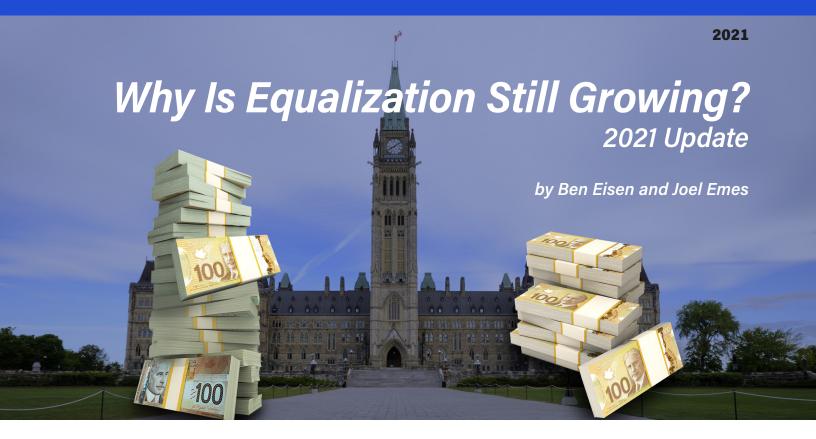
# FRASER BULLETIN





#### MAIN CONCLUSIONS

- Equalization is a federal government program that transfers tax dollars collected from taxpayers across the country to provincial governments in provinces with lower fiscal capacity, that is, less ability to raise revenue at given tax rates.
- In recent years, largely as a result of economic slumps in provinces with large oil and gas sectors, the gap between the fiscal capacity of recipients and non-recipients has shrunk significantly. Despite this narrowing gap, aggregate equalization payments continue to grow under a rule in the program's formula that requires continued year-to-year growth.
- The convergence in the fiscal capacities of recipient and non-recipient provinces is causing the Fixed Growth Rate (FGR) rule to act as a floor for payments rather than a ceiling that constrains growth, the intended purpose of the rule.

- Payments that would not be made in the absence of the Fixed Growth Rate (FGR) rule should be considered overpayments.
- This bulletin provides the most detailed existing forecasts of the evolution of likely adjustment payments resulting from the Fixed Growth Rate (FGR) rule over the next five years under various economic scenarios.
- One scenario leads to a forecast of equalization overpayments rising from \$500 million in 2021/22 to \$8.9 billion in 2025/26.
- All of our scenarios imply significant changes in the distribution of equalization payments in the years ahead. Specifically, we project that by 2025/26 Ontario is likely to become a recipient province. This has important implications for the equalization entitlements of all other have-not provinces.

#### Introduction

Equalization is a federal government program that aims to ensure Canadians in all provinces have access to "reasonably comparable public services at comparable levels of taxation" (Canada, Dep't of Finance, 2011). The program works by providing cash payments to governments in less prosperous provinces that have a lower "fiscal capacity"—less ability to raise revenues at average rates of taxation.

Since the goal of the program is to equalize the ability of provinces to fund public services, program logic suggests that, if the disparity between the fiscal capacities of richer and poorer provinces shrinks, then overall equalization payments should shrink as well. However, as we forecast in a 2017 paper, *Should Equalization Keep on Growing in an Era of Converging Fiscal Capacity* (Eisen, Emes, and Lafleur, 2017), rules that were added to Canada's equalization formula in 2009 have prevented this from happening in recent years, and will prevent it from doing so in the years ahead. In other words, as the gap between rich and poorer provinces has shrunk, overall nominal payments have continued to rise and must continue to rise in coming years.

This counter-intuitive feature of the equalization program's current design is the result of a rule introduced in 2009 that requires payments to increase

each year on a growth path reflecting a three-year average of nominal gross domestic product (GDP) growth (Canada, Dep't of Finance, 2009). We refer to this rule as the Fixed Growth Rate (FGR) rule throughout this bulletin. The rule was implemented in an effort to control program costs which had rose quickly in the preceding decade. However, because the disparity between the fiscal capacity of recipient and non-recipient provinces have contracted significantly in recent years (especially since 2015), the rule setting a fixed growth rate to aggregate equalization payments now requires an upward adjustment rather than a downward adjustment to meet the requirements of the fixed growth rate rule. In other words, a rule introduced to serve as a ceiling on federal equalization payments has come to act as a floor, driving costs up. Given that the COVID-19 pandemic and the collapse of oil prices in 2020 (from which prices have largely recovered), the convergence of fiscal capacity between provinces accelerated in 2020.

