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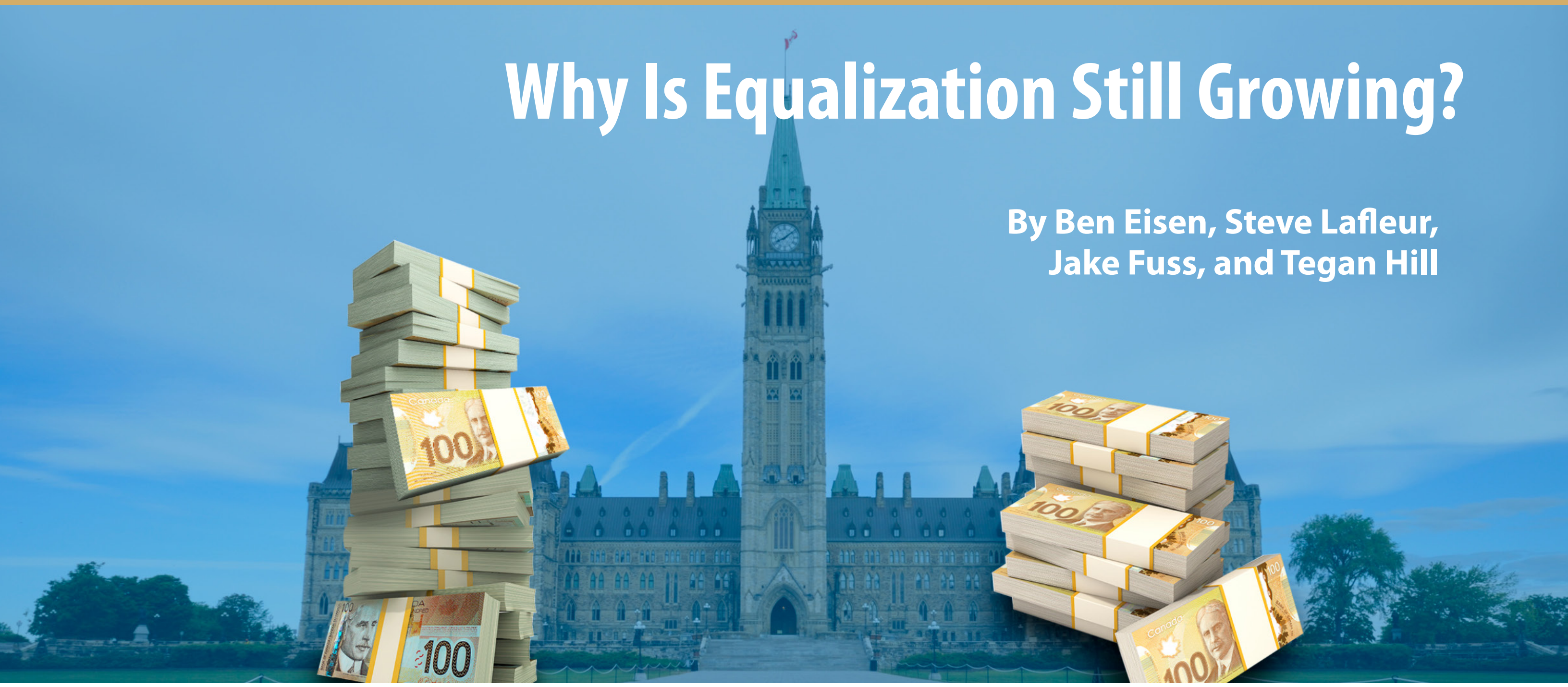


Why Is Equalization Still Growing?

By Ben Eisen, Steve Lafleur, Jake Fuss, and Tegan Hill

- Equalization is a federal government program that aims to provide all Canadians with access to comparable public services at comparable levels of taxation. To do this, it transfers federal tax dollars collected from taxpayers across the country directly to provincial governments in lower-income provinces with lower fiscal capacities.

- In recent years, largely as a result of economic slumps in some provinces, disparities between the fiscal capacity of recipient and non-recipient provinces have shrunk significantly.

- Despite the reduced fiscal disparity between richer and poorer provinces, under the program's current rules, aggregate equalization payments are required to continue growing (in line with the national growth in GDP), due to a policy change introduced in 2009.

- This bulletin shows how the convergence in the fiscal capacities of recipient and non-recipient provinces in recent years is now causing the GDP growth rate rule to act as a floor on equalization payments rather than a ceiling that constrains their growth, which was the purpose for which the rule was introduced. In fact, over the past two years, this rule has had the effect of increasing program costs by $2.1 billion or 5.7 percent.

