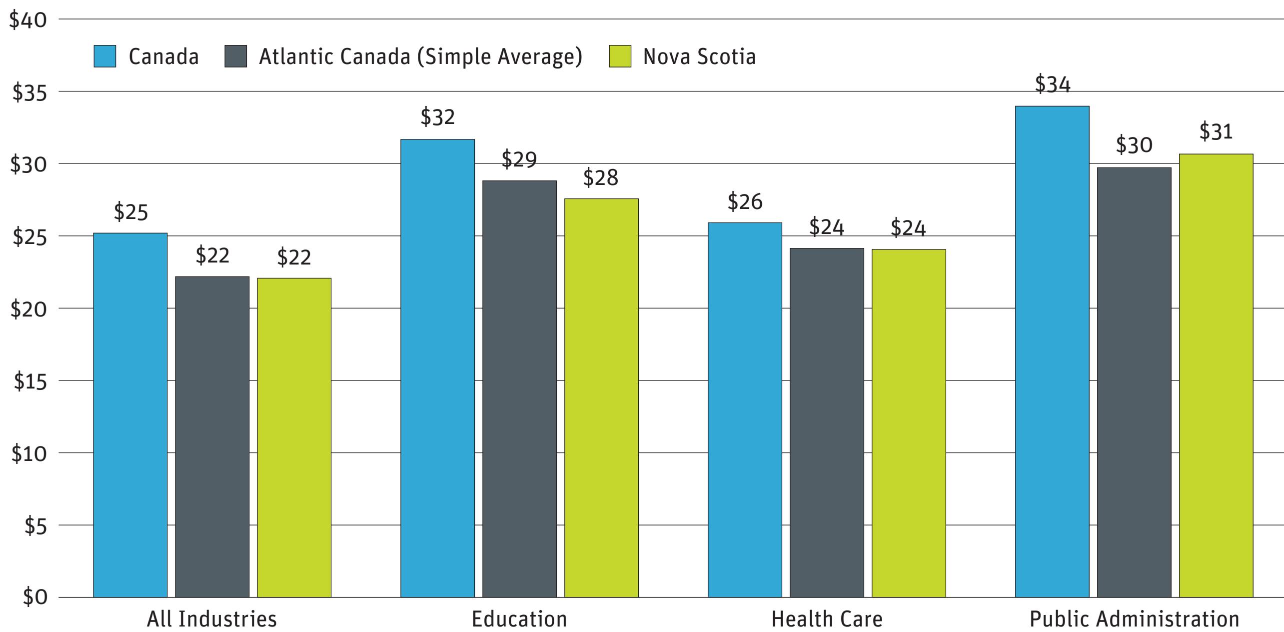
5. Compensation Trends in Nova Scotia

THE PROVINCIAL GOVERNMENT'S Public Services Sustainability Act (PSSA), which passed the House of Assembly in December of 2015, has not yet been passed into law. While the government proclaims that it 'respects collective bargaining', it also states that because Nova Scotians have told the government that 'they can't afford to pay more taxes' (incidentally, when do citizens ever tell the government differently?), the fiscal plan aims to put Nova Scotia on a 'sound financial footing'. This is despite the fact that polls show a majority of Nova Scotians are prepared to pay more in taxes to finance public services such as postsecondary education.[15] But, how can the government achieve its stated objective of investing in health care, education and other public services without negotiating how the people who deliver those services are compensated?

Reading between the lines, the government seems to believe that workers in the public sector are overpaid. 'Nova Scotia can't support high public sector wages that outpace the province's lagging economic growth', Premier McNeil said, adding that it's a 'recipe for disaster' (Canadian Press 2014b). Let's examine this claim to see if it has any merit. *Figure 7* plots hourly wage rates in 2015 for the industrial average, education, health care and public administration.

Workers in Atlantic Canada are generally paid about 10 percent less than their counterparts elsewhere in Canada. Across the entire economy, Nova

