Atlantic Canada's Precarious Public Finances

Ben Eisen, Alex Whalen, and Milagros Palacios

FRASER INSTITUTE
2021

AIMS

2021 • Fraser Institute

Atlantic Canada's Precarious Public Finances

by Ben Eisen, Alex Whalen, and Milagros Palacios

Contents

Executive Summary

Canada's four Atlantic provinces—Prince Edward Island, Nova Scotia, New Brunswick, and Newfoundland & Labrador—face long-term threats to fiscal sustainability. COVID-19 and the resulting economic downturn has only added to these challenges. Further, they face several risks that could exacerbate their fiscal challenges in the years ahead and accelerate negative consequences. This study provides an overview of the fiscal challenges facing the four Atlantic provinces and identifies sources of precariousness that could put further pressure on public finances in the years ahead and undermine efforts to achieve sustainability.

We show, referencing two recent analyses, that the finances of all four Atlantic provinces are currently unsustainable. This means that, using reasonable assumptions, without changes in policy, the four provinces will see rising debt-to-GDP ratios over time. Many other provinces also face significant challenges to fiscal sustainability but there are a number of economic and demographic headwinds that make Atlantic Canada's finances more precarious than other regions in the country. By this, we mean that there are several possible sources of additional pressure on public finances that make the Atlantic region more vulnerable to fiscal shocks, and which will make it more difficult to achieve sustainability in the long run.

First, as a result of lower credit ratings stemming from concerns about solvency Canada's Atlantic provinces generally pay higher interest rates on newly issued government debt than most other provinces. This is why the current debt charges of the Atlantic provinces relative to own-source revenue are four of the five highest in the country. Debt charges are equal to 17.7% of own-source revenue in Newfoundland & Labrador, 10.3% in New Brunswick, 9.9% in Nova Scotia, and 9.5% in Prince Edward Island.

Another source of precariousness for the region's public finances are the existing high taxes in the region. These high current tax rates make it much more difficult for the province to raise taxes further at some point in the future to raise revenues to cover debt interest payments. New Brunswick has the second highest tax effort in Canada, followed by Nova Scotia in third. Prince Edward Island is fifth and Newfoundland & Labrador is sixth highest on this metric.

Another source of risk to public finances—particularly in the Maritime provinces—is the high level of dependence on transfers from the federal government. Prince Edward Island, New Brunswick and Nova Scotia are the most reliant of any province on federal transfers to fund their programs. This is a source of vulnerability, as it means that these provinces are at greatest risk if a future federal government reduces transfer payments to the provinces.

We also show that the Atlantic provinces' demographic features will put upward pressure on health-care costs and downward pressure on labour force participation rates. Specifically, we show that the four Atlantic provinces have the four highest shares of people 65 or older in their overall population.

We conclude with an analysis of the implications of these statistics for public finances in the region. The data reveal some clues as to where the region may need to go to solve its fiscal and economic challenges. High levels of government spending relative to the size of provincial economies are a contributing factor to the region's currently unsustainable path. Reductions in spending would need to be carefully implemented but are likely a necessary ingredient for future prosperity.

Introduction

The Atlantic provinces of Canada have long faced significant fiscal challenges. While the three Maritime provinces—Prince Edward Island, Nova Scotia, and New Brunswick—have made some progress in addressing these challenges in recent years, the region as a whole continues to face long-term threats to fiscal sustainability. COVID-19 and the resulting economic downturn has only added to these challenges. Meanwhile, long-term analysis suggests that the region's current policy mix is likely unsustainable and, without changes in policy, all four Atlantic provinces—Newfoundland & Labrador and the Maritimes—will see their debt burdens climb relative to the size of their economies in the years ahead.

Further, Canada's Atlantic provinces face several risks that could exacerbate their fiscal challenges in the years ahead and accelerate negative consequences. While the finances of the provincial governments across the region are already unsustainable, these risks may significantly limit governments' ability to respond if changing circumstances make the task of returning provincial finances to sustainability more challenging. In short, the public finances of the Atlantic provinces differ from those of other Canadian provinces in ways that could make their task even more difficult than it is in the rest of the country.

This study provides an overview of the fiscal challenges facing the four Atlantic provinces. Further, it identifies the sources of the precarious public finances that could undermine efforts to achieve sustainability in the years ahead. By illustrating the challenges facing the region as well as sources of risk, the study aims to further public understanding of the nature of the risks facing each of the Atlantic provinces and thereby to underscore the importance of policy efforts to achieve fiscal sustainability.

Fiscal Challenges in Atlantic Canada before COVID-19

Before turning to consider possible sources of pressure on public finances in the region, let's look at where things stood immediately before the COVID pandemic and recession. Figure 1 shows the net debt-to-GDP ratio in all provinces in 2019/20. This ratio measures the size of each province's net debt in relation to the size of the economy. It shows that Newfoundland & Labrador had the highest net debt-to-GDP ratio in Canada last year. Because of the collapse of oil prices and the emergence of a very large deficit this year, its ratio, which was already the highest in Canada last year, is set to increase quickly in the years ahead.[1]

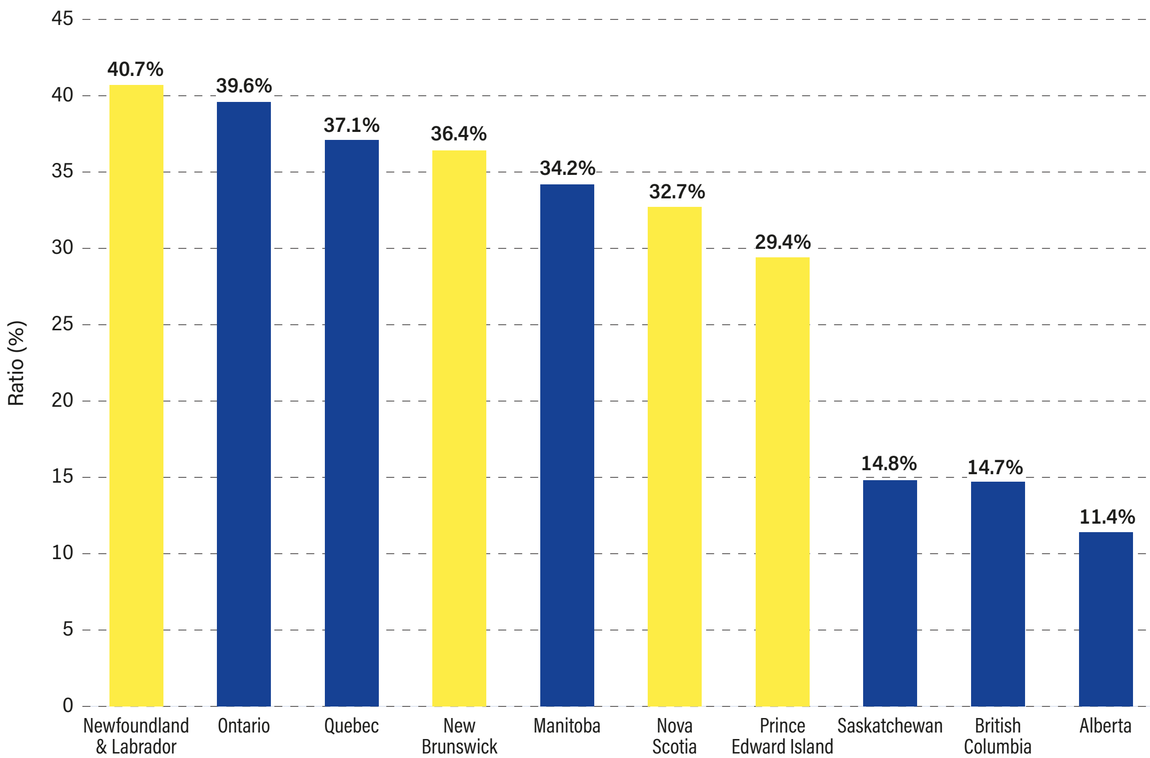
In the three Maritime provinces, debt-to-GDP was 29.4% in Prince Edward Island, 32.7% in Nova Scotia, and 36.4% in New Brunswick. Generally, these ratios put the Atlantic provinces in the middle of the pack in Canada, significantly higher than the three westernmost provinces, and slightly lower than Ontario and Quebec. All three Maritime provinces are facing deficits this year that will result in an increase in net debt. Newfoundland & Labrador's deficit is much larger still, relative to the size of its economy. This increasing debt combined with a shrinking economy this year will result in a rise in the debt-to-GDP ratio in all Atlantic provinces.

One consequence of the Atlantic provinces' high levels of provincial government debt is that debt-servicing payments are already a larger burden in the region than most of the rest of the country. One way to measure this burden is to look at debt charges as a share of own-source revenue (figure 2). This measure tells us what share of the tax revenue generated within the province is currently going toward debt servicing.

At the provincial level, government debt charges were higher in the four Atlantic provinces than every other province except Ontario. In Newfoundland & Labrador, debt charges represented 17.7% of own-source revenues, the highest in the country. New Brunswick is second worst at 10.3%, while Nova Scotia is third at 9.9%. For Prince Edward Island, the share is 9.5%, fifth in the country, and despite being the lowest in the Atlantic region is still higher than the national average. Compare this to less-indebted provinces. Debt interest consumed just 5.5% of own-source revenues in Saskatchewan, 5.6% in British Columbia, and 6.0% Alberta. Lower debt burdens relative to own-source revenues give these provinces additional fiscal room for other priorities.