- This bulletin discusses the history of the fixed growth rate rule, shows how its effect has changed over time, and projects the future impacts of the rule under two different economic scenarios.

- We present one reform that could eliminate the GDP growth rate rule while maintaining certainty about program costs for the federal government: replace the fixed growth rate rule with a flexible equalization envelope that expands and contracts along with the disparity in fiscal capacity, constrained only at the upper end by a ceiling that grows in line with nominal GDP.

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" (DOF, 2011). The program achieves this objective by providing cash payments to governments of less prosperous provinces that have a lower "fiscal capacity"—a term that refers to the ability to raise revenues at average rates of taxation.

Since the explicit goal of the program is to equalize the ability of various provinces to fund public services, the program's 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 forecasted in a 2017 paper, *Should Equalization Keep On Growing in an Era of Converging Fiscal Capacity*? rules that were added to Canada's equalization formula in 2009 have prevented this from happening in recent years. In other words, even as the gap between rich and poor provinces has shrunk following the commodity price fall that started in late 2014, overall payments have continued to rise.

This counter-intuitive feature of the equalization program's current design is the result of the 2009-introduced rule that requires overall payments to increase each year on a growth path reflecting a three-year average of nominal gross domestic product (GDP) growth (DOF, 2009). The rule was implemented in an effort to control program costs, which had been rising quickly in previous years. However, because the disparity between the fiscal capacity of recipient and non-recipient provinces has contracted considerably since 2014, the rule setting a fixed growth rate now requires an upward adjustment to equalization payments rather than a downward adjustment. In other words, a rule introduced to serve as a ceiling on federal government equalization payments has come to act as a floor, driving costs up.

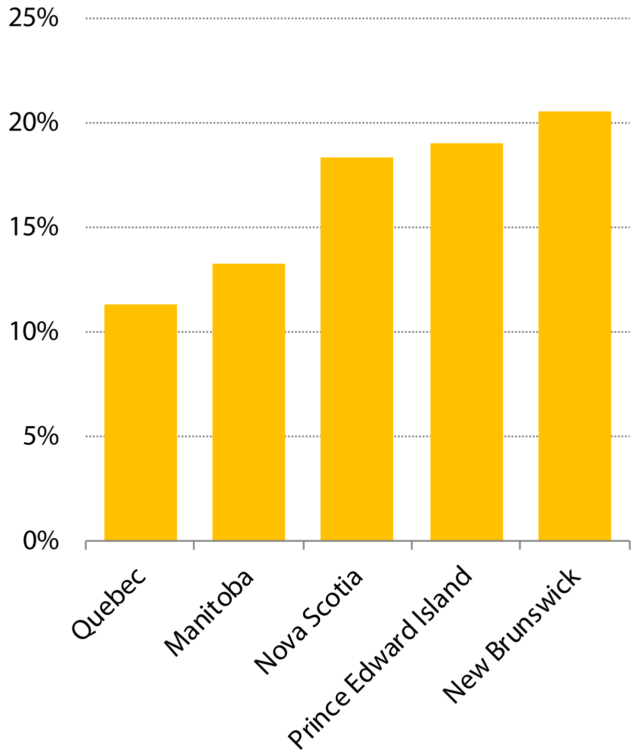
In the absence of a compelling reason to maintain a payment floor, this bulletin presents a simple option for eliminating it without undermining the current rule's advantages of affordability and certainty about costs for the federal government. Further, we show how much this feature has increased the program's costs during the past two fiscal years, and update our projections to show the likely cost of maintaining a floor on program costs over the next two years under two different scenarios.

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 stated goal is to ensure that all provincial governments, regardless of economic disparities, are able to provide "comparable public services" at "reasonably comparable levels of taxation" (DOF, 2011). In short, the program's goal is to ensure that poorer provinces are able to deliver public services that are of comparable quality to those found in higher-income provinces. To simplify somewhat, the federal government tries to achieve this objective by directly sending money to the governments of lower-income provinces that are less easily able to generate revenues.

The equalization payment is a substantial source of revenue for most recipient provinces. Currently, five of the 10 provinces receive payments: Quebec, Manitoba, Nova Scotia, Prince Edward Island, and New Brunswick. For each of these provinces, equalization in 2019/20 will be the largest source of federal transfer payments and will represent over 10 percent of

Figure 1: Equalization as a Share (%) of Provincial Revenue, 2019/20



Sources: Canada, Department of Finance (2019a); Provincial Budgets 2019/20; calculations by authors.

provincial revenues. For Quebec, Manitoba, and the Maritime provinces equalization represents between 11.3 and 20.5 percent of total revenue (DOF, 2019a; Provincial Budgets, 2019/20) (see figure 1).