FIGURE 7 Average Hourly Wage Rates, 2015



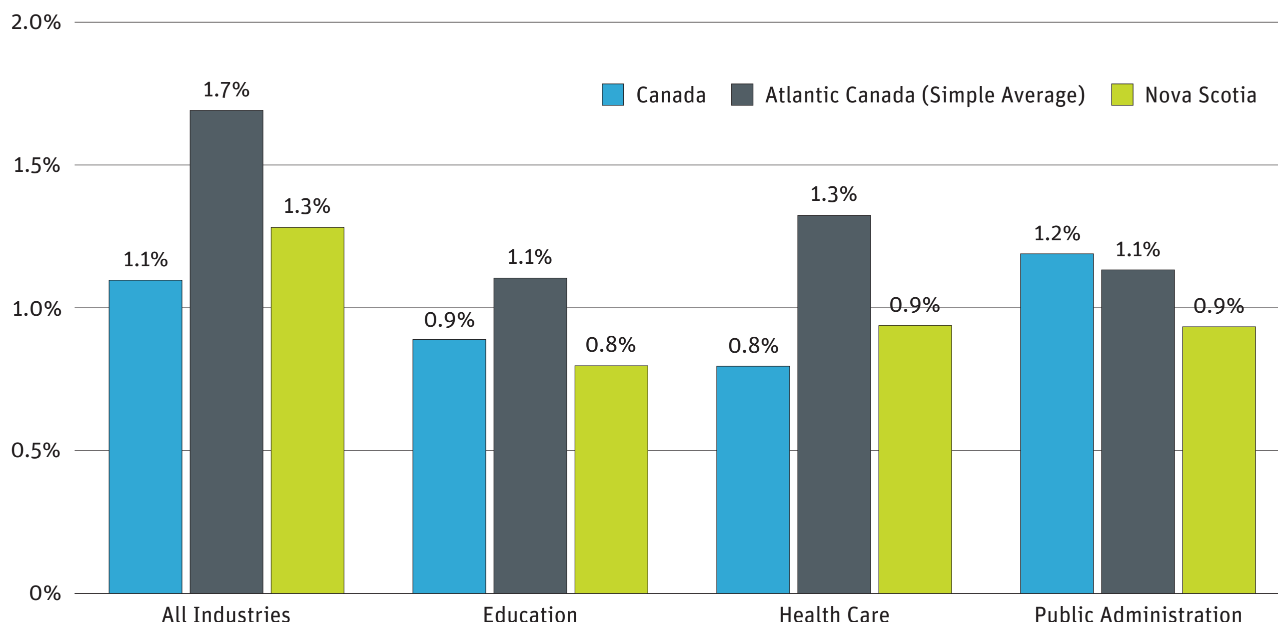
Source Cansim Table 282-0072.

Scotians are paid roughly three dollars less per hour than the Canadian average. The difference is larger in education (four dollars), the same in public administration (three dollars) and slightly less in health care (two dollars). Significantly, in public sector industries, which are targeted by the government's PSSA, Nova Scotia workers are paid the same (plus or minus one dollar) as their counterparts in the Atlantic Canada.

There is no evidence that Nova Scotians, particularly those working in the public sector, are overpaid. If wage levels are in keeping with the Atlantic Canada average, how quickly have Nova Scotian wages been growing? *Figure 8* plots the average annual growth rate of inflation-adjusted wages between 2005 and 2015 in all industries and in education, health care and public administration.

There are a few things that command our attention. First, average wage growth in Nova Scotia over the past decade has trailed the Atlantic Canada average (1.3 percent versus 1.7 percent) even though it has eclipsed the Canadian average (1.1 percent). So in terms of overall wage growth, Nova Scotia runs in the middle of the pack. More importantly given the arguments being made about the need for public sector restraint, public sector wage growth has also trailed the industrial average in Atlantic Canada. Wages in

FIGURE 8 Average Annual Growth Rate of Hourly Wages, 2005–15



Source Cansim Tables 282-0072 (hourly earnings) and 326-0021 (CPI).

education, health care and public administration have all grown at a slower rate than the overall economy, which implies that public sector workers are falling behind. What's more, public sector workers in Nova Scotia trailed both the Canadian and Atlantic Canada averages in education and public administration, and they trailed the Atlantic average (while modestly beating the Canadian average) in health care.

Figure 8 shows that wage growth in Nova Scotia's public sector industries has tended to trail the Canadian and Atlantic averages (save health care, which grew slightly faster than the Canadian average but considerably slower than the Atlantic average). The same does not hold true for Nova Scotia's private sector, which has seen stronger wage growth than the public sector and faster growth than the Canadian average. The implication is that the Nova Scotia government has used a strategy of 'wage suppression' with its public sector employees as a means of balancing the budget. This strategy not only punishes workers (and their families) in the public sector, but it weakens aggregate demand and is thus a drag on economic growth. Wage suppression in the public sector may also have spillover effects for workers in the private sector insofar as it serves to decelerate wage growth in other industries. By restricting wage growth for public sector workers, it becomes

easier for private sector employers to justify poorer wage gains than would otherwise be the case. And the competition among employers for people with certain skill sets is deliberately lessened when the government refuses to compensate its actual and potential employees in line with market trends.