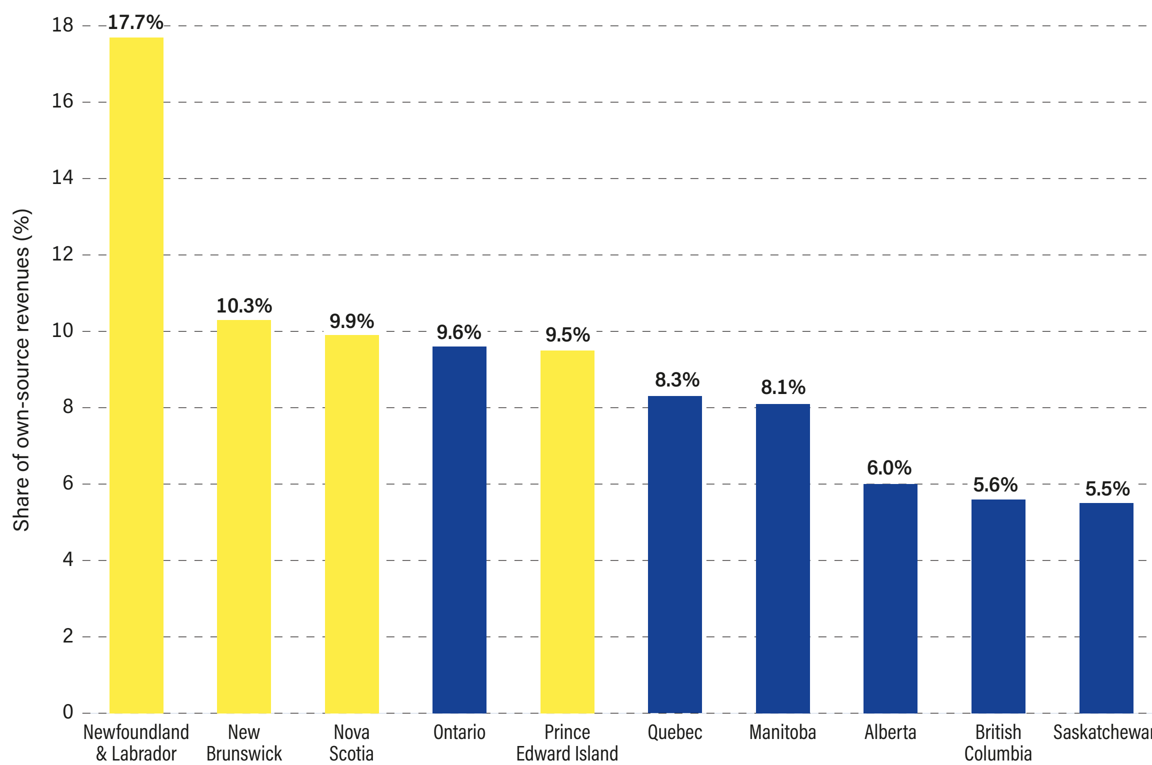
1. In addition to the pressure of servicing the debt arising from Newfoundland & Labrador's successive deficits, the province is ultimately responsible for the debt accumulated by the Muskrat Falls Hydroelectric Project, a crown corporation. While beyond the scope of this study, Muskrat Falls will place substantial pressure on Newfoundland & Labrador's provincial debt levels going forward.

Figure 1: Net debt-to-GDP ratio (%), by province, 2019/20



Sources: Provincial public accounts, 2020; Provincial budgets and updates, 2020; Statistics Canada, 2020b; calculations by authors.

Figure 2: Debt charges as a share (%) of own-source revenues, by province, 2019/20



Sources: Provincial public accounts, 2020; Provincial budgets and updates, 2020; calculations by authors.

The current net debt-to-GDP ratio is important in that it helps determine the burden of interest payments on debt today, but at least as important is the trajectory of this indicator. More specifically, in assessing the sustainability of a government's finances, economists use forecasts based on reasonable assumptions to assess whether the debt-to-GDP ratio is likely to rise or fall in the years ahead. If debt-to-GDP is forecast to continue rising, government finances are generally considered unsustainable, whereas if it is constant or shrinking, they are considered sustainable (Finances of the Nation, 2020; PBO, 2020). When the ratio is forecast to rise over the long run, the extent to which primary budgetary deficits[2] must be reduced to prevent what is known as the "fiscal gap". This definition of fiscal sustainability arose from Auerbach's analysis (1994) of United States budget deficits in the 1990s. His work described two key elements of sustainability: the extent of primary budget deficits as well as the size of the existing stock of debt.

Fiscal sustainability

A jurisdiction is generally considered fiscally sustainable if, under current policies, it is forecast to either maintain or reduce its debt-to-GDP ratio over the medium-to-long term. A jurisdiction's finances are generally unsustainable if the reverse is true, and the debt-to-GDP ratio is likely to increase with time. Of course, the trajectory of any jurisdiction's debt-to-GDP ratio is determined by many unknowable variables in the future that require various assumptions in creating a model and the question of whether a jurisdiction's finances are sustainable can depend on these assumptions.

Fiscal gap

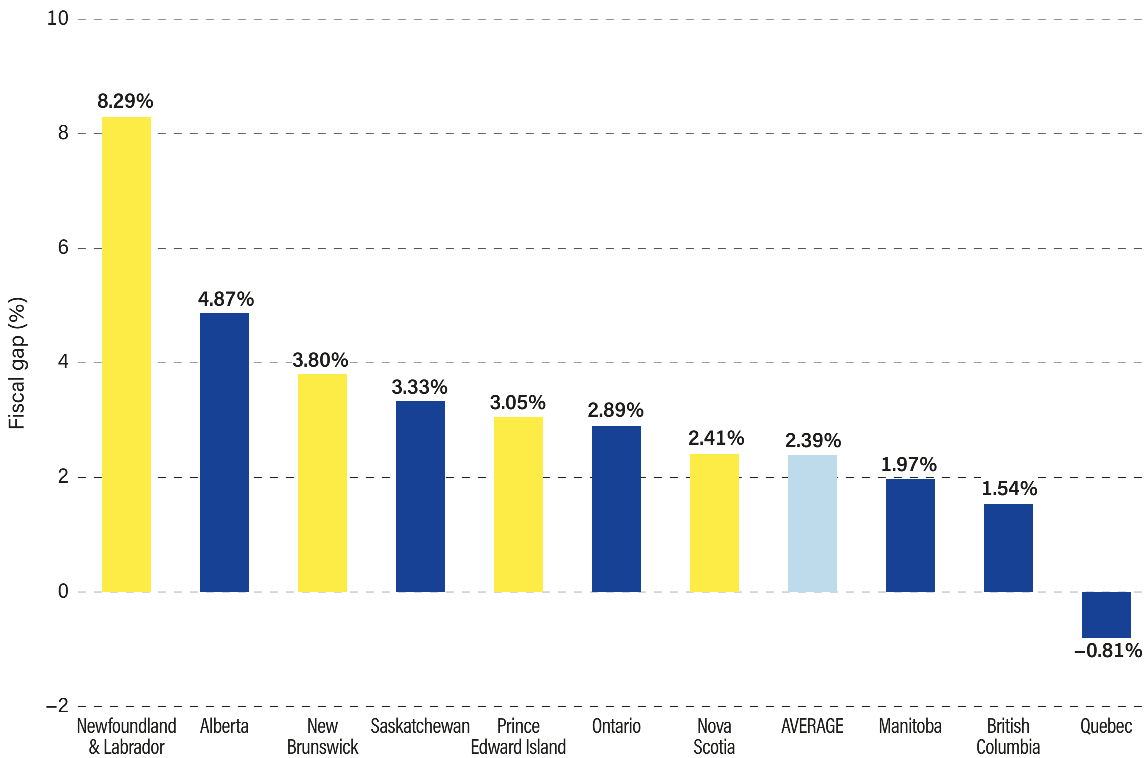
"Fiscal gap" refers to the size of the change in primary budget balances (as a share of GDP) required to maintain a constant debt-to-GDP ratio over a given period of time. Fiscal gap analysis is, therefore, a tool to quantify the sustainability of public finances.

Under these definitions, and using reasonable assumptions, public finances in all four of Canada's Atlantic provinces are currently unsustainable (figure 3).[3] In short, this means that, given current policy bundles and reasonable assumptions, the provincial debt-to-GDP ratio will continue to rise in the years ahead. Specifically, this measure of fiscal gap by province shows that without tax increases, Nova Scotia would need to reduce spending by 2.41% of GDP to hold the debt-to-GDP ratio at 2018 levels over a 25-year time horizon. For Prince Edward Island, this number is 3.05%, while in New Brunswick, it is 3.80%.