The specific rules governing equalization payments have changed many times over the years. For example, the program's treatment of resource revenues has been a constant source of disagreement between the provinces and the federal government, and that dispute has 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:

- Before any adjustments, a province's per-capita equalization entitlement is equal to the amount by which its fiscal 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 by excluding 50 percent of natural resource revenues.

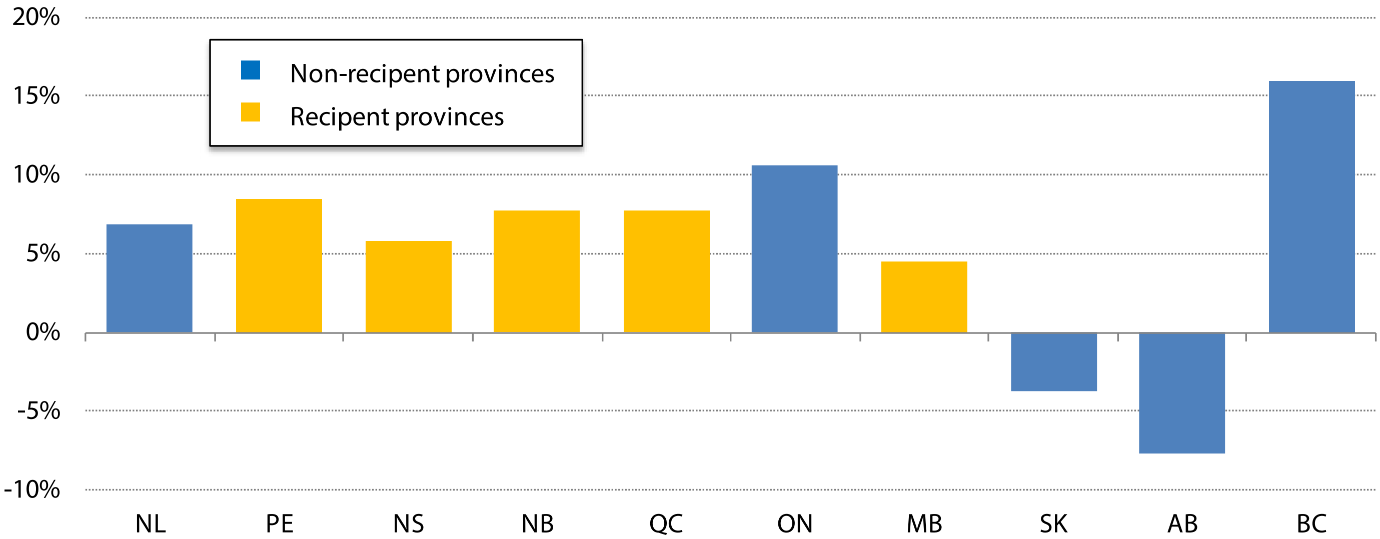
- Equalization is adjusted to ensure fairness among provinces while continuing to provide a net fiscal benefit to receiving provinces from their resources equivalent to half of their per capita resource revenues.[1]

- Equalization is also adjusted to keep the total program payout growing in line with the economy. The growth path is based on a three-year moving average of gross domestic product (GDP) growth. This helps to ensure stability and predictability while still being responsive to economic growth. (DOF, 2011).

The final bullet point describes a feature of the equalization program introduced in Budget 2009, and its possible future impact is the main topic of this paper. This rule, which we call the "GDP growth rate rule," requires that overall spending on equalization must grow at a fixed

[1] This point refers to the application of the Fiscal Capacity Cap (FCC). The FCC was introduced in 2007 to ensure that no province receiving equalization would wind up with a higher total fiscal capacity, including all of its natural resource revenues, than any non-receiving province. In 2009, the FCC standard was changed to the average of all equalization-receiving provinces in the event of the total population of equalization-receiving provinces exceeding 50% of the Canadian population. Otherwise, the 2007 rule with the cap set at the level of the lowest fiscal capacity non-receiver (Ontario was that province in 2019/20) applies.

Figure 2: Change (%) in per-capita fiscal capacity (non-resource plus 50% resource fiscal capacity), 2015/16-2017/18



Sources: Canada, Department of Finance (2019b); Statistics Canada (2019a); calculations by authors.

rate pegged to the growth of nominal GDP. The rule was first introduced in 2009 to help prevent further growth in program costs, which had been rapid in the years prior. Rapid revenue growth in resource-based provinces and the emergence of Ontario as a have-not province threatened to cause program costs to continue growing rapidly. This threat existed when there were pre-existing fiscal challenges at the federal level, as Ottawa faced a steep deficit in 2009 in the wake of a deep recession. 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 intended.