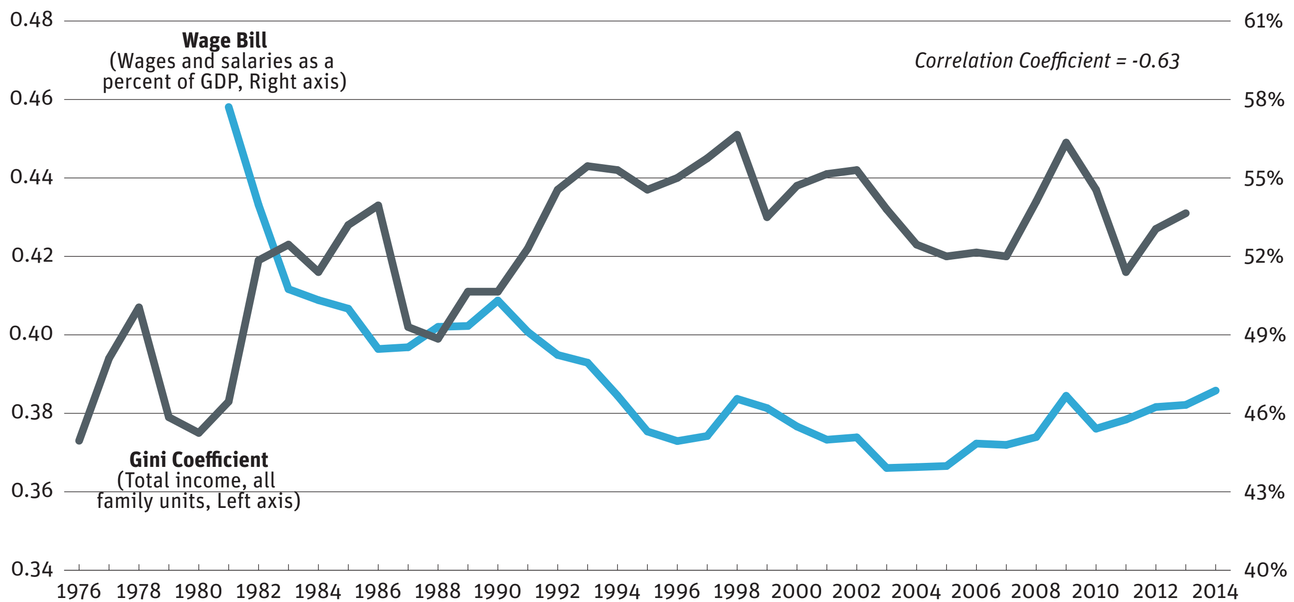
Given the facts laid out above it would be difficult to argue that Nova Scotia's public sector workers are overpaid or that their compensation increases have been out of line with regional and national averages. The opposite is true. Nova Scotia's public sector workers have seen slower wage growth than their counterparts in the private sector and their industrial counterparts elsewhere in Canada.

To the critics who might argue that public sector workers are 'overpaid' because they tend to earn more than their private sector counterparts, there are at least two counter-arguments. First, a straight sectoral comparison is not an appropriate methodology. Differences in education, training, skill level, job tenure, pay equity and other factors must be considered. Second, and at a deeper level of analysis, while critics may claim that public sector workers are overpaid because they tend to be paid more than private sector workers, the exact opposite conclusion could be reached: private sector workers are underpaid relative to their public sector counterparts, in part because they lack union representation. In the absence of unions, compensation trends will converge on culturally-determined subsistence levels as opposed to an equitable prosperity.

Instead of flagging public sector wage levels or the rate of growth of public sector compensation as problematic, the government of Nova Scotia may want to address a more urgent fiscal problem, namely the historically high levels of income inequality in Nova Scotia. *Figure 9* contrasts the Gini coefficient which is a broad measure of income inequality — a value of 0 means perfect equality and a value of 1 means perfect inequality — with the provincial wage bill, which is measured as the wage and salary share of provincial GDP, from 1976 to 2014.

The two series are negatively correlated. As less provincial income goes to workers in the form of wages and salaries, the distribution of personal income becomes increasingly unequal. In the early 1980s, 58 percent of provincial income was accounted for by wages and salaries. By 2014 only 47 percent of provincial income was pocketed by workers — a decrease of one-sixth. In the early 1980s, the Gini coefficient was 0.29, which means 29 percent of provincial income would need to be redistributed in order to perfectly equalize incomes. By 2014 the Gini coefficient had climbed to 0.34 — a one-sixth increase in inequality.

FIGURE 9 The Distribution of Nova Scotian Income, 1976–2014



Source Cansim Tables 206-0033 (Gini coefficient), 384-0037 (GDP and wages and salaries.