This bulletin illustrates the extent to which the FGR rule has increased program costs in recent years and provides updated projections of its impact on program costs in the years ahead under reasonable assumptions. It also provides a projection over a longer time horizon than past analysis, providing equalization forecasts to 2025/26.

### Overview of Canada's Equalization Program and the Origins of the Fixed Growth Rate Rule

On its face, the objective of the federal equalization program is relatively straightforward. The program's objective is to ensure that all provincial governments, regardless of economic disparities, are able to provide "comparable public services" at "reasonably comparable levels of taxation" (Canada, Dep't of Finance, 2011). To simplify somewhat, the federal government tries to achieve this objective by directly sending money to the governments of less-prosperous provinces where it is more difficult to generate own-source revenue.

The equalization payment is a substantial source of revenue for most recipient provinces. Currently, five of the ten provinces receive payments: Quebec, Manitoba, Nova Scotia, Prince Edward Island, and

New Brunswick. For each of these provinces, equalization in 2021/22 will be the largest source of federal transfer payments and will represent over ten% of provincial revenue. *Figure 1* shows that the forecast share of provincial revenue ranges from 10.5% in Quebec to 21.9% in New Brunswick.

The specific rules governing equalization have changed many times over the years. For example, the program's treatment of resource revenues has been a near-constant source of disagreement between the provinces and the federal government. Disputes such as these have led to the formula being changed repeatedly over the years. The Department of Finance describes the broad framework of the program as it exists today as follows:

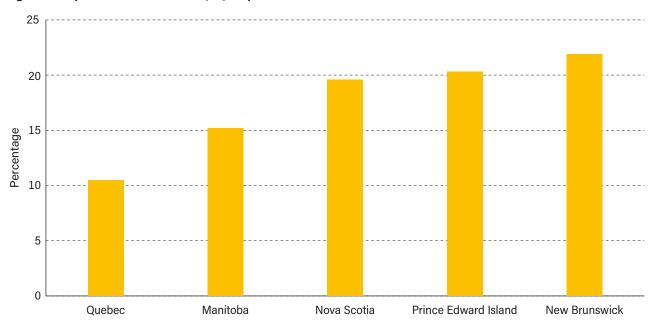


Figure 1: Equalization as share (%) of provincial revenue, 2021/22

Sources: Canada, Dep't of Finance, various years; Manitoba, Ministry of Finance, 2021b: 12; New Brunswick, Dep't of Finance and Treasury Board, 2021: 6; Nova Scotia, 2021a: 9; Prince Edward Island, Dep't of Finance, 2021: 7; Quebec, 2020: F. 34.

- Before any adjustments, a province's per-capita equalization entitlement is equal to the amount by which its capacity is below the average fiscal capacity of all provinces—known as the "10 province standard"
- Provinces get the greater of the amount they would receive by fully excluding natural resource revenues or excluding 50% of resource revenues
- Equalization is adjusted to ensure fairness among provinces while continuing to provide a net fiscal benefit to receiving provinces from their resources equivalent to half of their per capita resource revenues.<sup>1</sup>
- Equalization is adjusted to keep total program payouts in line with the economy. The growth path is based on a three year moving average of GDP growth. This helps to ensure stability and predictability (Canada, Dep't of Finance, 2011).

The final bullet point describes a feature of the equalization program introduced in Budget 2009 and its likely future impact is the main topic of this paper. This rule, which we call the Fixed Growth Rate (FGR) rule, requires overall spending on equalization to grow at a fixed rate pegged to the rate of nominal GDP. This rule was first introduced in 2009 to help prevent further growth in program costs, which had been rapid in the years prior (Canada, Dep't of Finance, 2009). Rapid revenue growth in resource-based provinces and the emergence of Ontario as an equalization recipient threatened to cause program costs to continue growing rapidly. However, as the next section shows, much has changed in Canada's regional economic landscape since 2009 and, as a result, the effect of the rule is now the opposite of what was originally intended.

<sup>1</sup> This point refers to the application of the Fiscal Capacity Cap (FCC). The FCC ensures that no province receiving equalization winds up with a higher total fiscal capacity, including all natural resource revenues, than any non-receiving province.

