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Follow the Cash:

Changing Equalization to Promote Sound Budgeting and Prosperity

Jack M. Mintz and
Finn Poschmann

The Backgrounder in Brief

The provincial fiscal equalization program is in the midst of change. Equalizing provincial fiscal capacity is the program's goal — to improve its targeting, the equalization formula should account for provincial cash flow, which will improve the growth and fiscal incentives that provincial governments confront.

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Canada's federal government has contributed financial support to the provinces since Confederation. The current provincial fiscal equalization program has been with us, in something like its present form, for 47 years, and Canada's Constitution, patriated 22 years ago, eternally commits the country to the principle of making the provinces roughly equal in available revenue and spending capacity.

It is time to change the way that commitment is fulfilled. The equalization program has been amended frequently over the years, often on an ad-hoc basis to deal with issues related to the natural resource revenues received by provinces. A more principled approach is needed.

The federal government has put the equalization program's usual renewal cycle on hold, pending the report of a yet-to-be-designated review panel. That panel will be charged with recommending how best to allocate payments among the provinces; that involves examining how provinces' fiscal capacity is measured, which is the topic of this *Backgrounder*.

Over the years, experts have devoted much criticism as well as commendation to the equalization program, which provides a large federal cash transfer to provinces that have a revenue-raising capacity which is below the national standard. Unconditional transfers help poorer provinces pay for public services of comparable quality to their better-off peers — without having to raise their relative tax levels. Critics charge that the program distorts provincial priorities because when a province increases its per capita tax base Ottawa lowers its equalization payments. This *Backgrounder* sets out a better way to measure provincial fiscal capacity — the cash-flow approach. This system tends to neutralize the equalization program's impact on provincial fiscal and development policies.

The Newfoundland and Nova Scotia governments are equalization's strongest critics. They point out that the provinces lose over 80 cents of an equalization dollar for each dollar of royalty and corporate tax revenue earned from natural resource development.[1] They claim that equalization's current design actually undercuts provincial investment in development activities. To reduce the incentive effects of equalization on the ability and willingness of provinces to develop their natural resources, especially in the Atlantic region, some observers (including premiers) have proposed removing natural resources from the equalization formula (Boessenkool 1998), or at least substantially reducing the claw-back of equalization entitlements that can result from receiving resource revenue.

However, removing natural resource revenue from the equalization calculation is not necessarily consistent with the goal of ensuring that provinces have sufficient fiscal capacity to provide reasonable levels of public goods and services.

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1 Currently, each dollar of natural resource revenue for Atlantic offshore development reduces equalization payments by 70 cents. However, since natural resource companies also pay corporate taxes, equalization payments are reduced by another 14 cents on the dollar (approximately).

Table 1: *Provincial Government Indebtedness*

Fiscal year ending 31 March	2000	2001	2002	2003
	Provincial net debt per capita			
	dollars			
Newfoundland	15,065	15,888	16,670	17,465
Prince Edward Island	7,268	7,603	7,453	7,898
Nova Scotia	9,753	10,876	11,857	12,084
New Brunswick	7,355	8,524	8,201	7,997
Quebec	12,403	12,260	11,920	12,328
Ontario	9,453	9,209	8,685	8,572
Manitoba	7,979	7,890	8,060	8,631
Saskatchewan	9,773	9,947	9,138	9,671
Alberta	132	-835	-3,270	-2,932
British Columbia	3,768	3,994	3,791	4,026
Equalization receiving provinces	11,283	11,403	11,229	11,630
Non-receiving provinces	6,725	6,472	5,715	5,749
	Provincial net debt as a share of gross domestic product			
	percent of GDP			
Newfoundland	60.5	61.3	54.9	52.8
Prince Edward Island	30.9	29.4	28.9	29.6
Nova Scotia	41.0	42.4	41.6	41.3
New Brunswick	31.7	29.6	28.3	26.5
Quebec	40.0	37.9	37.4	37.5
Ontario	24.4	22.8	21.6	20.8
Manitoba	26.5	26.3	26.9	26.8
Saskatchewan	29.8	27.2	27.8	26.9
Alberta	-1.7	-6.6	-6.1	-6.2
British Columbia	12.3	11.7	12.2	14.1
Equalization receiving provinces	38.1	36.5	36.0	35.8
Non-receiving provinces	16.9	14.8	14.5	13.9

Source: Statistics Canada, CANSIM Division (Financial Management System); authors' calculations.