---

2. The "primary budget deficit" refers to the difference between all current spending and current revenues; in other words, the deficit excluding interest payments on debt.
3. The assumptions used for the purposes of this calculation are: 4% nominal provincial interest rate, 1% health-specific inflation, 1% labour productivity growth, a 25-year time horizon, and a medium-growth population scenario, as defined in the *Fiscal Gap Simulator* published by Finances of the Nation. Interested readers can consult <https://financesofthenation.ca/fiscal-gap-simulator/> to forecast provincial sustainability using other assumptions.

Figure 3: Fiscal gap (%), by province, 2019/20



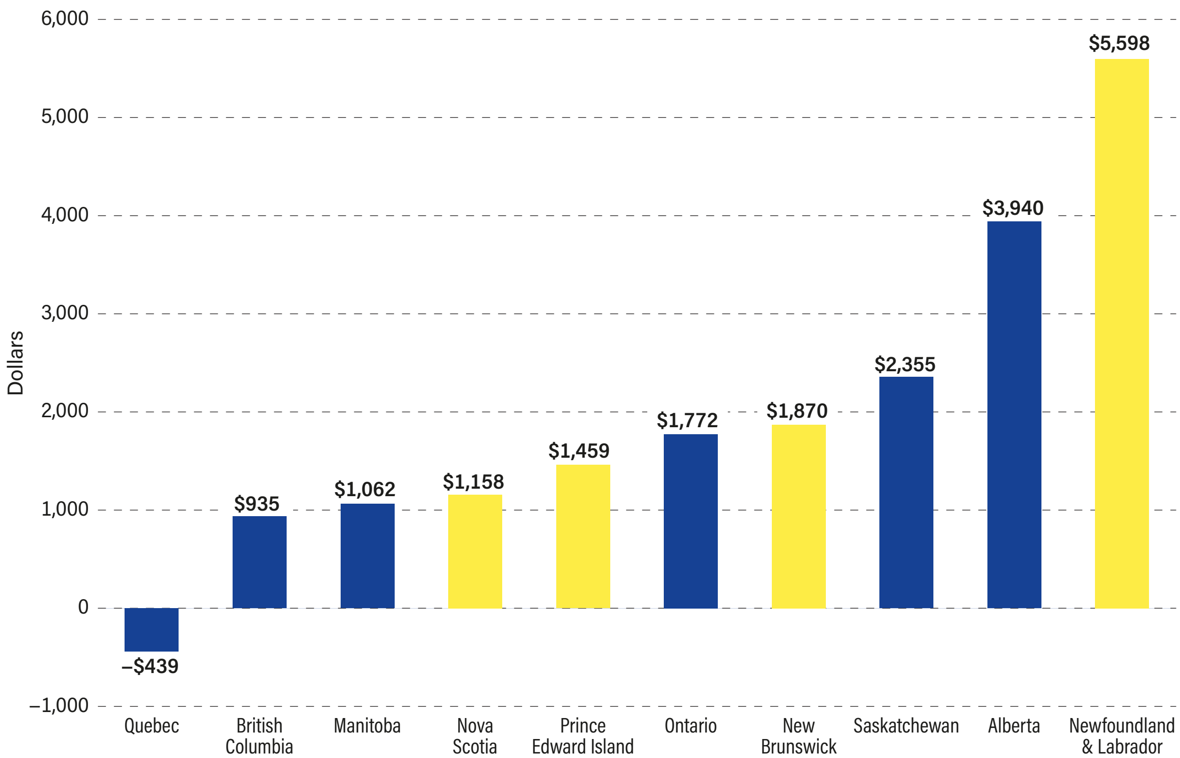
Note: Fiscal gap analysis is a tool to quantify the sustainability of public finances. These gaps represent the required change in primary balances (as a share of GDP) to maintain net debt-to-GDP ratios over a desired time horizon.
Source: Finances of the Nation, 2020, as of November 4, 2020.

At 8.29% of GDP, Newfoundland & Labrador's fiscal gap is by far the highest in Canada. and, on this metric, stands out as having, by far, the most unsustainable finances among the provinces. For the three Maritime provinces, the current fiscal gap that would need to be closed to achieve sustainability is relatively close to that found in the rest of the country. In all three instances, however, the Maritime provinces exceed the aggregate fiscal gap averaged across all ten provinces.

The fact that the Maritime provinces' fiscal gaps are comparable to that in most other provinces is not as reassuring as it may appear at first glance. The reality is that, across Canada, provincial finances are under significant strain and, unless there are policy changes, the provinces face a bleak outlook for the future (Tombe, 2020; Fuss and Whalen, 2020). The key takeaway from figure 3 is that, like many other provinces, in the years ahead the Atlantic provinces must make substantial fiscal adjustments—reducing expenditures by between 2% and 8% of GDP is a sizeable reduction—to achieve fiscal sustainability.

Figure 4 shows, on a per-person basis, how much the provinces would need to reduce program spending to close the fiscal gap in one year. Newfoundland & Labrador faces the largest gap in Canada: $5,598 per person to close the fiscal gap in one year. New

Figure 4: Change ($) in per-capita program spending needed in 2019/20 to close the fiscal gap



Note: Fiscal gap analysis is a tool to quantify the sustainability of public finances. These gaps represent the required change in primary balances (as a share of GDP) to maintain net debt-to-GDP ratios over a desired time horizon.
Sources: Finances of the Nation, 2020; Statistics Canada, 2020a; calculations by authors.

Brunswick has the next largest gap at $1,870 per person. The fiscal gap in Prince Edward Island is $1,459 per person, while Nova Scotia has the smallest gap in the region, at $1,158 per person.

Of course, there is no practical reason that closing the fiscal gap be undertaken in a single year. The spending reductions relative to GDP that are required would likely be made over time. Once the gap was closed, sustainability could be maintained only as long as spending growth was kept in line with GDP growth (holding all else equal). The purpose of figure 3 and figure 4 is therefore to illustrate the scale of the reduction in provincial program spending relative to GDP that would be required, making reasonable assumptions and in the absence of tax increases, to close the fiscal gap over time.

This section has shown that, like many other provinces across Canada, the Atlantic provinces of Canada face significant medium-term fiscal challenges. More specifically, public finances in all four provinces are currently unsustainable and, to achieve sustainability without tax increases, will need to make meaningful reductions in provincial expenditures as a share of GDP in the future.

Sources of the Precariousness of Atlantic Canada's Finances

As we have seen, like most provinces in Canada, the four Atlantic provinces face significant fiscal challenges. While a substantial fiscal adjustment will be needed to achieve sustainability in all four Atlantic provinces, several of the indicators described above are either similar to, or better than, those of some other provinces. For instance, the three Maritime provinces have lower debt-to-GDP ratios than Ontario and also require a smaller fiscal adjustment to achieve sustainability than Alberta. Nevertheless, the Atlantic provinces do face specific risks and possible future economic headwinds that could undermine their fiscal health and there are a number of ways in which their public finances are facing greater risk than in other parts of the country. This section identifies some of the sources of this risk.

Interest rates

Generally speaking, the Atlantic provinces all face higher interest rates when they issue new government debt than most other provinces. This is why, for example, interest payments both as a share of GDP and per capita are generally higher in the Atlantic provinces than in Ontario, despite Ontario having a higher debt-to-GDP ratio than any of the three Atlantic provinces. One way to illustrate this is by calculating the effective interest rate of various provinces in 2019. This measure is obtained by dividing interest payments on debt for that year by the total debt in each province, which tells us the cumulative effective interest rate paid by each province on all financial debt that they hold.

Atlantic Canadian provinces are, by and large, paying higher interest rates to maintain provincial debt loads than most other provinces. For example, looking at debt charges as a percentage of gross (that is, total) debt, Newfoundland & Labrador at 4.4%, Nova Scotia at 4.1%, and Prince Edward Island at 3.9% are paying the highest rates in the country. Compare this to other provinces. Ontario's effective interest rate is 2.8%, more than a full percentage point lower than Nova Scotia, Prince Edward Island, or Newfoundland & Labrador. Effective interest rates of most other provinces are similar to Ontario's, and Alberta has an even lower rate of 1.9%.

This adds to the overall picture of precariousness. We know the Atlantic provinces generally have higher debt levels relative to the size of their economy than several other provinces. This measure illustrates that for Newfoundland & Labrador, Nova Scotia, and Prince Edward Island the cost of servicing existing debt on a per-dollar basis is significantly higher than that faced by other provinces.

Moreover, it is a basic rule of public finance that debt-to-GDP ratios often increase very quickly when the rate of nominal GDP growth falls below the rate of interest paid on new debt (Turner and Spinelli, 2012). In recent years, nominal economic growth across Canada has been slow but interest rate on new debt in all provinces has also been low. Given the comparatively fine margins at play, the higher interest rate on new debt in Atlantic Canada means its provinces are, all else equal, more likely to find themselves in a position where interest rates on new debt exceed the rate of nominal GDP growth, a circumstance that often leads to negative cycles of accumulating debt and further growth in interest rates.