## **Effects of Fiscal Capacity Convergence on Equalization Entitlements**

### Recent developments surrounding the Fixed Growth Rate rule

As we have seen, the FGR rule was intended to slow the pace of growth in program costs that had prevailed prior to 2009. The rationale for a ceiling is straightforward (whether or not one finds it convincing)—to provide cost certainty for the federal government and protect the sustainability of federal finances. However, it is more difficult to identify a compelling rationale<sup>2</sup> for the FGR rule to act as a floor on payments, since it must grow in line with nominal GDP even if the gap between richer and poorer provinces shrinks. As a result of convergence in recent years in the fiscal capacity of the various provinces, however, this is exactly what has happened and may continue in the years ahead. In other words, a rule designed primarily to ensure affordability for the federal government is now having the opposite effect and is boosting equalization payments beyond what they would be in the absence of the rule. The remainder of this bulletin focuses on the possible impact of this rule on equalization in the future.

The disparity in fiscal capacity among the provinces has been contracting quickly in recent years (Eisen and Palacios, 2020). *Figure 2* illustrates this point. Specifically, the per-person fiscal-capacity gap including all natural resources between the highest- and lowest province has fallen from \$11,002 in 2007/08 to

\$6,220 in 2019/20; and is estimated to fall to \$4,524 in 2020/21 (\$2020). This is primarily the result of a collapse in fiscal capacity in oil-rich provinces. For instance, Alberta's per-person capacity fell from a peak of \$16,859 to an estimated low of \$11,145 in 2020/21. Similarly, Saskatchewan's fiscal capacity has fallen from a peak of \$13,646 per person to a projected low of \$9,168 in 2020/21. Meanwhile, in the recipient provinces, real per-person fiscal capacity has increased. As a result, the gap between the "have" and "have not" provinces has shrunk but, because of the FGR rule, the equalization envelope has continued to grow.

As a result of this convergence, the hypothetical situation described above has come to pass, and equalization's FGR rule is now serving to boost aggregate payments to recipient provinces rather than constrain them as it was originally meant to do. Between 2018/19 and 2021/22, equalization grants have been a total of \$3.3 billion higher than they would have been in the absence of the FGR rule.

#### Projection of future impact of the FGR rule

We now present a projection for the future evolution of equalization payments to 2025/26, making reasonable assumptions that show that the FGR rule could continue driving costs up rather than constraining them in the years ahead.

2 One possible rationale for the FGR rule is that it may provide stability of payments making budget planning in recipient provinces easier. However, there are significant fairness issues associated with this rationale given that it provides a benefit of increased stability only to some provinces (recipients) and not others (non-recipients). Either increasing per-capita transfers or freeing tax room and inviting the provinces to step into it would be more logical and fair as an option for achieving this objective. In short, per-capita fiscal transfers exist to address vertical fiscal imbalances and the Fiscal Stabilization Program is designed to protect provinces from severe shocks and help provide stability to help with planning. The Equalization Program is intended to respond to durable horizontal fiscal imbalances and is not the best tool to either address vertical imbalances or ensure stability for some provincial budgets.

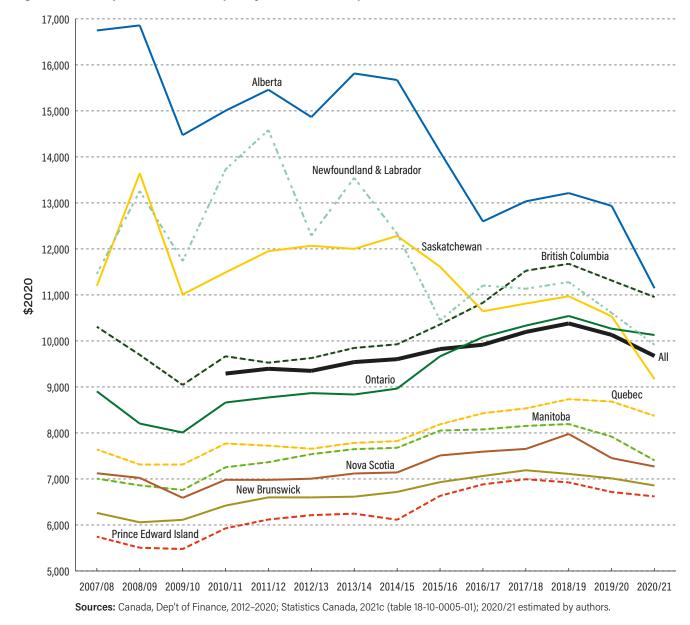


Figure 2: Per-capita total fiscal capacity (non-resource plus 100% resource revenues), 2007/08-2020/21

To demonstrate the likely continued effect of the FGR rule, we provide a sample demonstrative projection of what equalization entitlements for all provinces could be in the absence of the FGR rule compared to a projection of what they could be with the rule in place. Expected total equalization payments through to 2025/26 are already determined because of the FGR rule, what is uncertain is how that total will be distributed (Canada, Dep't of Finance, 2021).