The current and future implications of the fixed growth rate rule in equalization

As we have seen, the GDP growth rate rule was introduced to slow the rapid increase in program costs that had prevailed in the years prior. 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 much more difficult to identify a defensible rationale for the GDP growth rate rule to act as a floor on equalization payments, guaranteeing it must grow in line with nominal GDP even if the gap between richer and poorer provinces shrinks. 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 have been in the absence of the rule. The remainder of this bulletin focuses on the impact of this rule on equalization payments over the past two years and projections for the future.

The disparity in fiscal capacity among the provinces has been contracting in recent years. As figure 2 shows, two non-recipient provinces—

Alberta and Saskatchewan—have seen their fiscal capacity decrease since 2015. In Alberta's case, the decline was substantial. The drop in fiscal capacity was triggered by the sharp decline in oil and gas prices in 2014, which has caused lasting pain in both provinces. By contrast, several provinces that are currently equalization recipients have seen their per-capita fiscal capacities increase significantly—by between 5 and 8 percent. This means that the disparity between Alberta and Saskatchewan and recipient provinces has shrunk, while the equalization envelope has grown.

As a result of this convergence, the hypothetical situation described above has come to pass, and equalization's fixed growth rate rule is now serving to boost aggregate payments to recipient provinces—rather than to constrain them as it was originally intended to do. This year, the federal government will spend $19.8 billion on equalization. This amount is more than the $19.5 billion that would be paid out in the absence of the fixed growth rate rule. In total, therefore, the effect of the fixed growth rate rule is to increase equalization payments this year beyond what they otherwise would have been by $345 million.

This is the second consecutive year that the fixed growth rate rule has acted as a floor rather than a ceiling on payments. Last year, its effect on program costs was even larger. In 2018, the fixed growth rate rule increased the size of the total equalization envelope by $1.8 billion. In total, therefore, the rule (which again, was intended to constrain costs) has had the effect of driving up program costs by a combined $2.1 billion or 5.7 percent over this two-year period.

Current projections show that the fixed growth rate rule may continue to operate in this counter-intuitive manner in the years ahead, driving up yearly program costs rather than constraining them. To demonstrate this, we provide a sample projection of what equalization entitlements for all provinces could be in the absence of the GDP growth rate rule compared to a projection of what they will likely be as a result of the rule under two scenarios. (Expected total equalization payments through to 2021/22 are already a matter of public record. What is uncertain is how the total will be distributed (DOF, 2019).)

Annex 1 details the methods, sources, and assumptions underlying the projections. However, we note here that projections for future equalization payments necessarily involve many assumptions. The purpose of the projections is not to precisely estimate how future equalization payments to each province will evolve under the GDP growth rate rule or in its absence. Instead, our projections aim to show that there are plausible scenarios in which the GDP growth rate rule will continue to drive costs rather than constrain them, as well as what the additional costs could be.

Tables 1 to 3 have the same basic structure. Column 1 shows the results of the first step in the equalization calculation. Column 2 presents equalization after the Fiscal Capacity Cap (FCC) is applied. These are the amounts that would be paid to provinces in the absence of the GDP growth rate rule. Column 3 provides the amounts that we project will be paid after the GDP growth rate rule is applied. Column 4 is the difference between columns 2 and 1 and shows how the FCC changes equalization payments. Column 5 is the difference between columns 3 and 2 and reflects how the GDP growth rate rule increases payments.

Table 1: Equalization Entitlements, ($ millions), 2020/21

	(1)	(2)	(3)	(4)	(5)
	Initial Allocation	After Fiscal Capacity Cap	After GDP Growth Rate Rule	Change Due to Fiscal Capacity Cap	Change Due to GDP Growth Rate Rule
British Columbia	0	0	0	0	0
Alberta	0	0	0	0	0
Saskatchewan	385	0	0	-385	0
Manitoba	2,492	2,492	2,520	0	29
Ontario	0	0	0	0	0
Quebec	13,215	13,136	13,313	-79	178
New Brunswick	2,039	2,039	2,055	0	16
Nova Scotia	2,181	2,181	2,202	0	20
Prince Edward Island	452	452	455	0	3
Newfoundland & Labrador	168	0	0	-168	0
Canada	20,931	20,299	20,545	-632	246

Sources: Canada, Department of Finance (2019b); Provincial Budgets, 2019/20; Alberta, Ministry of Finance (2018 and 2019); Prince Edward Island, Ministry of Finance (2018 and 2019b); Statistics Canada (2019b, 2019c, and 2019d); calculations by authors.