Although the Atlantic provinces have, like all provinces, generally enjoyed low interest rates in recent years, effective interest rates on government debt in the Atlantic region are generally higher than in other parts of the country. This is reflected in lower credit ratings, which tend to make borrowing more expensive. One pre-COVID analysis from 2017 showed that, across all major ratings agencies (S&P, Moody's, and DBRS), the Atlantic provinces generally rated worse than the rest of the country in most categories (National Bank, 2017). The resulting higher interest rates increase the chances of the Atlantic provinces falling into a position where interest rates constantly exceed nominal growth, which would make it very challenging for any province to achieve sustainability. In constrast, when economic growth exceeds interest rates, the burden of existing debt will shrink over time (Kogan, Stone, DaSilva, and Rejeski, 2015).

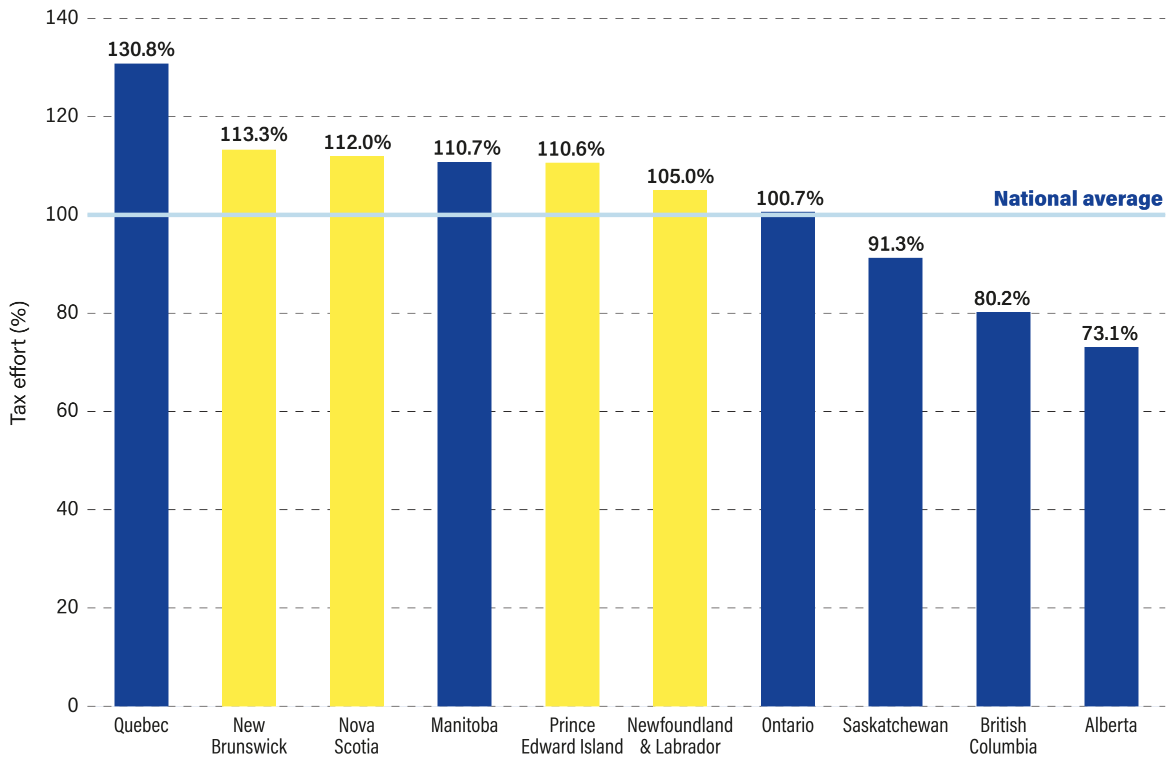
High current tax effort

Instead of eliminating their fiscal gaps by reducing expenditure, provinces could increase taxes. The Atlantic provinces, however, already have higher levels of tax effort— the level of taxes collected relative to the size of the underlying tax base—than any other province in Canada except Quebec. Figure 5 shows the high level of tax effort in the region. Provincial tax effort[4] is used as the measure in this section because it describes the level of taxation extracted from the economy within each province. This measure has the benefit of excluding natural resource revenues, to make provinces relatively comparable across the country. Figure 5 expresses this level of tax effort as a percentage of the national average level of taxation, showing which provinces have above and which below average levels of taxation, relative to other provinces.

In general, this measure reveals a high tax effort in all four Atlantic provinces, which have those with the highest burden of taxation (as measured by tax effort relative to the national average) in the country along with Manitoba and Quebec. New Brunswick had the highest level of tax effort in the region and second highest in the country in 2017/18

4. Here we have replicated a calculation that first appeared in Tombe, 2018: tax effort = actual revenue from tax bases included in equalization relative to potential revenue if national average tax rates were applied.

Figure 5: Tax effort (%), by province, 2017/18



Note: Tax effort is actual revenue from tax bases included in equalization (excluding revenue from natural resources) relative to potential revenue if national average tax rates were applied.
Sources: Canada, Dep't of Finance, 2020; calculations by authors.

(the latest year of comparable data), with a level of taxation at 113.3% of the national average. Nova Scotia is next at 112%, followed by Prince Edward Island at 110.6% and Newfoundland & Labrador at 105%. By comparison, the level of taxation in Ontario was 100.7% and in Alberta, the province with the lowest tax effort, tax revenue was 73.1% of the national average.

Only Quebec has higher tax effort than the Atlantic provinces. One possible reason for Quebec's ability to maintain the high rates of personal and consumption taxation that drive this outcome is that competitive pressure from other provinces is weaker given the obstacle to mobility across provinces as a result of the language barrier. In any event, Quebec is the only province with higher a level of tax effort than the Atlantic provinces.

Atlantic Canada's high level of tax effort is a function of high tax rates in most of the largest areas of provincial taxation. Personal income-tax rates, corporate income-tax rates, and sales tax rates are all amongst the highest in the country in each of the Atlantic provinces. A recent study of marginal tax rates at various levels shows the Atlantic province as a group and individually have among the highest top marginal tax rates[5] at all four income

5. Marginal income-tax rates refer to the rate of taxes charged on the next dollar of income earned.

levels examined (Hill, Li, and Palacios, 2020). For example, Nova Scotia had the highest marginal tax rate among all provinces at the $150,000 and $300,000 income levels, second highest at $50,000, and third highest at $75,000. New Brunswick had the second highest marginal tax rate at $300,000, while Prince Edward Island and Newfoundland & Labrador were fifth and sixth at that level.

The region faces similar challenges when it comes to the general corporate income-tax rate. The Atlantic provinces have the four highest general corporate income-tax rates in the country, ranging from 14% in New Brunswick to 16% in Prince Edward Island and Nova Scotia. In fact, the general corporate income-tax rate in Nova Scotia is twice as high as it is in Alberta, and the province with the lowest tax in the region—New Brunswick—still has a corporate income-tax rate two full percentage points higher than the highest in the rest of the country.

These high tax rates create a significant disincentive for investment in the region. They also pose a further problem for provincial government finances, because they could make it more difficult, and in some instances impossible, for governments in the region to generate more revenue to address future fiscal shortfalls by raising tax rates.[6] For example, attempting to generate more revenue by increasing the general corporate income-tax rate in any of the Atlantic provinces would likely lead to a decrease in revenue collected. Ferede and Dahlby (2019) have estimated that increasing corporate income-tax rates would reduce corporate tax revenue in each of the Atlantic provinces because they would reduce the size of the underlying tax base to which the rate is applied by distorting economic decision making.

High marginal income-tax rates also create a disincentive for professionals, other highly skilled workers, business owners, and entrepreneurs to move to (or stay in) Atlantic Canada. Further, high marginal personal income-tax rates mean that it would be difficult to raise more money by raising personal income-tax rates, particularly if these efforts are applied primarily to those earning a high income as is frequently politically popular. A recent analysis showed that increases to top marginal personal income-tax rates in Ontario produced only small increases in government revenue (Ferede, 2020).

The high tax rates and resulting high level of tax effort represent a further fiscal challenge in that they leave the province with little or no room to generate additional revenue through tax rate increases if fiscal circumstances begin to worsen. In extremely difficult fiscal circumstances, a jurisdiction with low tax effort would have a greater likelihood of successfully

6. While the general corporate income-tax rate gives us an idea of the tax burden facing corporations, the marginal effective tax rate (METR) is what ultimately matters to investors. Because of a number of complexities in the tax code, such as the Federal Atlantic Investment Tax Credit, some industries in fact enjoy very low rates of taxation in Atlantic Canada. However, for the sake of simplicity and in order to generalize, we have focused here on the general corporate income-tax rate. See Bazel and Mintz (2020) for a discussion of METRs in the provinces.

raising more revenue through rate increases than provinces like those in Atlantic Canada where tax effort is high. Although successful fiscal consolidations in Canada's recent history have generally focused on spending reductions rather than tax increases, high tax effort signals a possible future problem for governments throughout the Atlantic region.