Projections for how the equalization payments could evolve necessarily involve many assumptions surrounding uncertain variables. This projection is not meant to be a precise forecast but rather to provide a sense of how equalization payments and the effects of the FGR rule could evolve under various scenarios and, especially, the extent to which the FGR rule may drive rather than constrain costs. Annex 1 details the methods, sources and assumptions underlying the projection shown below.

Figure 3 provides our projection, based on data from Statistics Canada, the 2021/22 budgets, 2019/20 public accounts, and recent quarterly reports showing how equalization payments and the effect of the FGR rule specifically may evolve in the years ahead based on plausible scenarios and economic outcomes. Assuming no policy changes, the actual evolution of equalization payments will depend on economic

outcomes and the relative growth of fiscal capacities of the various provinces in the years ahead.<sup>3</sup>

This projection shows how adjustment payments could continue to increase quickly in the years ahead. It shows that by 2025/26 equalization adjustments resulting from the FGR rule could increase program costs from \$16.2 billion (which would be the total in

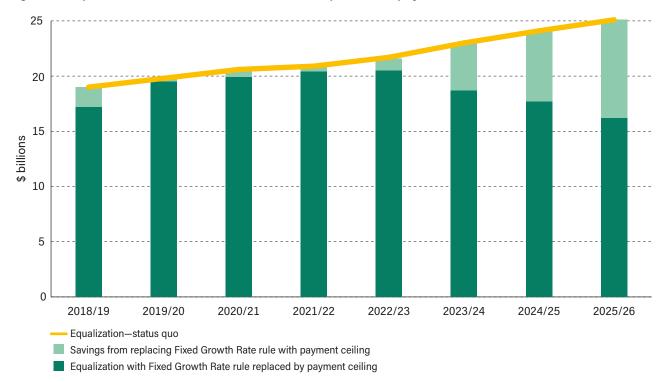


Figure 3: Impact of the Fixed Growth Rate rule on equalization payments, 2018/19-2025/26

Sources: Canada, Dep't of Finance (2012-2020). Bank forecasts: Central1, 2021a, 2021b; CIBC Economics, 2021; RBC Economics, 2021; Scotiabank, 2021; TD Economics, 2021. Price forecasts: Canada Energy Regulator, 2021; Deloitte, 2021; GLJ, 2021; Ryder Scott, 2021; US Energy Information Administration, 2021. Provincial budgets: Alberta, Treasury Board and Finance, 2021a; British Columbia, 2021; Manitoba, Ministry of Finance, 2021b; New Brunswick, Dep't of Finance and Treasury Board, 2021; Newfoundland & Labrador, 2020; Nova Scotia, Finance and Treasury Board, 2021a, 2021b; Ontario, 2021; Prince Edward Island, Dep't of Finance, 2021; Quebec, 2021; Saskatchewan, Ministry of Finance, 2021b. Provincial public accounts: Alberta, 2021; British Columbia, Office of the Comptroller General, 2021; Manitoba, Ministry of Finance, 2021a; Nova Scotia, 2021; Ontario, Treasury Board Secretariat, 2021; Saskatchewan, Ministry of Finance, 2021b. Provincial quarterly updates: Alberta, Treasury Board and Finance, 2021b; British Columbia, Ministry of Finance, 2021; Manitoba, Ministry of Finance, 2021c; Ontario, Minstry of Finance, 2021; Saskatchewan, Ministry of Finance, 2021. Statistics Canada: Statistics Canada, 2021a (table 17-10-0005-01), 2021b (table 17-10-0057-01), 2021d (table 36-10-0450-01), 2021e (table 36-10-0477-01).

<sup>3</sup> For instance, a recent economic update from the Government of Alberta shows an even more substantial increase in naturalresource revenue beyond what was expected in the spring budget. If the new projections come to pass and oil prices remain higher than expected in the spring budgets, adjustment payments may be a smaller share of overall equalization payments in future years.

the absence of the rule) to \$25.1 billion. This means that under this scenario in 2025/26, the FGR rule would result in additional equalization payments of \$8.9 billion more than they would be in the absence of the rule. This would bring aggregate adjustment payments since 2018/19 to \$24.1 billion. Finally, under this scenario adjustment payments for the FGR rule would represent 35.5% of equalization costs in the final year of 2025/26.