The projection in table 1 shows that under our "baseline" projection scenario (described in Annex 1) there will be five equalization-receiving provinces in 2020/21. These are the three Maritime provinces (New Brunswick, Nova Scotia, and Prince Edward Island), Quebec, and Manitoba. Our projection suggests that, in the absence of the GDP growth rate rule, these provinces would be entitled to equalization payments totaling $20.3 billion in 2020/21, which is $246 million less than will in fact be paid out. In other words, if the GDP growth rate rule were not applied, the aggregate of all equalization payments would be $20.3 billion in that year instead of $20.5 billion. As such, the fixed growth rate rule will, under this scenario, increase program costs by 1.2 percent next year.

However, our projection suggests that under this baseline scenario in 2021/22, the GDP growth rate rule will instead act as a minor constraint on payments rather than a driver of them (see table 2). Specifically, our baseline projection suggests that the GDP growth rate rule will result in 2021/22 equalization payments being $75 million less than would be the case in the absence of the rule.

If it comes to pass, this additional $246 million in equalization payments in 2020/21 beyond the equalization entitlements that would have been paid had there been no GDP growth rate rule can be characterized as an overpayment, given that it is an additional payment beyond what would be necessary to bring the equalization-receiving provinces up to the fiscal ca-

Table 2: Equalization Entitlements ($ millions), 2021/22

	(1) Initial Allocation	(2) After Fiscal Capacity Cap	(3) After GDP Growth Rate Rule	(4) Change due to Fiscal Capacity Cap	(5) Change Due to GDP growth rate rule
British Columbia	0	0	0	0	0
Alberta	0	0	0	0	0
Saskatchewan	299	0	0	-299	0
Manitoba	2,647	2,647	2,638	0	-9
Ontario	0	0	0	0	0
Quebec	13,824	13,824	13,770	0	-54
New Brunswick	2,117	2,117	2,112	0	-5
Nova Scotia	2,273	2,273	2,267	0	-6
Prince Edward Island	486	486	485	0	-1
Newfoundland & Labrador	37	0	0	-37	0
Canada	21,682	21,346	21,271	-336	-75

Sources: See table 1.

pacity target determined by the "ten-province standard" and following the application of the Fiscal Capacity Cap. While there are legitimate policy objectives supporting the existence of a ceiling on the growth of equalization (ensuring cost certainty), there is no similarly legitimate objective that requires the existence of a floor that boosts the size of aggregate equalization payments in this way.[2]

This illustrates a fundamental deficiency with the current design of the equalization program—that payments must continue to grow no matter how much the disparity between the fiscal capacity of non-recipient and recipient provinces may shrink in the years ahead. In other words, even if non-recipient provinces experience another economic shock or recession and the disparity in the fiscal capacity of the provinces narrows further, equalization payments may continue to climb. Under this scenario, the GDP growth rate rule's new func-

[2] One conceivable justification for guaranteed overall growth for the equalization envelope could be to address a real or perceived fiscal imbalance between the federal and provincial governments. However, maintaining a minimum guaranteed growth rate for equalization would represent a singularly unfair strategy for achieving this objective since it excludes several provinces from the benefit. Either increasing per-capita transfers or freeing tax room and inviting the provinces to step into it would be a much more logical and fair option for addressing any perceived vertical fiscal imbalance. In short, equalization is explicitly designed to address horizontal fiscal imbalances and is a singularly poorly suited tool for addressing a perceived vertical fiscal imbalance. For a more detailed discussion of these and related issues and definitions of various terms such as those surrounding a "vertical" and "horizontal" fiscal imbalance, see Eisen, Emes and Lafleur (2017).

Table 3: Equalization Entitlements ($ millions), Alternative Scenario, 2021/22

	(1) Initial Allocation	(2) After Fiscal Capacity Cap	(3) After GDP Growth Rate Rule	(4) Change due to Fiscal Capacity Cap	(5) Change Due to GDP growth rate rule
British Columbia	0	0	0	0	0
Alberta	0	0	0	0	0
Saskatchewan	327	0	0	-327	0
Manitoba	2,547	2,547	2,599	0	52
Ontario	0	0	554	0	554
Quebec	13,206	12,983	13,308	-223	325
New Brunswick	2,060	2,060	2,090	0	30
Nova Scotia	2,202	2,202	2,239	0	37
Prince Edward Island	475	475	481	0	6
Newfoundland & Labrador	51	0	0	-51	0
Canada	20,867	20,267	21,271	-601	1,004

Sources: See table 1.

tion as a floor on equalization payments could come to be a larger driver of additional program costs in the years ahead, a benefit to receiving provinces but a burden both to taxpayers in struggling non-recipient provinces and, more generally, to everyone paying federal taxes.