Reliance on federal transfers

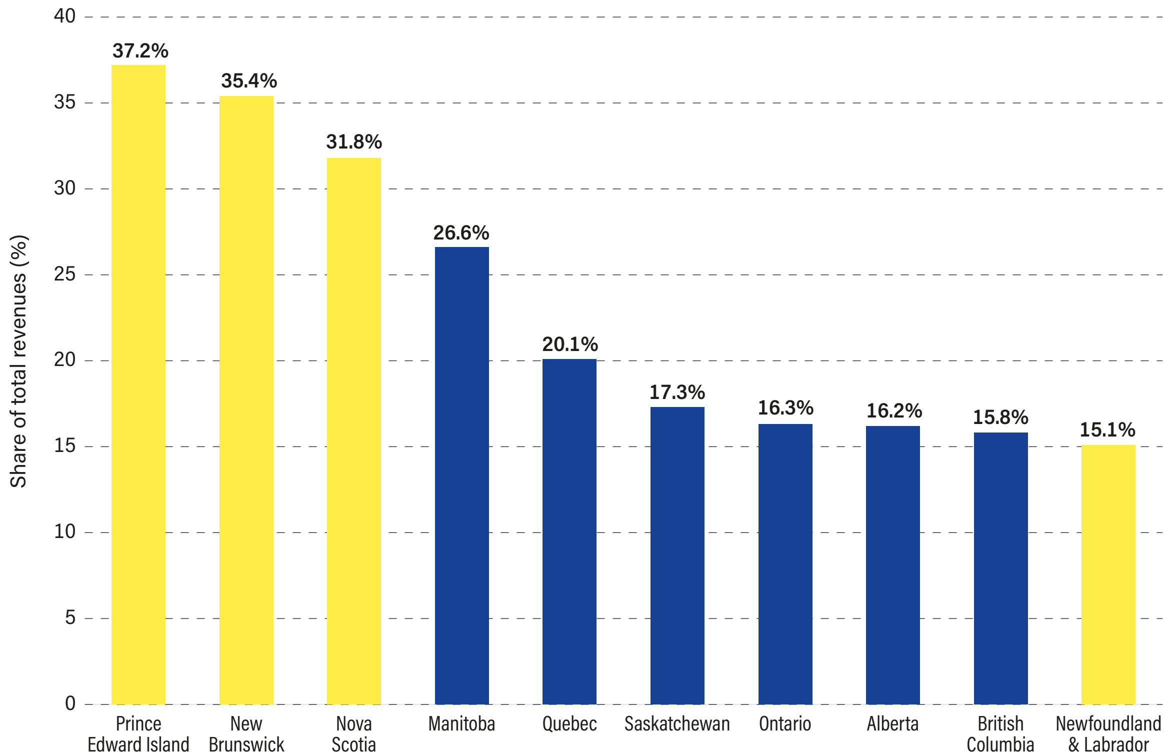
All three Maritime Provinces are markedly more reliant on federal transfers to fund government activities than is the case for other provinces in Canada. This is an additional source of precariousness for public finances in the region as it makes public finances more vulnerable to decisions made in Ottawa. If fiscal challenges or another factor prompts the federal government to reduce transfers to the provinces, the Maritime provinces would be more exposed to the resulting fiscal risks than provinces that are less reliant on federal transfers. Meanwhile Newfoundland & Labrador looks to the federal government for financial rescue as its oil revenues continue to fall and its debt accumulates apace.

Figure 6 shows the share of provincial revenue in each province that comes from the federal government as federal transfers; the numbers are striking. The three Maritime provinces were the highest in the country by this measure in 2018/19, with Prince Edward Island ranking first at 37.2% of revenues. New Brunswick second at 35.4%, and Nova Scotia third at 31.8%. To illustrate the gap between Atlantic Canada and the rest of the country on this measure, consider that the next highest province is Manitoba at 26.6% and the number is between 15.8% and 17.3% in provinces that do not receive equalization payments. Newfoundland & Labrador currently receives a relatively low share of its revenue from federal transfers,[7] but was significantly more reliant on federal transfers as recently as a decade ago when the province was receiving equalization payments. Overall, provincial reliance on federal transfers in the region has shrank markedly over the past few decades, but it is clearly still much higher than in most Canadian jurisdictions.

The primary reason that the Maritime provinces are so much more heavily reliant on federal transfers than other jurisdictions is the high level of equalization payments to these provinces. Equalization payments as a share of total revenue are higher in the three Maritime provinces than any other jurisdiction. This makes the Maritime provinces uniquely vulnerable to changes in the equalization formula or, simply, changes to the dynamics of the equalization program that may occur as economic circumstances change around the country. This represents yet another source of precariousness for finances in these provinces.

7. We used 2018/19 data to calculate the numbers for figure 6 because there is an anomaly in the 2019/20 data: Newfoundland & Labrador received a large, one-time payment from the federal government in 2019/20 as a result of the agreements in the Atlantic Accord. This payment inflated the province's 2019/20 numbers and, therefore, 2018/19 was used as the most recent year of comparable data.

Figure 6: Federal transfers as a share (%) of total revenues, by province, 2018/19



Sources: Provincial public accounts, 2020; Provincial budgets and updates, 2020; calculations by authors.

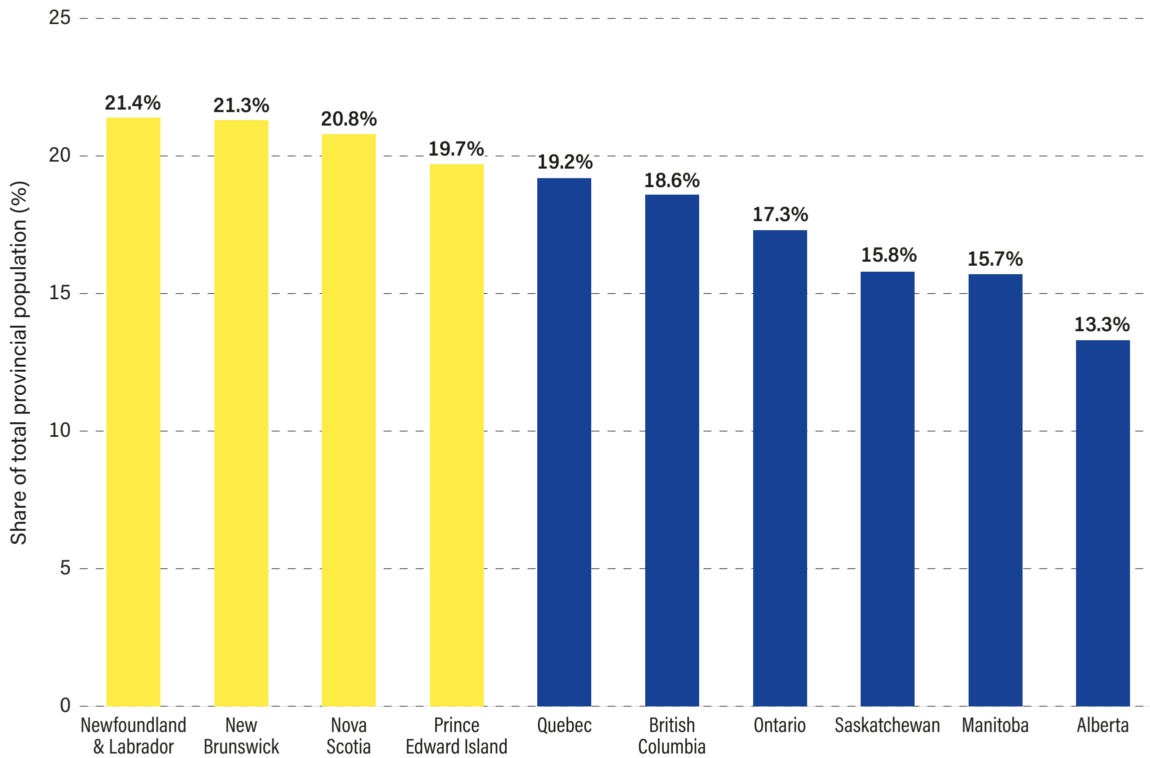
Demographics

A final issue for finances in Atlantic Canada is the region's demographics: its population is aging. The four Atlantic provinces had the highest proportion of their population over 65 years of age in 2019/20 (figure 7): Newfoundland & Labrador has the oldest population in the country at 21.4% over 65, followed by New Brunswick at 21.3%, Nova Scotia at 20.8%, and Prince Edward Island at 19.7%. This is a major contributing factor to the lower labour-force participation rates in the region, when compared to most other provinces.

This high proportion of seniors, and aging more generally, creates multiple challenges. First, an aging population with a lower share of working-age people will mute the positive fiscal effects of any labour productivity gains in the region going forward. Also importantly, an aging population will place tend to increase health-care costs. The combination of a shrinking working-age population and rising health-care costs is an additional factor likely to place significant pressure on provincial finances throughout the region in the years ahead.

Two other factors add to the case that things may become worse in Atlantic Canada, relative to the rest of the country, going forward. According to long-term population projections from Statistics Canada, most scenarios the population of the Atlantic provinces will either remain constant or decline as a share of the Canadian population. In almost every scenario, populations in Canada's Atlantic provinces are projected to grow more

Figure 7: Share (%) of population over 65 years of age, by province, 2019/20



Sources: Statistics Canada, 2020a; calculations by authors.

slowly than in the rest of Canada. The cause at least partly of this slow growth is migration out of the region, as many young people leave to find opportunities elsewhere as a result of a weak economy (Statistics Canada, 2019).