These trends are similar to those found in Canada. Over the past generation the province has become much more unequal. Inequality, and not public sector compensation, is the real fiscal challenge. As more money filters to the top income group, with less money going to working and middle class people, overall purchasing power (aggregate demand) weakens.

The OECD found that rising income inequality is a drag on growth (Cingano 2014). Having examined two dozen countries over three decades, the OECD found that elevated levels of income inequality were statistically associated with lower levels of GDP growth. The scholarly literature cites multiple channels through which increased inequality can impair growth, including reduced social trust, increased social unrest and/or political instability, under-education among low-income groups (in part because of the higher costs) and weaker aggregate demand (Cingano 2014: 11–12). The OECD recommends stronger reliance on the tax-and-transfer system (that is, government spending), both to improve social outcomes and to reduce inequality — the combined effect of which would be faster growth (Cingano 2014: 19).

If budgetary deficits, government debt levels and public sector employee compensation cannot be validly flagged as the root of Nova Scotia's economic woes, what is behind the weak economic growth afflicting the province?

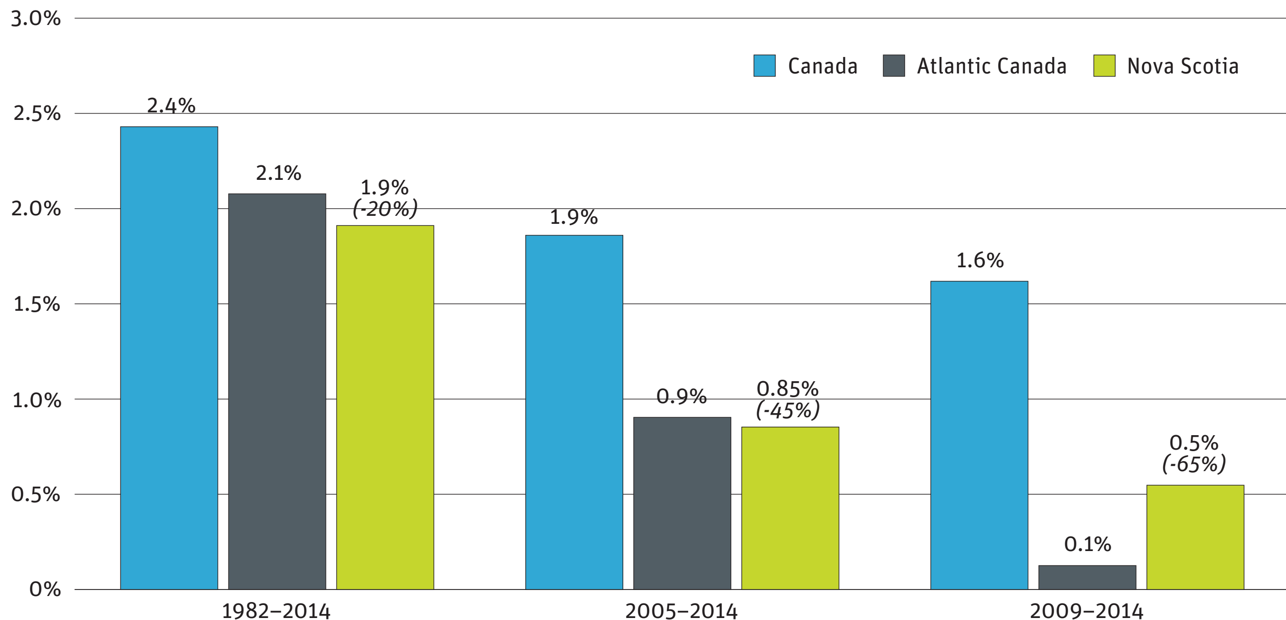
6. Demographic, Labour Market and GDP Growth Trends in Nova Scotia

FIGURE 10 SHOWS the average growth rate of inflation-adjusted GDP in Canada, Atlantic Canada and Nova Scotia over three periods: 1982–2014, 2005–2014 and 2009–2014. Three things command our attention. First, the growth rate of GDP has slowed over time. Over the past three plus decades, the GDP growth rate averaged 2.4 percent in Canada, 2.1 percent in Atlantic Canada and 1.9 percent in Nova Scotia. Over the past decade, these rates slowed to 1.9 percent, 0.9 percent and 0.85 percent, respectively. Since the financial crisis of 2008–09, growth has been even slower, having fallen to 1.6 percent, 0.1 percent and 0.5 percent, respectively. So the growth challenges faced by Nova Scotians are by no means unique. In fact, growth across the OECD has slowed markedly over these time horizons.