*Table 1* provides more detail on our projection for our end-date year (2025/26). The basic structure of table 1 is as follows. Column 1 shows the results of the first step in the equalization calculation, the initial allocation. Column 2 presents equalization after the Fiscal Capacity Cap (FCC) has been applied. These are the amounts that would be paid in the absence of the FGR rule. Column 3 provides the amounts we

project may be paid after the FGR rule's application. Column 4 shows the difference between Column 2 and Column 1, showing how the FCC changes equalization payments. Column 5 is the difference between Column 3 and Column 2 and reflects how the GDP growth rate rule influences payments.

The net impact of the FGR rule in 2025/26 is to increase payments by \$8.9 billion. Under this scenario, Ontario would be a recipient province again but the bulk of its equalization entitlement would be the result of the FGR rule. In the absence of the rule, Ontario would receive only \$234 million under this scenario in 2025/26 rather than \$5.0 billion. In fact, more than half of the FGR-rule adjustment payments in this scenario (\$4.7 billion) would flow to Ontario. In this scenario, the central Canadian provinces would receive 60.5% of all equalization payments in 2025/26.

Table 1: Projected Equalization Entitlements (\$ millions), 2025/26

	[1]	[2]	[3]	[4]	[5]
	Initial allocation	After fiscal capacity cap	After Fixed Growth Rate (FGR) rule	Change due to fiscal capacity cap	Change due to FGR rule
Newfoundland & Labrador	749	0	0	-749	0
Prince Edward Island	512	512	564	0	52
Nova Scotia	2,424	2,424	2,736	0	312
New Brunswick	2,412	2,386	2,635	-26	249
Quebec	9,470	7,479	10,230	-1,991	2,751
Ontario	234	234	5,025	0	4,791
Manitoba	3,181	3,155	3,603	-26	447
Saskatchewan	1,458	0	296	-1,458	296
Alberta	0	0	0	0	0
British Columbia	0	0	0	0	0
Canada	20,439	16,189	25,089	-4,249	8,900

Sources: Canada, Dep't of Finance (2012–2020). Bank forecasts: Central1, 2021a, 2021b; CIBC Economics, 2021; RBC Economics, 2021; Scotiabank, 2021; TD Economics, 2021. Price forecasts: Canada Energy Regulator, 2021; Deloitte, 2021; GLJ, 2021; Ryder Scott, 2021; US Energy Information Administration, 2021. Provincial budgets: Alberta, Treasury Board and Finance, 2021a; British Columbia, 2021; Manitoba, Ministry of Finance, 2021b; New Brunswick, Dep't of Finance and Treasury Board, 2021; Newfoundland & Labrador, 2020; Nova Scotia, Finance and Treasury Board, 2021a, 2021b; Ontario, 2021; Prince Edward Island, Dep't of Finance, 2021; Quebec, 2021; Saskatchewan, Ministry of Finance, 2021b. Provincial public accounts: Alberta, 2021; British Columbia, Office of the Comptroller General, 2021; Manitoba, Ministry of Finance, 2021a; Nova Scotia, 2021; Ontario, Treasury Board Secretariat, 2021; Saskatchewan, Ministry of Finance, 2021b. Provincial quarterly updates: Alberta, Treasury Board and Finance, 2021b; British Columbia, Ministry of Finance, 2021; Manitoba, Ministry of Finance, 2021c; Ontario, Minstry of Finance, 2021; Saskatchewan, Ministry of Finance, 2021. Statistics Canada: Statistics Canada, 2021a (table 17-10-0005-01), 2021b (table 17-10-0057-01), 2021d (table 36-10-0450-01), 2021e (table 36-10-0477-01).

Another feature of our baseline scenario is that Saskatchewan would also become a recipient province, receiving \$382 million in equalization entitlements in 2025/26. Table 1 shows that under our baseline scenario in 2025/26 only three provinces, Newfoundland and Labrador, Alberta, and British Columbia would not receive payments.