Secondly, while all provinces in Canada will feel the crunch of an aging population, Atlantic Canada's population is projected to age faster than the rest of the country, with Newfoundland & Labrador facing the single worst provincial demographic forecast in Canada (Statistics Canada, 2019). These additional demographic factors only add to the difficult situation the region as a whole is facing.

Summary

The first section of this report showed that Atlantic Canadian provinces, like most other provinces in Canada, face significant fiscal challenges. This section has added to this analysis by identifying a number of sources of precariousness that threaten the health of provincial finances in the region going forward, and several that are more pronounced in the Atlantic region than elsewhere in the country. These sources are interest-rate risks, high current levels of tax effort, reliance on transfers from the federal government, and demographics.

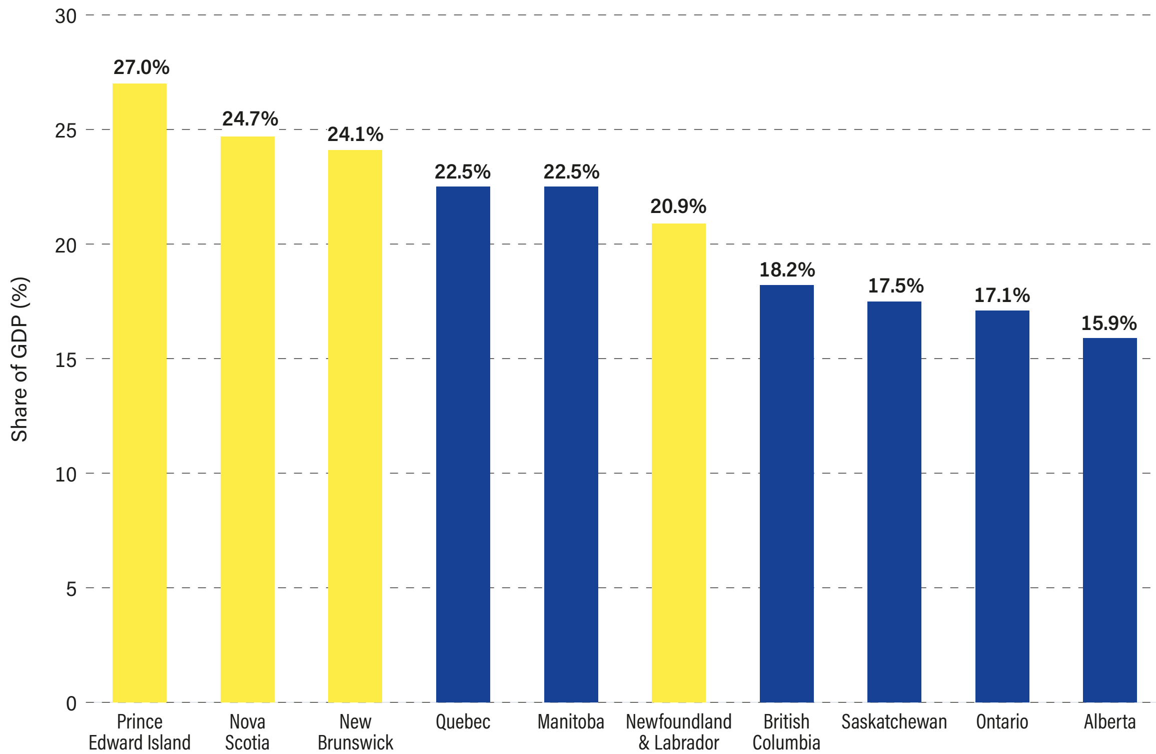
A Possible Solution—Restrain Spending

We have seen that Atlantic Canada faces significant fiscal challenges and, further, that the region's provincial finances provinces face pressure from various angles that will threaten fiscal health in the years ahead. This section discusses a possible solution in very broad terms. As we have seen, the Atlantic provinces' finances are currently unsustainable and a fiscal adjustment is necessary to prevent provincial debt-to-GDP ratios from rising in the years ahead. One of the issues identified in the previous section was a high level of tax effort. Corporate and personal income-tax rates are already amongst the highest in Canada. Further tax increases would threaten to deter investment and migration to the region and, further, there is good reason to believe that increases in corporate and personal rates of taxation may yield small or even negative revenue effects because the tax base to which higher rates would be applied could shrink.

Given that there is likely little scope to address the region's fiscal challenges on the revenue side of the ledger, we are left to consider the spending side. There, we find reasons for hope that solutions to the challenges described above can be found—although achieving these solutions will not be easy and will likely require a sustained commitment to restrained spending. Figure 8 gives one reason for hope that there may be room to address the Atlantic provinces' fiscal challenges by focusing on the spending side of the ledger. Prince Edward Island, Nova Scotia, and New Brunswick have the highest shares of program spending in the country (that is, government spending excluding debt servicing charges) relative to the size of their provincial economies. Newfoundland & Labrador ranks closer to the middle of the pack on this metric: program spending as a share of GDP is higher in Quebec and Manitoba. It is expected, however, that Newfoundland & Labrador's GDP will contract significantly this year as a result of very low oil prices, which would increase provincial spending as a share of GDP. Nevertheless, this metric shows that the region as a whole has relatively high levels of government spending and, at a glance, seems to suggest a simple long-term solution to the region's fiscal challenges: bring government spending relative to the share of the economy closer to that in other provinces in English Canada.

This solution may be simple—but it will not be easy. The primary reason for the region's high spending as a share of GDP is the smaller denominator: low levels of provincial GDP in the region drive the results rather than high levels of per-capita spending, which is actually relatively closely aligned with that of, for example, Ontario. Although the cost of some inputs (land and labour, for example) to public services are less expensive in Atlantic Canada than in other parts of the country, there are other sources of upward pressure on costs such as a more rapidly aging population. As long as GDP per capita is lower in Maritime Canada than in the rest of the country, aligning expenditures as a

Figure 8: Program spending as a share (%) of GDP, by province, 2019/20



Sources: Provincial public accounts, 2020; Provincial budgets and updates, 2020; CIBC Economics, 2020; RBC Economics, 2020; Scotiabank Economics, 2020; Statistics Canada, 2020b; calculations by authors.

share of GDP while maintaining public services at a comparable level to other regions would necessarily mean achieving this objective at lower levels of per-capita spending than elsewhere.

This challenge is compounded at least slightly by the possibility that larger provinces benefit from economies of scale that help reduce the cost of delivering services. In a recent analysis of Ontario's finances, former Bank of Canada Governor David Dodge raised the issue that economies of scale are possible in larger provinces, as evidenced by generally lower per-capita spending figures (Dodge and Dion, 2019), a suggestion that has been echoed by Ontario's Office of Financial Accountability (Financial Accountability Office, 2019). Further, an aging population will, as discussed above, continue to place pressure on provincial finances.

However, neither of these challenges diminish the need for action, and focusing on the spending side of the ledger remains the most promising strategy for achieving sustainability. In fact, it may be the only strategy possible given the difficulty of raising more revenue given high current tax effort. While it is beyond the scope of this study to examine specific options for reducing government spending in the region, research suggests that one important consideration in Atlantic Canada is the government wage bill. Both the number of government workers in the region and their levels of compensation are worth a closer look.

One study examined the number of sub-national government workers per thousand people across the country, showing that Newfoundland & Labrador (109), Nova Scotia (99), Prince Edward Island (95), and New Brunswick (85) all have employment levels in the government sector in excess of the Canadian average (84) (Eisen and Fantauzzo, 2014). Further, government workers are paid more than comparable private-sector workers in the region. One study estimated this wage gap to be 11.9% in 2018, the latest year of comparable data (Palacios, Li, and Whalen, 2020). The levels of both government employment and compensation provide promising avenues for potential savings to provincial governments in the region. Merely bringing the level of government employment to the national average, and government compensation in line with the private sector, for example, would contribute to alleviating the region's fiscal challenges.

What's more, despite the challenges described above, there are precedents in Canadian history for provinces achieving substantial deficit reductions. For example, in the late 1980s and early 1990s, Saskatchewan ran deficits that were comparable in some years to the current deficit faced in Newfoundland & Labrador, and in some cases larger than the deficits currently faced in the three Maritime provinces. Saskatchewan eliminated its deficit quickly by implementing a number of reforms. A full discussion is beyond our scope here, but it is sufficient to note that cutting government spending, and later, keeping spending growth low, was a key part of the recovery. This historical precedent suggests the best path to a substantial spending reductions that last over time is through a period of rapid consolidation on the spending side of the ledger followed by a period of restraint.

Research from Alberto Alesina, an expert on successful efforts to eliminate deficits, looked at the consequences of different types of fiscal adjustments, that is, deficit elimination exercises. Along with his coauthor Silvia Ardagna, Alesina found that the most successful consolidations relied on sustained reductions in government expenditure rather than tax increases to close the gap between revenue and expenditure. Jurisdictions that followed this approach were generally rewarded with permanent reductions in the debt-to-GDP ratio, precisely what is required in Atlantic Canada. Two other findings from Alesina's work should be noted. First, that reductions in government investment spending during fiscal consolidations are associated with increases in private investment. Second, jurisdictions that included pro-growth reforms to liberalize labour and goods markets as a part of the fiscal adjustment were found to be more likely to experience positive economic growth. In sum, the authors found that swift elimination of deficits need not have negative impacts, and may in fact enhance economic growth (Alesina and Ardagna, 2012).