Despite the uniform slowdown in GDP growth, there are some stylized facts that pertain to Nova Scotia. Nova Scotia has, over the long-term (1982–2014) and medium-term (2005–2014), trailed the Atlantic Canada average (computed on a weighted basis). It is only since 2009 that Nova Scotia beats the Atlantic Canada average.

Third, the spread between Nova Scotia's GDP growth rate and the Canadian growth rate has increased (i.e., worsened) over time. Over the past three decades, Nova Scotia's growth rate trailed the Canadian overage by

FIGURE 10 Average Growth Rate of Inflation-adjusted GDP



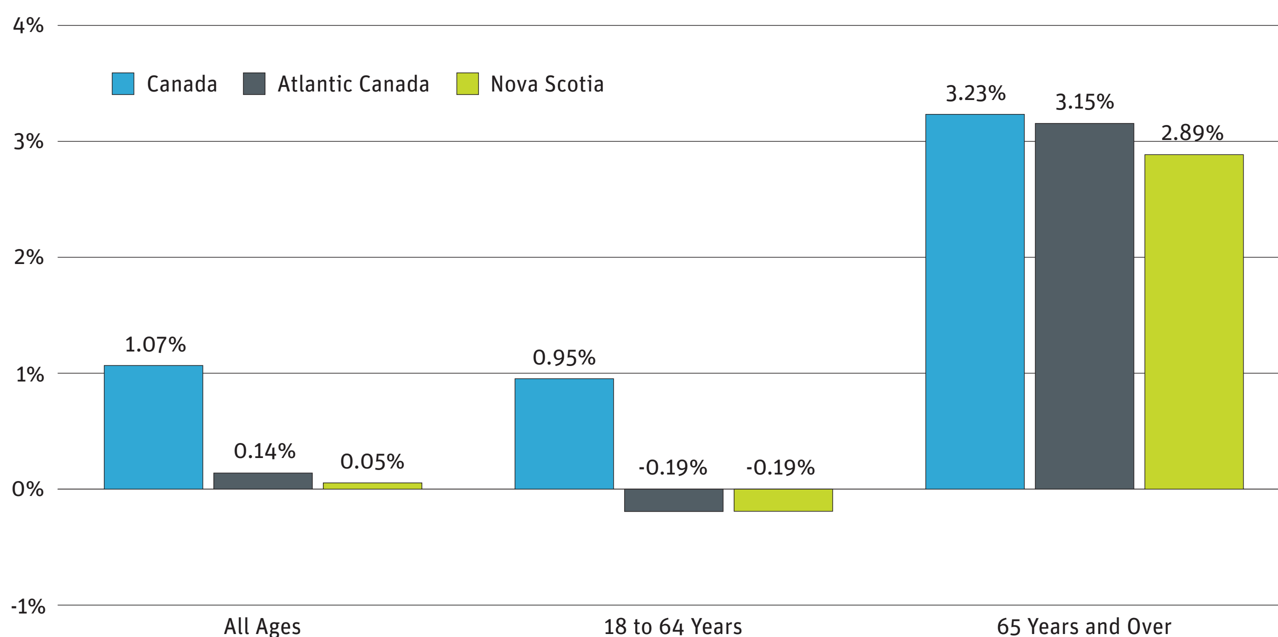
Source GDP from Cansim Table 384-0038; CPI from Cansim Table 326-0021.

one-fifth (1.9 percent versus 2.4 percent). Over the past decade the spread increased to nearly one-half (0.85 percent versus 1.9 percent). And since the Great Recession, Nova Scotia has only grown at one-third the rate of Canada (0.5 percent versus 1.6 percent). So not only is the average GDP growth rate in Nova Scotia lower than the Canadian average, its rate of deceleration is higher. Why is economic performance worsening more quickly in Nova Scotia than elsewhere in Canada?

Figure 11 sheds light on the causes of Nova Scotia's economic woes by comparing net population growth rates over the past decade in Canada , Atlantic Canada and Nova Scotia across three demographic groups: all ages, those in their prime work years (18–64) and seniors (65+). Over the past decade the Canadian population has grown by nearly 1.1 percent per year (on average). Atlantic Canada has grown at a much slower rate — just 0.14 percent — and at 0.05 percent Nova Scotia has barely grown at all. Even though growth rates are low, there is explosive growth amongst seniors, the population of which is growing by orders of magnitude faster than the overall population.