As an extreme example, the removal could readily result in a resource-rich province receiving an equalization payment even though it had far greater fiscal capacity to fund programs than provinces without natural resource revenue.

Still, the eastern critics do have a valid complaint. The equalization program undermines the incentive to develop provincial economies because additional corporate, personal and sales taxes produced by economic development reduce equalization payments in the same way as does resource revenue. In fact, the system penalizes provinces that lower taxes to encourage private sector investment by reducing equalization. As a result, provinces have an incentive to set current and future taxes higher than they otherwise would (Smart 1998). Selling off government-owned businesses can be a problem, too; departmental remittances to the province, which may include proceeds from privatizations, weigh in the equalization calculation, so the program has a distortionary effect on government activities in general.

The equalization program creates other fiscal distortions, as well. For example, if a province uses debt to finance current spending — the equivalent of time-shifted taxation — the borrowing has no impact on current equalization receipts. This anomaly affects provinces' spending and borrowing choices; they certainly spend more than they otherwise would.

We argue that provincial governments seek political rewards by delivering services (spending money) beyond what is supported by the current taxes they levy. This borrowing requires higher future taxes, and because taxes are themselves distortionary, their higher levels will suppress current and future economic activity, shrinking the revenue base. This shrunken base will be offset to a significant degree by the workings of the current equalization program. The implication is that equalization tends to encourage both higher provincial debt and higher taxes, now and in future.

Smart (1998) provided evidence to support the higher-taxes thesis. Furthermore, a remarkable new study (Martell and Smith 2004, p 79) concludes that among U.S. states, "debt issuance is positively related to both matching and non-matching grants," because the federal transfers free up states' budgetary resources to service debt. We make the observation that per capita debt among the equalization-receiving provinces, measured as provincial direct liabilities less financial assets, has averaged about double the level of other provinces over the past 15 years. The poorer provinces' average debt burden is 36 percent of GDP, while the weighted average among non-equalization-receiving provinces is 14 percent of GDP (Table 1).

In any case, a better equalization approach would cause less distortion of provincial fiscal and development policies, while remaining faithful to the principle of addressing fiscal capacity. We recommend an extension of the current tax-base equalization mechanism that would adjust benefits to reflect provinces' cash-flow positions to take account of financial transactions that are not now included in the calculation. Under cash-flow equalization, the revenue used to fund investments in financial assets would not be equalized.[2] Similarly, revenue used to retire debt would not be equalized. If, however, a province borrowed money or cashed in financial assets, those amounts would be equalized.

Using this approach, natural resource revenue, which resembles the proceeds from selling an asset, would not be equalized as long as the royalties (or any other revenue from any source) were offset by new investment in assets or used to retire debt. No additional adjustment in the equalization formula is required to deal with the resource issue. Cash-flow equalization is clearly a more productive way of dealing with the problems raised by provinces receiving natural resource revenue — without sacrificing the goals of the equalization system.

The cash-flow approach encourages sounder fiscal policy by reducing the equalization penalty for provinces that pay down debt. Under cash-flow

2 The idea of using a cash-flow approach is taken from the taxation literature (see, for example, Bradford 1984) in which governments would tax cash flow (all receipts, including net borrowing, net of costs, including repayment of net debt) rather than annual income. The parallel to equalizing fiscal capacity is clear. Governments currently equalize all revenue, recurrent and non-recurrent, and ignore financial transactions.

Box 1: *How Governments Calculate Current Equalization Payments*

Under the representative-tax-system that determines current equalization entitlements, Ottawa provides a province with an equalization payment based on a calculation that determines a value for each potential revenue source and adds up the amounts to arrive at an aggregate. If the per capita base for a revenue source in a province is smaller than the representative standard, the province's revenue is deficient, and vice versa. A province receives an equalization payment if its aggregate amount reflects an overall deficiency — that is, if the sum of its individual components, with deficiencies, is greater in value than those components that are in excess of the standard.

A province's equalization entitlement for each revenue source equals:
the national tax rate
times
the representative per capita standard base
minus
the provincial per capita base
times
the province's population.

The national tax rate is the revenue received divided by the tax base for all provinces. The representative per capita standard is calculated by taking the specific tax divided by the provincial populations for five provinces (Quebec, Ontario, Manitoba, Saskatchewan and British Columbia) and the provincial per capita base is calculated as the provincial tax base divided by the individual population.