One reason that large, fast fiscal adjustments may have a higher probability of success is that demanding large cuts from government departments requires them to rethink their business models in their entirety rather than seeking to find savings at the margins of existing strategies. Requirements for large, rapid spending reductions force governments

to consider whether they can plausibly withdraw entirely from specific areas of government activity that may be successfully delivered by the private sector. This is precisely the exercise that Saskatchewan and Alberta went through in the 1990s, when the governments in both jurisdictions demanded large, rapid spending cuts from various ministries. It should be noted that Saskatchewan, although larger than any of the Atlantic provinces, was and is a small province itself, with large rural areas, and so may not have enjoyed benefits from economies of scale significantly greater than those available to the Atlantic Provinces.

Clearly, closing the fiscal gap through spending reductions and guarding against the various sources of risk described in preceding sections will not be easy, but the data presented in this study suggest it is the most promising path for doing so. The Atlantic provinces would be well advised to carefully examine the experience of jurisdictions that enacted rapid large-scale spending reductions during the 1990s to identify policy strategies that may be applicable today as they seek to achieve long-term fiscal sustainability.

Conclusion

The economic downturn arising from COVID-19 has created substantial deficits for provincial governments across the country. In regions like Atlantic Canada, this downturn has served to amplify long-standing fiscal and sustainability challenges. The challenge is particularly severe in Newfoundland & Labrador.

This study has reviewed a number of key economic, fiscal, and demographic indicators that cumulatively demonstrate that public finances are subject to more risk in Atlantic Canada than the rest of the country. A combination of high debt and debt servicing costs (and associated interest-rate risks), a high level of tax effort, a heavier reliance on federal transfers, and an aging population place the four Atlantic provinces in a position that is more precarious that the rest of the country by most measures.

While our primary purpose here is to quantify the scale of the challenges facing the region up to and during the COVID-19 downturn, the data reveal some clues as to where the region may need to go to solve its fiscal and economic challenges. High levels of government spending relative to the size of provincial economies are a contributing factor to the region's currently unsustainable path. Reductions in spending would need to be carefully implemented but are likely a necessary ingredient for future prosperity. Experiences from other jurisdictions that have faced similar sets of challenges, particularly Alberta Saskatchewan in the 1990s, may have lessons for policy makers in the Atlantic region today.

Several indicators presented in this report suggest the state of Atlantic finances is precarious compared to the outlook in most other Canadian provinces. Policy makers in the region should keep these risks front of mind in developing fiscal plans for each of the Atlantic provinces in the years to come.

References

Alesina, Alberto F., and Silvia Ardagna (2012). *The Design of Fiscal Adjustments*. NBER Working Paper 18423. <https://www.nber.org/system/files/working_papers/w18423/w18423.pdf>, as of December 7, 2020.

Auerbach, Alan J. (1994). *The U.S. Fiscal Problem: Where We Are, How We Got Here, and Where We're Going*. NBER Working Paper 4709. <https://www.nber.org/system/files/working_papers/w4709/w4709.pdf>, as of December 7, 2020.

Bazel, Phillip, and Jack Mintz (2020). *The 2019 Tax Competitiveness Report: Canada's Investment and Growth Challenge*. SPP Research Paper 13:1. School of Public Policy, University of Calgary. <https://www.policyschool.ca/wp-content/uploads/2020/03/2019-Tax-Competitiveness-Bazel-Mintz.pdf>, as of December 7, 2020

British Columbia, Office of the Comptroller General (2020). *Public Accounts 2019/20*.

Canada, Department of Finance (2020). *Federal Equzalization Workbooks*, S-Table 5 and S-Table 8. Response to request for data, December 18, 2020.

CIBC Economics (2020). *Provincial Outlook: Brighter Past; Still Uncertain Future*. Provincial Forecast (Andrew Grantham, September 25). <https://economics.cibccm.com/economicsweb/cds?ID=11572&TYPE=EC_PDF>, as of October 29, 2020.

Dodge, David A., and Richard Dion (2019). *Pre-Budget Analysis of Government Finances*. Bennett Jones (February 19). <https://www.bennettjones.com/PreBudgetAnalysis>, as of December 7, 2020.

Eisen, Ben, and Shaun Fantauzzo (2014). *The Size and Cost of Atlantic Canada's Public Sector*. Op-ed, September 18. Atlantic Institute for Market Studies. <https://www.aims.ca/op-ed/the-size-and-cost-of-atlantic-canadas-public-sector/>, as of December 7, 2020.

Ferede, Ergete (2020). The Revenue Effects of Rescinding Ontario's Tax Rate Hike on High-Income Earners. Fraser Institute. <https://www.fraserinstitute.org/sites/default/files/revenue-effects-rescinding-ontarios-tax-rate-hike-high-income-earners.pdf>, as of December 7, 2020.

Ferede, Ergete, and Bev Dahlby (2019). *The Effect of Corporate Income Tax on the Economic Growth Rates of the Canadian Provinces*. SPP Technical Paper 12:29. School of Public Policy, University of Calgary. <https://www.policyschool.ca/wp-content/uploads/2019/09/Canada-CIT-Dahlby-Ferede.pdf>, as of December 7, 2020.

Financial Accountability Office of Ontario [FAO] (2019). Comparing Ontario's Fiscal Position with Other Provinces. <https://www.fao-on.org/en/Blog/Publications/inter-prov-comparisons-feb-2019#_ftnref11>, as of December 7, 2020.

Finances of the Nation (2020). *Fiscal Gap Simulator*. <https://financesofthenation.ca/fiscal-gap-simulator/>, as of December 7, 2020.

Fuss, Jake, and Alex Whalen (2020). Governments across Canada Must Reduce Spending Post-Recession. *Fraser Forum: the Fraser Institute Blog*. <https://www.fraserinstitute.org/blogs/governments-across-canada-must-reduce-spending-post-recession>, as of December 7, 2020.

Government of Alberta (2020). *Annual Report, 2019/20*.

Government of Manitoba (2020). *Annual Report and Public Accounts for the year ended March 31, 2020*.

Government of New Brunswick (2020). *Public Accounts (Volume 1): Consolidated Financial Statements for the fiscal year ended 31 March 2020*.

Government of Nova Scotia (2020). *Public Accounts (Volume 1): Consolidated Financial Statements for the fiscal year ended March 31, 2020*.

Government of Saskatchewan (2020). *Public Accounts 2019/20, Volume 1*.

Hill, Tegan, Nathaniel Li, and Milagros Palacios (2020). *Canada's Rising Personal Tax Rates and Falling Tax Competitiveness, 2020*. Fraser Institute. <https://www.fraserinstitute.org/studies/canadas-rising-personal-tax-rates-and-falling-tax-competitiveness-2020>, as of December 7, 2020.

Institute for Fiscal Studies and Democracy [IFSD] (2018). *Decomposing Provincial-Canada Yield Spreads: Does Fiscal Discipline Matter?* University of Ottawa. <https://www.ifsd.ca/web/default/files/Presentations/Reports/18007%20-%20Decomposing%20Provincial-Canada%20Yield%20Spreads-%20Does%20Fiscal%20Discipline%20Matter%3F%20-%2030%20August%202018%20-%20FINAL.pdf>, as of December 7, 2020.

Kogan, Richard, Chad Stone, Bryann DaSilva, and Jan Rejeski (2015). *Difference between Economic Growth Rates and Treasury Interest Rates Significantly Affects Long-Term Budget Outlook*. Center on Budget and Policy Priorities (February 27). <https://www.cbpp.org/sites/default/files/atoms/files/2-27-15bud.pdf>, as of December 7, 2020.

National Bank of Canada (2017). *Provincial Ratings Snapshot*. National Bank of Canada, Public Sector Research (August 15). <https://www.nbc.ca/content/dam/bnc/en/rates-and-analysis/economic-analysis/ProvincialRatingsSnapshot_170815.pdf>, as of December 7, 2020.

Newfoundland & Labrador, Department of Finance (2020a). *Budget 2020*. <https://www.gov.nl.ca/budget/2020/> as of October 20, 2020.

Newfoundland & Labrador, Department of Finance (2020b). *Fiscal Update July 2020*. <https://www.gov.nl.ca/fin/files/Fiscal-Update-20-21-Presentation-July-24-2020.pdf>, as of October 20, 2020.

Ontario, Treasury Board Secretariat (2020). *Public Accounts of Ontario; Annual Report and Consolidated Financial Statements 2019/20*.

Palacios, Milagros, Nathaniel Li, and Alex Whalen (2020). *Comparing Government and Private Sector Compensation in Atlantic Canada*. Fraser Institute. <https://www.fraserinstitute.org/studies/comparing-government-and-private-sector-compensation-in-atlantic-canada>, as of December 7, 2020.

Parliamentary Budget Officer [PBO] (2020). *Fiscal Sustainability Report 2020*. <https://www.pbo-dpb.gc.ca/en/blog/news/RP-1920-029-S-fiscal-sustainability-report-2020-rapport-viabilite-financiere-2020>, as of December 7, 2020.