To illustrate this reality, we provide a projection of an alternative economic scenario in which current non-recipient provinces do not perform as well economically as shown in our baseline scenario and fiscal capacity in the non-recipient provinces is therefore 2 percent lower in 2019/20 than in the base projection. In this scenario, the gaps between the fiscal capacity of rich and poor provinces in 2019/20 would be smaller than in the base projection but, as we have seen, total equalization would not be affected.

As a result, this alternative scenario shows that if there is economic weakness in the have-provinces, the GDP growth rate rule would again become a driver of cost growth by 2021/22 (see table 3) instead of a constraint, raising program costs by approximately $1.0 billion above what they would be in the absence of the rule. As such, the fixed growth rate rule in this scenario would increase program costs by 5.0 percent in 2021/22. In addition, Ontario would become a minor equalization recipient again under this scenario and receive $554 million.[3]

[3] Due to the fact that Ontario's fiscal capacity is currently very close to the cut-off line for the receipt of payments, the province may move in and out of have-not status in the years ahead depending on economic developments around the country. In any plausible scenario, however, per-capita pay-

Also importantly, this scenario shows that in the absence of the fixed growth rate rule equalization payments would in fact fall by $32 million in 2021/22 from the previous year's level in response to the shrinking fiscal capacity gap. This decrease in the size of the envelope under this scenario would be consistent with the program's logic of falling payments in response to a shrinking fiscal capacity gap between rich and poorer provinces—but it would not in fact occur due to the existence of the fixed growth rate rule.

This example illustrates that, under the current rules, equalization is not equipped to respond to a large, prolonged narrowing of the disparity in the fiscal capacity of richer and poorer provinces in the way that the program's logic suggests it should. This is a fundamentally problematic feature of the equalization program that has the potential to create perverse outcomes of "over-equalization" relative to entitlements as they would be calculated in the absence of the GDP growth rate rule.

An important point to keep in mind when comparing tables 2 and 3 is that they show that the GDP growth rate rule is much more likely to become a driver than a constraint on costs if provinces that derive no direct benefit from equalization (particularly Alberta and Saskatchewan) are struggling economically. It is easy to see how a program feature that arbitrarily enhances equalization payments to other provinces could heighten regional tensions and resentments surrounding the program under this scenario in which non-recipient provinces are struggling economically.

ments to Ontario would be far less than any of the other recipient provinces.

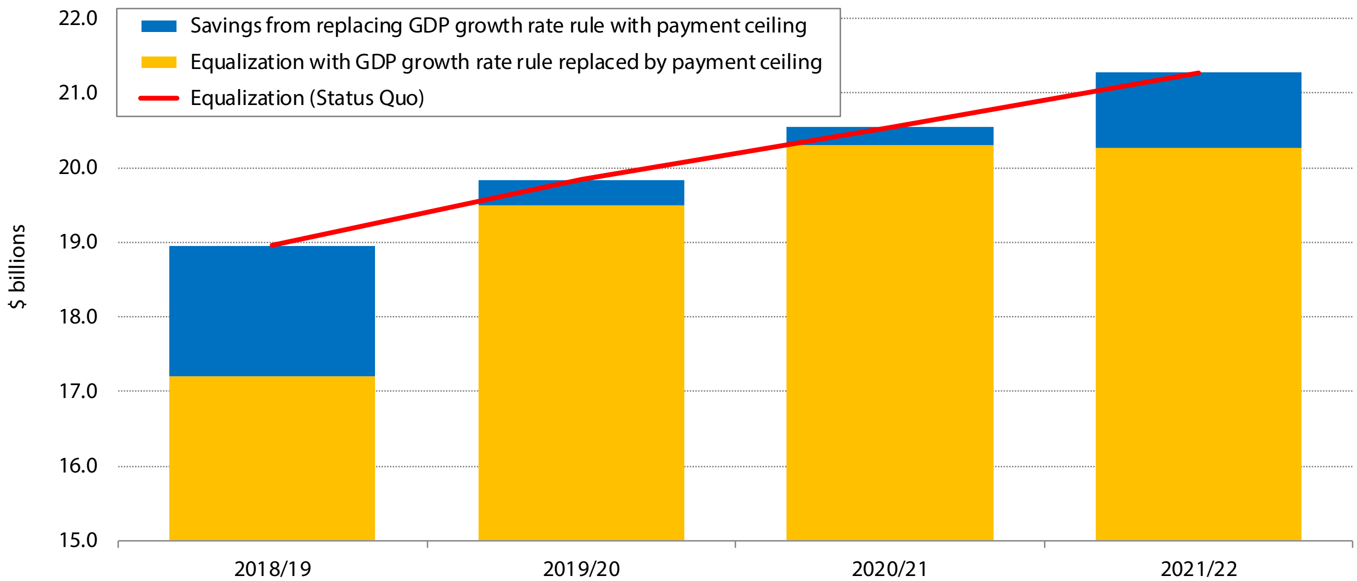
The fact that the GDP growth rate rule can act as a floor on equalization payments and actually drive costs rather than constraining them is clearly a design flaw, potentially creating real costs while achieving no defensible policy objective. Fortunately, it is a relatively easy flaw to fix, at least from the perspective of policy design, though perhaps not of politics. The next section describes one way this can be done.