Thirty-three tax bases are equalized, including personal income taxes, business income and capital taxes, sales and excise taxes, payroll taxes, property taxes, vehicle licenses, health insurance premiums, resource revenues, sales of goods and services, water power rentals, lottery and game revenues and insurance premium revenues. Equalization does not apply to several revenue-related sources including refunds of tax credits, income from investments and transfers received from other levels of government (for example, conditional grant programs).

equalization, provinces that use the increased revenue from a growing economy later rather than sooner by building net financial assets, rather than spending on current consumption, are rewarded. Cash-flow equalization will reward politicians who avoid leaving debts to future generations.

We accept the constitutional principle that equalization should promote roughly comparable fiscal capacities among provinces. We do not contemplate radical shifts in the mechanism of the equalization calculation, such as the macro-approach of equalizing aggregate tax-to-GDP ratios (Boothe and Hermanutz 1999, for example).[3] In the next sections of the Backgrounder, we link the deficiencies of current equalization and the improvements that the cash-flow method would bring, then describe the possible operation of cash-flow equalization and its impact on provincial revenues and federal spending. We follow that with a discussion of a few technical issues, including transition.

3 We do note that given a choice that was limited to single macro-model mechanisms, a cash flow target would be well supported by public finance principles, while presenting some operational challenges.

Equalization's Current Inadequacies

The intent of the equalization program is to ensure that different provinces can provide comparable public services at similar tax levels. However, the methodology that determines equalization payments does not link tax levels with the spending commitments of governments.

The current equalization program measures fiscal capacity by taking 33 general revenue categories and comparing their per capita revenue base to a representative average (Box 1). All of the major revenue sources are equalized — personal income taxes, business income and capital taxes, sales and excise taxes, payroll taxes, property taxes and assorted non-tax revenues, including remittances of government business enterprises and natural resource revenues.

However, to the extent that equalization focuses on fiscal capacity as an indicator of a province's ability to fund services, the methodology is inadequate. Specifically, it implies that revenue capacity represents spending capacity; it does not. Spending capacity is equal to revenue received plus net investment income — financial income net of interest expense — plus net borrowings, or debt issued less assets purchased.

Ignoring financial decisions in the complex equalization formula creates some unwelcome distortions in provincial decision-making. Examples include:

- Royalties collected from the sale of provincially owned natural resources or financial assets are subject to equalization even though the money may be used to buy other such assets or reduce debt and is unavailable for financing public services.
- Revenue that is used to pay down debt rather than for spending on goods and services is still equalized, even though the province is to reduce burdens faced by future taxpayers.
- Provinces that receive capital gains from the sale of financial assets are able to keep their current equalization payments, while those that receive unexpected windfalls in capital gains tax revenue lose equalization payments.

The equalization system penalizes provinces that try to reduce their debt burdens (rather than spend money) or develop their economies by selling off natural resources or business enterprises.

In principle, the exclusion of financial assets and liability transactions has no impact on equalization payments over time because the time value of income received from an asset is equal to its current value.[4] Stated another way, the present value of the stream of debt service payments is equal to the government's bond issue price. But governments are not in power forever, so it matters to politicians whether it is current or future tax burdens that are subject to equalization. Under the status quo, a government wishing to be re-elected would tend to prefer to finance spending through debt rather than building the tax base,

4 If fiscal capacity, when adjusted for cash flow, were more disparate among provinces than is the current capacity measure, the total cost of the program would be higher.

because a government is able to maintain equalization payments with debt finance as opposed to base-building measures.

Cash-Flow Equalization

Cash-flow equalization is based on the principle that all cash flows received by a province — financial inflows minus outflows — would be subject to equalization. Inflows include tax and non-tax-revenue receipts, such as natural resource revenue, as well as the proceeds of borrowing plus financial income. Outflows would include financial asset purchases and the retirement of debt (the change in net financial assets) and public debt charges. Compared to the current approach, which equalizes revenue sources, cash flow equalization adds the financial transactions associated with changes in assets and liabilities.

If financial transactions were included in determining equalization, provinces would face greater incentives to invest revenue or to retire debt. Provinces receiving equalization would be able to maintain their program spending even if they chose to retire debt, because equalization entitlements would be increased as a partial offset. Similarly, a province selling Crown assets, including natural resources, would not have the revenue equalized to the extent that it was offset by investment in assets, including investment funds. On the other hand, provinces that borrow to fund current programs would face an equalization penalty because those transactions would raise the cash-flow base and tend to produce lower equalization entitlements.