Prince Edward Island, Ministry of Finance (2020a). *Provincial Budget 2020-2021*. <https://www.princeedwardisland.ca/en/information/finance/provincial-budget-operating-budget>, as of October 20, 2020.

Prince Edward Island, Ministry of Finance (2020b). *Fall Fiscal Update 2020-2021*. <https://www.princeedwardisland.ca/sites/default/files/publications/fiscal_update_2020_september.pdf>, as of October 20, 2020.

Quebec, Ministry of Finance (2020a). *Budget 2020-2021*. <http://www.budget.finances.gouv.qc.ca/budget/2020-2021/index_en.asp>, as of October 20, 2020.

Quebec, Ministry of Finance (2020b). *Québec's Economic and Financial Situation* (July 19). <http://www.budget.finances.gouv.qc.ca/budget/portrait_juin2020/index_en.asp>, as of October 20, 2020.

RBC Economics (2020). *Diverse Yet Together in Experiencing Historic Recession*. Provincial Outlook (September 10. <https://royal-bank-of-canada-2124.docs.contently.com/v/provincial-economies-diverse-yet-together-in-experiencing-historic-recession-report>, as of October 20, 2020.

Scotiabank Economics (2020). *Scotiabank's Provincial Outlook: Provinces Gear Up for Second Wave*. Scotiabank Provincial Analysis (Marc Desormeaux, October 15) <https://www.scotiabank.com/ca/en/about/economics/economics-publications/post.other-publications.the-provinces.scotiabank-s-provincial-outlook--october-15--2020-.html>. as of October 29, 2020.

Statistics Canada (2019). *Population Projections for Canada (2018 to 2068), Provinces and Territories (2018 to 2043)*. <https://www150.statcan.gc.ca/n1/en/pub/91-520-x/91-520-x2019001-eng.pdf?st=cSgR9s2G>, as of December 7, 2020.

Statistics Canada (2020a). Table 17-10-0005-01. *Population Estimates on July 1st, by Age and Sex*. <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1710000501>, as of December 7, 2020.

Statistics Canada (2020b). Table 36-10-0222-01. *Gross Domestic Product, Expenditure-Based, Provincial and Territorial, Annual* (x *1,000,000)*. <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3610022201>, as of December 7, 2020.

Tombe, Trevor (2018). *Unpacking Canada's Equalization Payments for 2018/19*. School of Public Policy, University of Calgary. <https://www.policyschool.ca/unpacking-canadas-equalization-payments-2018-19/>, as of December 7, 2020.

Tombe, Trevor (2020). Provincial Debt Sustainability in Canada: Demographics, Federal Transfers, and COVID-19. *Canadian Tax Journal*, forthcoming.

Turner, David, and Francesca Spinelli (2012). Interest-Rate-Growth Differentials and Government Debt Dynamics. *OECD Journal: Economic Studies* 20/21. <http://www.oecd.org/economy/growth/interest-rate-growth-differentials-and-government-debt-dynamics.pdf>, as of December 7, 2020.

About the authors

Ben Eisen

Ben Eisen is a Senior Fellow in Fiscal and Provincial Prosperity Studies and former Director of Provincial Prosperity Studies at the Fraser Institute. He holds a B.A. from the University of Toronto and an M.P.P. from the University of Toronto's School of Public Policy and Governance. Prior to joining the Fraser Institute, Mr. Eisen was the Director of Research and Programmes at the Atlantic Institute for Market Studies in Halifax. He also worked for the Citizens Budget Commission in New York City, and in Winnipeg as the Assistant Research Director for the Frontier Centre for Public Policy. Mr. Eisen has published influential studies on several policy topics, including intergovernmental relations, public finance, and higher education. He has been widely quoted in major newspapers including the *National Post*, *Chronicle Herald*, *Winnipeg Free Press*, and *Calgary Herald*.

Alex Whalen

Alex Whalen is a Policy Analyst with the Fraser Institute and co-ordinator for many of the activities in the recently launched Atlantic Canada division. Prior to joining the Institute, he was the Vice-President of the Atlantic Institute for Market Studies (AIMS), which merged with the Fraser Institute in November 2019. He is a graduate of the Schulich School of Law at Dalhousie University, where he focused on business and tax law, and of the UPEI Business School, where he focused on economics and entrepreneurship. His writing has appeared in the *Globe and Mail, National Post*, *Chronicle-Herald*, and numerous other outlets. A native of Summerside, Prince Edward Island, Mr. Whalen writes regularly on public finance, taxation, and economics.

Milagros Palacios

Milagros Palacios is the Associate Director for the Addington Centre for Measurement at the Fraser Institute. She holds a B.S. in Industrial Engineering from the Pontifical Catholic University of Peru and a M.Sc. in Economics from the University of Concepcion, Chile. Ms. Palacios has studied public policy involving taxation, government finances, investment, productivity, labour markets, and charitable giving, for nearly 15 years. Since joining the Institute, Ms. Palacios has authored or co-authored over 150 comprehensive research studies, 100 commentaries, and four books. Her recent commentaries have appeared in major Canadian newspapers such as the *National Post*, *Toronto Sun*, *Windsor Star*, and *Vancouver Sun*.

Acknowledgments

The authors wish to thank the Lotte & John Hecht Memorial Foundation for its generous support of this project. The authors also wish to thank the internal and external reviewers who provided valuable feedback on the study

All remaining errors and oversights are the responsibility of the authors. As the researchers have worked independently, the views and conclusions expressed in this paper do not necessarily reflect those of the Board of Directors of the Fraser Institute, the staff, or supporters.

Publishing Information

Distribution

These publications are available from <http://www.fraserinstitute.org> in Portable Document Format (PDF) and can be read with Adobe Acrobat® or Adobe Reader®, versions 7 or later. Adobe Acrobat Reader® DC, the most recent version, is available free of charge from Adobe Systems Inc. at <http://get.adobe.com/reader/>. Readers having trouble viewing or printing our PDF files using applications from other manufacturers (e.g., Apple's Preview) should use Reader® or Acrobat®.

Ordering publications

To order printed publications from the Fraser Institute, please contact us via e-mail: sales@fraserinstitute.org; telephone: 604.688.0221, ext. 580 or, toll free, 1.800.665.3558, ext. 580; or fax: 604.688.8539.

Media

For media enquiries, please contact our communications department via e-mail: communications@fraserinstitute.org; telephone: 604.714.4582.

Copyright

Date of issue

2021

ISBN

978-0-88975-640-3

Citation

Ben Eisen, Alex Whalen, and Milagros Palacios (2021). *Atlantic Canada's Precarious Public Finances*. Fraser Institute. <http://www.fraserinstitute.org>.

Supporting the Fraser Institute

To learn how to support the Fraser Institute, please contact us via post: Development Department, Fraser Institute, Fourth Floor, 1770 Burrard Street, Vancouver, British Columbia, V6J 3G7, Canada; telephone: toll-free to 1.800.665.3558, ext. 548; e-mail: development@fraserinstitute.org; or visit our webpage: <http://www.fraserinstitute.org/support-us/overview.aspx>.

About the Fraser Institute

Our mission is to improve the quality of life for Canadians, their families and future generations by studying, measuring and broadly communicating the effects of government policies, entrepreneurship and choice on their well-being.

Notre mission consiste à améliorer la qualité de vie des Canadiens et des générations à venir en étudiant, en mesurant et en diffusant les effets des politiques gouvernementales, de l'entrepreneuriat et des choix sur leur bien-être.

Peer review—validating the accuracy of our research

The Fraser Institute maintains a rigorous peer review process for its research. New research, major research projects, and substantively modified research conducted by the Fraser Institute are reviewed by experts with a recognized expertise in the topic area being addressed. Whenever possible, external review is a blind process. Updates to previously reviewed research or new editions of previously reviewed research are not reviewed unless the update includes substantive or material changes in the methodology.

The review process is overseen by the directors of the Institute's research departments who are responsible for ensuring all research published by the Institute passes through the appropriate peer review. If a dispute about the recommendations of the reviewers should arise during the Institute's peer review process, the Institute has an Editorial Advisory Board, a panel of scholars from Canada, the United States, and Europe to whom it can turn for help in resolving the dispute.

Purpose, Funding, and Independence

The Fraser Institute provides a useful public service. We report objective information about the economic and social effects of current public policies, and we offer evidence-based research and education about policy options that can improve the quality of life.

The Institute is a non-profit organization. Our activities are funded by charitable donations, unrestricted grants, ticket sales, and sponsorships from events, the licensing of products for public distribution, and the sale of publications.

All research is subject to rigorous review by external experts, and is conducted and published separately from the Institute's Board of Directors and its donors.

The opinions expressed by authors are their own, and do not necessarily reflect those of the Institute, its Board of Directors, its donors and supporters, or its staff. This publication in no way implies that the Fraser Institute, its directors, or staff are in favour of, or oppose the passage of, any bill; or that they support or oppose any particular political party or candidate.

As a healthy part of public discussion among fellow citizens who desire to improve the lives of people through better public policy, the Institute welcomes evidence-focused scrutiny of the research we publish, including verification of data sources, replication of analytical methods, and intelligent debate about the practical effects of policy recommendations.