Addressing the problem—replacing the fixed growth rate rule with a "ceiling" on payments

After the GDP growth rate rule was added to the equalization formula in 2009 to ensure that the program remained affordable for the federal government, one critic of the GDP growth rate rule argued that reducing the inclusion rate for natural-resource revenue could largely achieve similar objectives without contravening the underlying logic of the equalization program as directly as the growth ceiling strategy (Dahlby, 2014). Despite the advantages of this approach, it would leave the door open for more rapid program growth in the future. So long as the size of the envelope (as well as its distribution) is determined by a formula and is unconstrained by a ceiling, the possibility remains of significant growth in program costs over time depending on economic developments across the country. Dahlby's proposed reform would, therefore, not give the federal government the cost certainty that the GDP growth rate rule provides.

While affordability and fiscal sustainability are reasonable policy objectives that may justify a ceiling on payments, there is no similarly compelling justification for maintaining a floor on the rate of growth of the overall equalization envelope. Indeed, a floor that artificially inflates

Figure 3: Impact of GDP Growth Rate Rule on Equalization Payments, Alternative Scenario, 2018/19–2021/22



Sources: See Table 1.

payments beyond what they would be in the absence of a GDP growth rate rule has the potential to substantially increase program costs while exacerbating regional tensions surrounding the program.

There is at least one relatively straightforward reform that could maintain the cost-constraining advantages of the GDP growth rate rule while avoiding these undesirable outcomes. Quite simply, the equalization program can be changed such that the growth threshold pegged to growth in GDP acts only as an upper limit on equalization payments in a given year but not as a guarantee of a minimum level for the overall size of the equalization envelope. In other words, the GDP growth rate rule would be replaced with a flexible approach to determining the size of the equalization envelope, with upward growth alone constrained by a ceiling that grows with GDP over time.

This policy change would achieve the primary objective of the GDP growth rate rule—ensuring affordability for the federal government—while allowing equalization payments to shrink if the disparity in the fiscal capacity of richer and poorer provinces shrinks sufficiently, as the program's internal logic suggests that it should.[4]

Figure 3 clarifies how this reform could be implemented in practice. For this example, we use our second forecast scenario from above

[4] Further, we note that eliminating the fixed growth rate rule would be a pre-requisite for the success of any other reform effort aimed at reducing the scale of equalization payments overall. We discuss this reality in more detail in (Eisen, Emes, and Lafleur, 2017).

in which resource prices and economic performance in the non-recipient provinces are weak in 2021/22.

The red line represents the actual and projected equalization payments—the status quo—under current rules. The yellow portion of the bars shows what equalization payments would have been from 2018/19 to 2021/22 if the reform we have outlined were implemented and the fixed growth rate rule were replaced with a "ceiling" on payments– which is to say the growth rate rule would not be applied if the rule resulted in an increase in aggregate program costs. The blue portion of the bars shows the savings from replacing the current rule with a ceiling on payments.

Conclusion

The internal logic of the equalization program clearly suggests that if the disparity between the fiscal capacity of richer and poorer provinces shrinks, the need for equalization payments shrinks as well, and so the size of the equalization envelope should be allowed to decrease commensurately. A rule that the overall envelope must grow regardless of whether the gap between richer and poorer provinces is growing or shrinking is difficult to defend on the grounds of the program's fundamental principles or, indeed, any other legitimate policy objective.

Reforming this rule would allow equalization payments to shrink if reduced disparity in fiscal capacity among provinces suggests there is less need for payments to offset the gaps. Further, doing so could remove a source of regional resentment and tension surrounding the program by avoiding apparent "overpayments" relative to what payments would be in the absence of the rule. This factor could become particularly significant if future economic conditions in non-recipient provinces are difficult and the upward impact of the fixed growth rate rule increases even as non-recipient provinces struggle.