The real story is in the middle of *Figure 11*, which shows that the prime working age group is growing slower than the overall average for Canada as

FIGURE 11 Average Annual Demographic Growth Rates, 2005–15



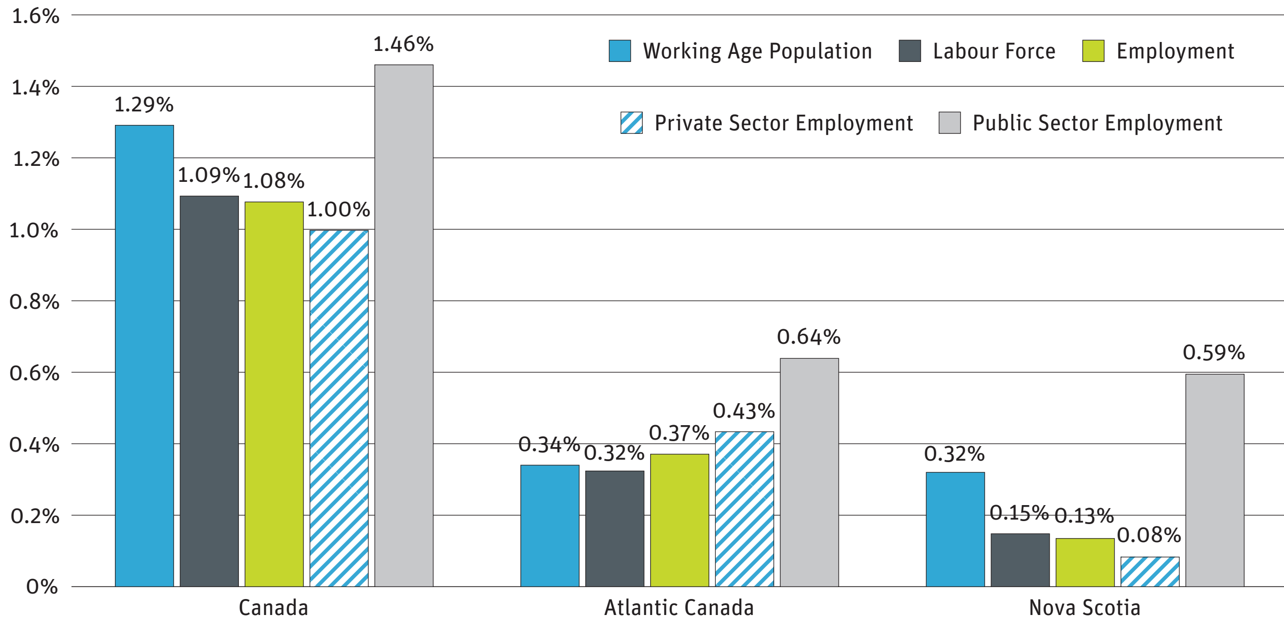
Source Cansim Table 051-0001.

a whole and is *shrinking* in Atlantic Canada and Nova Scotia (by 0.2 percent per year). Given that most of the income in a society is generated by working age people, the contraction of this group poses a problem to Atlantic Canada.

This collection of facts is one reason why GDP growth in Atlantic Canada has been so poor. If the segment of the population that generates most of our goods and services (i.e., income) is shrinking, the overall growth potential of the society decreases. However, the mere fact that the working age population is shrinking does not automatically entail weaker economic growth. It is a confluence of factors, including working age population, labour force participation, employment (in both the private and public sectors) and job quality that shapes growth. *Figure 12* plots deeper demographic and labour market facts over the past decade by contrasting the average rate of growth of the working age population, the labour force, overall employment, private sector employment and public sector employment.[16]

Given the facts in Figures 10 and 11, it is not surprising that average growth rates in Canada exceed those found in Atlantic Canada and Nova Scotia. The interesting differences are to be found when we contrast Atlantic Canada with Nova Scotia and when we contrast public sector with private sector job creation. In Atlantic Canada, the labour force has been growing

FIGURE 12 Demographics and Employment: Average Annual Growth Rate, 2005–15



Source Cansim Tables 282-0011 and 282-0087.

slightly slower than the working age population (meaning proportionately fewer people are employed or looking for work), while overall employment is growing faster than the labour force (meaning the unemployment rate is falling). Private sector employment is growing faster than overall employment, and public sector employment is growing even faster than in the private sector (which means that self-employment must be falling, which is likely a good thing given the highly precarious nature of that form of employment). Even though the growth rates in Atlantic Canada are much lower than Canada as a whole, generally speaking there are encouraging signs in the Atlantic Canada labour market.

The troubling facts are to be found in Nova Scotia. The working age population in Nova Scotia is growing slower than the Atlantic average, but the labour force in Nova Scotia is growing at less than half the rate of the province's working age population (0.15 percent vs 0.32 percent, on average). This implies that more people of working age are exiting the labour force, possibly because they are discouraged (by the lack of jobs). Overall employment in Nova Scotia has been growing slower than the labour force, which means that unemployment is rising. More distressing still is the chronically weak job creation in the private sector (0.08 percent per year, on average),

one-half the rate of the overall labour force (0.15 percent) and one-quarter the rate of the working age population (0.32 percent).