The tables and figures above show one possible evolution of equalization in the years ahead, but there are others depending on economic circumstances. Nevertheless, our analysis suggests that these results are generally robust to various sets of assumptions. For example, we created similar projections assuming no growth for natural-resource revenues in oilrich provinces in the years ahead. The results of our equalization projections were nearly identical for all

provinces except Saskatchewan and Newfoundland & Labrador, which saw significant increases (*table 2*). The general robustness of the forecast described above is partially the result of the formula's multi-year method for assessing fiscal capacity as well as the lags between the years used to calculate entitlements and the actual years of payment. As a result of these factors, many of the factors affecting equalization payments for the first two years in our projection are already determined.

*Table 3* shows a projection with Ontario experiencing a slower rate of economic growth (5% lower at the end of the projection than currently expected). This projection yields markedly different results as Ontario would still be a "have not" province, even without the presence of the FGR rule, but would

Table 2: Projected Equalization Entitlements (\$ millions), 2025/26—alternate scenario 1

	[1]	[2]	[3]	[4]	[5]
	Initial allocation	After fiscal capacity cap	After Fixed Growth Rate (FGR) rule	Change due to fiscal capacity cap	Change due to FGR rule
Newfoundland & Labrador	749	208	366	-540	157
Prince Edward Island	493	493	543	0	50
Nova Scotia	2,313	2,313	2,613	0	300
New Brunswick	2,324	2,324	2,563	0	240
Quebec	9,265	7,291	9,933	-1,974	2,642
Ontario	0	0	4,602	0	4,602
Manitoba	3,023	3,023	3,452	0	430
Saskatchewan	1,458	644	1,015	-814	371
Alberta	0	0	0	0	0
British Columbia	0	0	0	0	0
Canada	19,625	16,297	25,089	-3,328	8,792

Sources: Canada, Dep't of Finance (2012–2020). Bank forecasts: Central1, 2021a, 2021b; CIBC Economics, 2021; RBC Economics, 2021; Scotiabank, 2021; TD Economics, 2021. Price forecasts: Canada Energy Regulator, 2021; Deloitte, 2021; GLJ, 2021; Ryder Scott, 2021; US Energy Information Administration, 2021. Provincial budgets: Alberta, Treasury Board and Finance, 2021a; British Columbia, 2021; Manitoba, Ministry of Finance, 2021b; New Brunswick, Dep't of Finance and Treasury Board, 2021; Newfoundland & Labrador, 2020; Nova Scotia, Finance and Treasury Board, 2021a, 2021b; Ontario, 2021; Prince Edward Island, Dep't of Finance, 2021; Quebec, 2021; Saskatchewan, Ministry of Finance, 2021b. Provincial public accounts: Alberta, 2021; British Columbia, Office of the Comptroller General, 2021; Manitoba, Ministry of Finance, 2021a; Nova Scotia, 2021; Ontario, Treasury Board Secretariat, 2021; Saskatchewan, Ministry of Finance, 2021b. Provincial quarterly updates: Alberta, Treasury Board and Finance, 2021b; British Columbia, Ministry of Finance, 2021; Manitoba, Ministry of Finance, 2021c; Ontario, Minstry of Finance, 2021; Saskatchewan, Ministry of Finance, 2021a (table 17-10-0005-01), 2021b (table 17-10-0057-01), 2021d (table 36-10-0450-01), 2021e (table 36-10-0477-01).

Table 3: Projected Equalization Entitlements (\$ millions), 2025/26—alternate scenario 2

	[1]	[2]	[3]	[4]	[5]
	Initial allocation	After fiscal capacity cap	After Fixed Growth Rate (FGR) rule	Change due to fiscal capacity cap	Change due to FGR rule
Newfoundland & Labrador	645	0	0	-645	0
Prince Edward Island	479	479	519	0	40
Nova Scotia	2,226	2,226	2,464	0	238
New Brunswick	2,254	2,229	2,419	-25	190
Quebec	7,730	5,751	7,848	-1,979	2,097
Ontario	4,972	4,972	8,624	0	3,652
Manitoba	2,898	2,874	3,215	-24	341
Saskatchewan	1,214	0	0	-1,214	0
Alberta	0	0	0	0	0
British Columbia	0	0	0	0	0
Canada	22,418	18,532	25,089	-3,886	6,557