The cash flow approach for equalization is superior to the existing method because it recognizes that some revenue is non-recurrent, such as non-renewable resource royalties. The royalty payment received by the province is capital that can only be used to fund one-time public expenditures. In principle, provinces should be investing non-renewable natural resource revenue in a fund that would yield income on an annual basis for financing continuing public expenditures.[5] Cash flow equalization would provide better incentives to provinces to fund their public services to meet the needs of both current and future generations.

The advantages of cash flow equalization over the current system are two-fold. For one thing, it would leave provincial fiscal capacities unaffected if incremental financial inflows were not spent on current public programs; recall that under this mechanism rising financial assets count against fiscal capacity. For another, selling assets to finance spending clearly would represent fiscal capacity, and would be equalized. This provides greater incentives to smooth spending over time, especially for those provinces with non-renewable resource revenue.

Any new approach would have different revenue effects on each province. We assess this issue in the next section.

5 Hartwick (1977) advanced the proposal that a government should invest non-renewable natural resource revenues in an investment fund, rather than spending it on current public services.

Table 2: *Cash-flow Equalization — Impact on Current Equalization Entitlements*

	Year- over-year change in provincial direct liabilities less change in financial assets less debt charges			
Fiscal year ending 31 March	**2000**	**2001**	**2002**	**2003**
	millions of dollars			
Newfoundland	-354	-304	-233	-159
Prince Edward Island	-79	-132	-63	-47
Nova Scotia	-103	-253	-863	-533
New Brunswick	-62	-1,152	-1,061	-997
Quebec	-9,200	-10,647	-5,132	-5,089
Ontario	-11,176	-14,220	-9,090	-9,938
Manitoba	-1,588	-1,514	-980	-1,071
Saskatchewan	-1,054	-1,907	-428	-661
Alberta	-4,404	-8,982	-333	-2,344
British Columbia	-1,920	-3,680	-1,669	977

	Hypothetical impact on equalization entitlements			
Fiscal year ending 31 March	**2000**	**2001**	**2002**	**2003**
	millions of dollars			
Newfoundland	-185	-366	-121	-159
Prince Edward Island	-58	-40	-30	-37
Nova Scotia	-832	-931	231	-39
New Brunswick	-689	201	552	538
Quebec	1,883	1,322	116	534
Ontario	-280	-570	1,033	2,545
Manitoba	451	60	199	364
Saskatchewan	33	628	-251	51
Alberta	1,461	5,178	-1,739	440
British Columbia	-2,087	-1,439	-1,096	-3,494
Total (recipients only)	478	872	511	1,252

	Net (hypothetical) equalization entitlements			
Fiscal year ending 31 March	**2000**	**2001**	**2002**	**2003**
	millions of dollars			
Newfoundland	984	746	935	703
Prince Edward Island	197	229	226	199
Nova Scotia	458	473	1,547	1,072
New Brunswick	494	1,461	1,742	1,649
Quebec	7,163	6,702	4,806	4,519
Ontario	0	0	0	0
Manitoba	1,670	1,374	1,546	1,647
Saskatchewan	412	836	0	196
Alberta	0	0	0	0
British Columbia	0	0	0	0
Total (recipients only)	11,378	11,820	10,801	9,985

Source: Statistics Canada, CANSIM Division (Financial Management System); Department of Finance, Federal Provincial Relations Division; authors' calculations.

The Mechanics of Cash Flow

The mechanism we propose builds on the existing equalization technique: New equalization entitlements would equal entitlements under the present system, adjusted for financial flows.

We model cash flow as a source of fiscal capacity as the per capita year-over-year change in financial liabilities (as at March 31), in addition to interest income received, less year-over-year change in financial assets, less interest paid in the year. Financial transactions that would count toward measuring cash flow would be limited to those affecting the balances recorded among financial assets or direct liabilities according to the Financial Management System as reported by Statistics Canada.[6] In converting cash flow to equalization entitlements, for the sake of program continuity, the five-province standard would apply to the cash flow calculation, evaluated on a per capita basis. In other parts of the equalization calculation, a province's entitlement is the difference between the five-province-standard revenues (for that base) and what the province would take in if it taxed its own base at the national average rate. However, there is no such comparator for cash flow — the concept of a national average tax rate to apply to it is nonexistent. What we can do instead is assess entitlements as the difference between a province's per capita financial flow and that of the five-province standard, multiplied by provincial population.[7]

The potential impact on federal and provincial finances can be assessed by considering what would have happened if the cash flow mechanism had been in effect in recent years (see Table 2, where panels show provincial financial transactions and their hypothetical effect on recent equalization entitlements). In our retrospective assessment we include in cash flow the impact of changes in past financial assets, because they are arguably indicative of how provinces would behave in future — though how provinces will, in fact, act is obviously uncertain.