Public sector job creation in Nova Scotia, which is slower than the Atlantic Canada average and roughly one-half the Canadian average, is nonetheless offsetting stagnant job prospects in the private sector. At 0.59 percent average growth per year, Nova Scotia's public sector is giving a boost to overall employment growth, and therefore, to the macro economy and government finances. It is also worth noting that public sector job creation is the fastest growing labour market category across the country, far outpacing private sector and overall job creation, and thus sustaining what is already chronically weak aggregate demand.

Far from being a drag on the fiscal situation of the Nova Scotia government, public sector industries like education, health care and public administration are a major engine of growth. Without them, Nova Scotia's economy would be much poorer from a growth standpoint.

Figures 10 to 12 indicate that the government faces serious economic challenges, namely a stagnant population, a shrinking labour force and near stagnant private sector job creation. Reversing these distressing trends will be difficult, but a key priority of the government should be to avoid making things worse. An austerity program at this time could easily tip the Nova Scotian economy into recession and would almost certainly do more harm than good. At a time when labour force participation is extremely weak due in part to stagnant private sector job creation, cutbacks would only worsen chronically weak labour market trends and make the province poorer.

7. Concluding Remarks

LET'S TAKE STOCK. The McNeil Government's call for public sector wage reductions (after accounting for inflation) cannot be justified with reference to budgetary deficits (now or in the recent past), government spending levels or public indebtedness. What's striking about Nova Scotia's public finances is how strong they are, given the chronically weak economic growth the province has endured.

Nor is there any justification for the belief that public sector compensation is too high, or that wage growth has been too fast. On the contrary, Nova Scotian wage growth in health care, education and public administration have tended to trail the Canadian and Atlantic Canada averages. Wage growth in Nova Scotia's public sector has also grown at a slower rate than in the private sector. With historically low GDP growth rates and historically high levels of income inequality, austerity would almost certainly exacerbate the province's macroeconomic predicament.

The demographic reality in Nova Scotia is unfavourable. The prime working age population is shrinking, the labour force is barely growing and overall job creation has been exceptionally poor, despite relatively stronger employment growth in the public sector. Perhaps most disappointing of all, private sector job creation has been nearly non-existent. Offsetting these negative demographic and labour market trends are increase in female and senior labour force participation. Despite that, recent labour market and demographic trends pose a challenge to the government of Nova Scotia.

There are sound economic arguments for why austerity would do more harm than good, especially in the context of sluggish growth and stagnant private sector job creation. Budgetary deficits, because of the multiplier effect, can not only improve social outcomes, but strengthen macroeconomic performance. With historically low interest rates, this is an opportune time for the province to engage in deficit financed infrastructure investment, replete with good job creation, which could have the effect of 'crowding in' private sector investment. A commitment to job creation and recognition that good jobs are an asset, not a liability, is essential.

Appendix A

Why Austerity Fails

BEGINNING WITH THE assumption that every expenditure of funds by an economic actor is some other actor's income, and that national income (GDP) itself is the sum of household expenditure (C), private business expenditure (I), government expenditure (G) and the net expenditure of foreigners (X - M), income has three possible uses: it can be taxed, consumed or saved. This identity is captured in the following equation:

(2) $Y = C + S + T$

Where (C) is consumer spending, (S) is saving and (T) is taxation. Because equations (1) and (2) are different ways of arriving at national income (Y), they can be rewritten as follows:

(3) $C + I + G + (X - M) = C + S + T$

Because consumer spending (C) appears on both the right and left side of equation (3), it can be cancelled. To simplify the analysis, we can eliminate the effect of international transactions (trade and investment), thereby treating the economy as 'closed' rather than 'open'. And because this paper examines a provincial economy, we will also ignore inter-provincial transactions. By making these adjustments, equation (3) can be expressed as follows:

$$(4)\quad I + G = S + T$$

By shuffling the terms in equation (4) we arrive at the sectoral balances accounting relations, which more clearly depict the relationship between the public sector $(G - T)$ and the private sector $(S - I)$:

$$(5)\quad (G - T) = (S - I)$$

There are three possible states for a sector (in this case either public or private — remember, we eliminated the household sector and have ignored the external sector) to be in: balance, surplus or deficit. For example, the public sector is in balance when government spends as much as it taxes ($G = T$). If government spends more on programs than it receives in taxes, it will be in a deficit position ($G > T$). And if government spends less than it taxes, it will be in surplus ($G < T$). Because equation (5) presents the relationship between the private sector and the public sector, it can be recast as follows:

(6) (Public sector balance) = (Private sector balance)

Equations (5) and (6) are accounting identities, meaning they are true by definition. This is a handy way of sorting out the relationship between the two sectors. Remember: just as one person's expenditure is another person's income, so too one sector's expenditure is necessarily another's income.