Sources: Canada, Dep't of Finance (2012–2020). Bank forecasts: Central1, 2021a, 2021b; CIBC Economics, 2021; RBC Economics, 2021; Scotiabank, 2021; TD Economics, 2021. Price forecasts: Canada Energy Regulator, 2021; Deloitte, 2021; GLJ, 2021; Ryder Scott, 2021; US Energy Information Administration, 2021. Provincial budgets: Alberta, Treasury Board and Finance, 2021a; British Columbia, 2021; Manitoba, Ministry of Finance, 2021b; New Brunswick, Dep't of Finance and Treasury Board, 2021; Newfoundland & Labrador, 2020; Nova Scotia, Finance and Treasury Board, 2021a, 2021b; Ontario, 2021; Prince Edward Island, Dep't of Finance, 2021; Quebec, 2021; Saskatchewan, Ministry of Finance, 2021b. Provincial public accounts: Alberta, 2021; British Columbia, Office of the Comptroller General, 2021; Manitoba, Ministry of Finance, 2021a; Nova Scotia, 2021; Ontario, Treasury Board Secretariat, 2021; Saskatchewan, Ministry of Finance, 2021b. Provincial quarterly updates: Alberta, Treasury Board and Finance, 2021b; British Columbia, Ministry of Finance, 2021; Manitoba, Ministry of Finance, 2021c; Ontario, Ministry of Finance, 2021; Saskatchewan, Ministry of Finance, 2021a (table 17-10-0005-01), 2021b (table 17-10-0057-01), 2021d (table 36-10-0450-01), 2021e (table 36-10-0477-01).

receive a much larger share of the equalization payments. Ultimately, this would yield about \$3.5 billion (70.1%) more in equalization payments to Ontario by 2025/26 compared to our baseline scenario. Saskatchewan and all the traditional non-receivers would have lower equalization payments, ranging from -8.3% in Prince Edward Island to -24.0% in Quebec and -26.3% in Saskatchewan.

#### Discussion

Comparing the results of the baseline scenario to the no-resource-growth scenario shows some quirks of the current formula. First and most obviously, the aggregate sum of equalization payments in each year is the same in both scenarios despite the fact that the alternate scenario would result in more convergence of fiscal capacity than the baseline scenario. In other words, because of the FGR rule, total equalization payments are insensitive to whether the fiscal capacity gap between rich and provinces grows, shrinks, or remains the same.

In short, the current equalization formula, including the FGR rule, produce questionable outcomes when it comes to both the size and distribution of the equalization envelope. On the former point, the FGR rule ensures that aggregate payments increase regardless of whether the gap between richer and poorer provinces grows or shrinks.

#### Conclusion

The internal logic of the equalization program holds that, if the disparity between the fiscal capacity of richer and poorer provinces shrinks, the need for payments should shrink as well and so the size of the equalization envelope should be allowed to decrease commensurately. The Fixed Growth Rate (FGR) rule, however, forces the envelope to grow regardless of whether fiscal capacities are converging, identical, or diverging.

Why Is Equalization Still Growing? 2021 Update has built on past work by taking into account significant

recent changes in the relative fiscal capacity of the provinces to provide updated projections of future entitlements as well as the effect of the Fixed Growth Rate (FGR) rule going forward. Further, it builds on previous analyses by extending projections into the future, through to 2025/26. These analyses suggest that the FGR rule will continue to play an important role in equalization outcomes going forward and will continue to exert upward pressure on aggregate equalization payments in the future.

#### Annex

In simple terms, this study starts with equalization data and workbooks from the Department of Finance<sup>4</sup> and combines provincial budgets, public accounts, and quarterly updates with bank forecasts and data from Statistics Canada to project fiscal capacity yields, population, and ultimately, equalization payments by province. Our purpose is not to predict exactly what the payments will be but rather to show what they could be under some reasonable scenarios.

Equalization payments to provinces for 2018/19 to 2021/22 come directly from the Department of Finance's figures and we use their 2018/19 and 2019/20 fiscal-capacity and tax-base yields to project the same through 2023/24. Further, we use the Department of Finance's 2018 and 2019 population values in our population projection from 2020 to 2023. We combine the projected yields and population in the equalization formula to produce our base estimates of equalization payments through 2025/26.

Projecting fiscal-capacity yields requires us to project the tax-base yields that make up the fiscal-capacity yields. Generally speaking, for 2020/21 we use actual values for provinces that have released their public accounts and, for those that have not, we apply revenue growth rates derived from the recent provincial budgets and quarterly updates<sup>5</sup> to 2019/20 actual values.<sup>6</sup> Similarly, we apply growth rates derived from budgets and quarterly updates to these 2020/21 values to arrive at 2021/22 projected values. We follow the same procedure for 2022/23 and 2023/24 although we mostly use provincial growth rates in nominal GDP to grow revenues because provincial budgets typically do not project that far ahead. We use this approach for three of the four tax-base yields that make up non-resource fiscal-capacity yields: personal income, business income,<sup>7</sup> and consumption income.