Equalization is a controversial program. Several long-standing issues and points of contention are difficult to solve. These include the appropriate treatment of non-renewable resource revenues and whether an accounting should be made for the different costs associated with delivering public services in various parts of the country. It is, therefore, especially important for the federal government to correct clear and resolvable design flaws that increase costs yet which do not appear to have a sound policy objective. Regardless of how other issues are resolved in the future, the fact that the GDP growth rate rule is currently acting as a driver of costs rather than a constraint on them is an example of a design flaw that can be eliminated through a straightforward reform such as we have here described.

Annex 1: Projection method

The projections in this report are based on detailed equalization workbooks provided by the federal Department of Finance. Specifically, we use the main formula files for fiscal capacity in 2015/16, 2016/17, and 2017/18, and the summary of equalization payment options for 2019/20 as a starting point (DOF, 2019b). From this base, we built estimated fiscal capacity formula files for 2018/19 and 2019/20 with existing data, augmented with data from provincial budgets and Statistics Canada, in order to generate estimated equalization payment option files for 2020/21 and 2021/22.

The estimated 2019/20 fiscal capacity file projects personal income taxes, business income taxes, consumption taxes, natural resources, and property taxes, and miscellaneous tax base yields by province. Projections by revenue source are built as described below.

Personal income taxes

To produce 2018/19 and 2019/20 estimates of the yield of the tax base at the national average tax rate, the 2017/18 provincial yield of tax bases at the national average tax rate as presented in the files from the Department of Finance (DOF) is grown by annual growth rates in provincial personal income tax, health premiums, and payroll tax revenues in the provincial budgets.

Business income taxes

To produce 2018/19 and 2019/20 estimates of the yield of the tax base at the national average tax rate, the 2017/18 provincial yield of tax bases at the national average tax rate as presented in the base files from DOF is grown by annual growth rates in provincial corporate income tax and corporate capital tax revenue in the provincial budgets.

Consumption taxes

To produce 2018/19 and 2019/20 estimates of the yield of the tax base at the national average tax rate, the 2017/18 consumption tax base from DOF is grown by rates calculated from the national sum of sales taxes; gasoline and motive fuel taxes; tobacco, liquor gallonage and amusement taxes; other excise taxes; motor vehicle licenses; and, licenses, permits, and fees from Statistics Canada Table 36-10-0484-01. National total estimates are then distributed by the 2017/18 provincial shares of the consumption tax base and the national tax rate from 2017/18. As with personal income tax ratios, these ratios do not change much from year to year. The average difference over all provinces between the three-year average (2015/16–2017/18) and 2017/18 was −0.9 percent.

Natural resources

As in the equalization formula, estimates of provincial natural resource revenue are based on actual revenues. Specifically, 2017/18 resource revenues by province from DOF are grown by annual rates produced from provincial budget revenue estimates.

Property taxes and miscellaneous

To produce 2018/19 and 2019/20 estimates of the yield of the tax base at the national average tax rate, 2017/18 national revenues to be equalized from DOF are grown by rates calculated from real property tax revenue of local general governments from Statistics Canada Table 36-10-0477-01. These national values are then distributed by the average of the DOF's distribution of the property tax base for 2015/16–2017/18. We chose an average of the rates here (rather than the most recent year's values as used elsewhere) because there is more variation in the distributive series. That said, the largest difference in any province between the average ratios we use and the ratios for individual years is 6.2 percent.

Equalization projections by province

To generate equalization projections for 2020/21 and 2021/22 we start with the 2019/20 summary of equalization payment options file from DOF, replace the existing inputs from the fiscal capacity files with inputs from the new fiscal capacity files described above, and make other adjustments as necessary.

For 2021/22, we use 2017/18 fiscal capacity from DOF (25 percent) plus the estimated fiscal capacity for 2018/19 (25 percent) and 2019/20 (50 percent) to produce fiscal capacity yields.

The population from 2017 from DOF is grown using annual provincial growth rates from Statistics Canada Table 17-10-0057-01 (M1 scenario).

Offshore Accord offset payments are updated using the formula built into the DOF files with revised resource estimates as described above.

Annex 2: Alternative projection scenario

The hypothetical scenario where non-recipient provinces end up with lower fiscal capacity is produced with relatively straightforward changes to non-resource fiscal capacity yields. Changes are focused solely on non-recipient provinces. Estimated fiscal capacities in Newfoundland & Labrador, Ontario, Saskatchewan, Alberta, and British Columbia in 2019/20 are reduced by 2 percent from the estimate described in Annex 1.

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