What happens, then, when a government runs a budgetary surplus ($G < T$)? By pulling more out of the private sector in taxes than it spends on programs, the government's surplus necessitates a private sector deficit (meaning business expenditure (I) will exceed saving (S), or net negative saving). Now, when a government goes into a deficit position — when the public sector spends more than it taxes — as a matter of accounting identity the government *adds* net financial assets to the private sector. A budgetary deficit implies that government deposits more money into private bank accounts than it removes from those accounts in taxes. And because every expenditure of funds is someone else's income, when the public sector goes into deficit the private sector *must* go into surplus, meaning saving will exceed investment ($S > I$). The implication is that for the private sector to be in surplus ($S > I$), the public sector must be in deficit ($G > T$).

In the context of weak economic growth, when the government runs a budgetary surplus ('tightens its belt') it removes more money from private bank accounts through taxation than it puts into those accounts through its expenditures, thus plunging the private sector into deficit. Deficit spending has the opposite effect. When aggregate demand is weak, the govern-

ment can tip the private sector into surplus by spending more than it taxes, which strengthens aggregate demand.

This brief exposition has tried to articulate why austerity often does more harm than good. In the context of weak economic growth, budgetary deficits inject much needed expenditure into the economy, which strengthens aggregate demand.

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Notes

1 See Anonymous (2015) for an analysis of the competing definitions of austerity.

2 For the view that government spending reductions not only shrink deficits, but increase GDP growth see Alesina and Ardagna (2010).

3 Leave aside the validity of this measure (it is not the most accurate way of assessing public indebtedness for the simple reason that it contrasts a stock (debt) with a flow (GDP)), a more accurate way of capturing public indebtedness would be to compare debt with assets, or debt servicing charges with budgetary revenue.

4 The Organization for Economic Cooperation and Development is an assemblage of the 34 richest, most technologically advanced countries.

5 GDP data come from Eurostat. The debt-to-GDP ratio is drawn from the OECD.

6 This and all ensuing references to budgetary data come from the Fiscal Reference Tables.

7 Other arguments for crowding out centre on the increased interest rates faced by private business that are generated by periods of heavy public borrowing. See Blanchard and Perotti (2002) for evidence that government spending reduces business investment, Blanchard and Leigh (2013) for evidence that austerity undermines growth and Abiad, *et al*. (2015) for evidence that government spending 'crowds in' private investment and increases long-term growth.

8 The school of heterodox economics that I refer to here is Modern Monetary Theory, but the sector balances approach is most closely associated with the late Wynne Godley. This framework was brought to my attention by Professor Stephanie Kelton of the University of Missouri Kansas City at the 2015 Progressive Economics Forum Summer School. For a more detailed explanation of this framework see Appendix A. This brief discussion of the SFB approach was inspired by Kelton (2011a; 2011b).

9 For the sake of convenience, the year in which the budget is tabled will denote the entire fiscal year. For example, the current fiscal year is 2016–2017, but it will be depicted as 2016.

10 See Department of Finance and Treasury Board (2016: p. 7, Table 3.1).

11 A weighted average, as opposed to a simple average, adjusts each province/territory by a factor reflecting its relative importance.

12 Comparing Nova Scotia's spending as a percent of GDP with the other provinces or over time does not tell the whole story about whether Nova Scotia's spending is appropriate. Given its relatively low GDP, if Nova Scotians are to have comparable levels of services they need to spend more per capita than other provinces. Furthermore, expenditure needs to increase substantially with age and with the proportion of the population in rural areas — two areas where Nova Scotia ranks higher than other provinces.

13 Net debt refers to overall debt less financial assets.

14 Even though it is common practice, using GDP to benchmark public debt is a false comparison. In accounting, debt is a 'stock' (a variable measured at one specific time) while GDP is a 'flow' (a variable measured over an interval of time). Debt should either be compared with assets or, if GDP is to be invoked in the comparison, it is debt servicing charges (interest plus principal repayment) that is the more relevant measure.

15 See the report issued by the Nova Scotia Post-Secondary Education Coalition (2014). http://cfs-ns.ca/wp-content/uploads/sites/25/2014/07/2010_Polling_Brief.pdf

16 In Figure 12 the working age population is defined as 15 years and over, which means it includes seniors.

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