The final component of non-resource fiscal-capacity yields, property taxes and miscellaneous revenues, needs a slightly different approach. In simple terms, we grow national total revenue for each of the four years and then distribute it to the provinces using the weighted provincial distribution of revenue from 2019/20, the last year of actual results in the finance equalization data. National total revenues are the sum of property taxes and property transfer taxes in the provincial budgets plus local property taxes and related taxes. Growth rates for the first two years (2020/21)

- 6 We use growth projections based on budget revenues as proxies for growth in tax bases in our projection scenarios. Although these projections are less accurate when tax rates are changing, it is beyond the scope of this paper to adjust for these rate changes.
- 7 The equalization formula accounts for revenues of government business enterprises differently than it does for corporate income-tax revenue. Accounting for this level of detail is beyond the scope of this paper.
- 8 Local revenues are the sum of real property taxes, business taxes, and developer's fees at the local level from Statistics Canada (2021e; table 36-10-0477-01) for 2020. The 2021 value is projected using the five-year growth rate for the same all-Canada sum.

<sup>4</sup> The authors wish to thank the federal Department of Finance for sharing their detailed equalization calculations and note that any mistakes in their interpretation or projection are our own.

<sup>5</sup> The authors express their gratitude to the Fraser Institute's Tax Freedom Day team (Milagros Palacios, Jake Fuss, and Nathaniel Lee) for sharing the results of their detailed collection work, which ensured the budget revenue categories are as consistent as possible across the provinces.

and 2021/22) are based on the budget and Statistics Canada data and the last two year's growth rates are the average rates from 2017/18 to 2021/22.

Resource fiscal capacity follows the same general approach as for the non-resource category, but we make use of the longer resource-revenue projections provided in the Saskatchewan, Alberta, and British Columbia budgets. 9 Alberta and British Columbia produce revenue estimates through 2023/24 and in its recent budget Saskatchewan noted that it expected non-renewable revenues to grow by 7.5% on average between 2021/22 and 2024/25 (Saskatchewan, Ministry of Finance, 2021c: 53). The recent dramatic increases in oil and gas prices and the release of Alberta's quarterly report with dramatic increases in natural-resource revenue forced us to revise our original approach. Specifically, we have adjusted Alberta's 2022/23 and 2023/24 natural-resource revenues by estimating the impact of projected oil prices on the 2021/22 value in the quarterly report. This is a relatively simple approach but one that is both necessary because of the dramatic price changes and justified since natural-resource revenues are notoriously difficult to predict and the bulk of Alberta's natural-resource revenues are tied to the price of oil. Newfoundland & Labrador includes limited revenue projections in its budget and its natural-resource

revenues are also intricately tied to oil so we estimate their 2022/23 and 2023/24 natural-resource revenue using the growth rates seen in Alberta.

Our base projections switched Saskatchewan from a non-receiving province to a receiver as of 2023/24, which means we had to adjust our equalization calculations to ensure it shared in the adjustment payments made because of the Fixed Growth Rate (FGR) rule.

Our alternate scenarios consist of few changes to the base model described above. In alternate scenario 1, we set resource revenue in Newfoundland & Labrador, Saskatchewan, Alberta, and British Columbia equal to their 2020/21 values for 2021/22, 2022/23, and 2023/24. As above, this change required us to alter adjustment payments made because of the FGR rule as Newfoundland & Labrador became eligible for equalization in 2023/24.

Ontario becomes eligible for equalization in 2025/26. This requires that we alter the equalization calculation by switching the threshold used in the fiscal-capacitycap determination from the per-capita fiscal capacity of the lowest non-receiving province to the average per-capita value for receiving provinces. We also ensured that Ontario shared in the adjustment payments made because of the FGR rule.

<sup>9</sup> British Columbia, Saskatchewan, and Alberta also provide longer projections for other revenue streams but we chose not to use them so as to maintain consistency with the treatment for other provinces. Resource revenues are a special case in that there is no good proxy to replicate the rapid return of revenues expected in the provinces that choose to use their resource endowment.

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