An analysis of recent years' performance shows that cash flow equalization would not jar the distribution of program payments sharply. That is critical, because federal-provincial transfer formulas reflect a history of negotiation among interested political parties and their voters; a formula that produced radically different results would not have evolved in the past and would not be sustainable in future. Thus, for example, note that there would have been no persistent change in the identity of provinces that did, or did not, receive significant equalization payments. One recent gainer would be New Brunswick because cash-flow equalization would have rewarded the province for reducing its net indebtedness.

In recent years, the current equalization formula, augmented by our cash-flow adjustment, would have generated total provincial equalization transfers that were

6 This would limit politically driven labelling of spending programs as investments, at least insofar as equalization is concerned.

7 The cash-flow equalization method could encourage a modest amount of strategic behaviour among provinces contemplating future balance sheet choices. Our proposed method would directly reward provinces that reduced debt — if they did so by more than the average of the five provinces in the equalization standard, evaluated on a per capita basis.

higher than actual payments. Over a longer horizon, the differences range from very small (or negative) to fairly large in the early part of the 1990s. In the last four years, however, the average increase in total benefits would have been less than $800 million, which is below recently proposed increases in equalization spending. Yet under cash-flow equalization, the distribution of payments would have reflected a fairer estimate of provincial fiscal capacities to support desired services, and those payments would have generated better provincial fiscal and development incentives — the goal of our proposal.

A Critical Issue — Transition

If Canada were to convert from the current approach to cash-flow equalization, one thorny issue policymakers would face is the transition associated with the start-up of the new system. How should old financial assets, debts and associated investment income and interest expenses be treated?

One of two approaches could be used to implement cash-flow equalization: doing nothing or adjusting for past choices by distinguishing post-transition debt from old debt, much as new oil and old oil are distinguished in other parts of the equalization mechanism.

Doing nothing would allow provinces that repay old public debt to reduce reported cash flow just as when they invest in new assets — potentially increasing their equalization entitlement. All investment income, including revenue from existing assets or their sale, would be included in the cash flow base. This approach has the virtue of simplicity. However, it would reward provinces that did little in the past to keep debt levels low, as well as impose a penalty on those with investment income and plans to liquidate old assets. If Ottawa and the provinces agreed to allow provincial governments to count repayment of past debt against current fiscal capacity, they could conceivably shift part of the burden of their past borrowing to the federal taxpayer.

Alternatively, the new entitlement calculation could distinguish old from new debt, assets and their associated interest expenses and investment income streams. The repayment of debt and interest expenses on old debt would not reduce the cash flow base; investment income and sale of old assets (held before implementation) would not be included in the tax base. Unlike the do-nothing approach, this would not hold the potential of a windfall gain for high-net-debt provinces. Deciding which transactions should enter the equalization calculation would be simple enough, if administratively burdensome. Whether it would be effective is a different matter; provinces could use current revenue to invest in new assets, reducing reported cash flow and increasing their equalization payments even if buying back their own old debt was not equalized. Yet a new purchase of a financial asset would reduce net debt just as much as retiring old debt, undermining the presumed aim of not adjusting for such debt.

Neither approach would be perfect, but on the basis of simplicity and effectiveness the case for doing nothing seems stronger. And because of the fungibility of revenue and spending streams, the case for doing nothing becomes stronger yet.

Conclusion

The current provincial fiscal equalization program has been effective in delivering federal cash to provinces where spending capacity was below a national standard — as measured by the current formula.

We believe that the present system is an imperfect measure of fiscal capacity, and that it creates incentives to make poor choices about tax rates, spending and debt. A cash flow standard, on the other hand, would be a fairer measure of spending capacity, and one which displays better time consistency both in public finance terms and when political imperatives come into play. Not only that, cash-flow equalization could be introduced in a relatively simple manner that did not depart in direction from the politically established flow of benefits under the equalization program. While it would at times change the magnitude of some provinces' benefits, it would impart better fiscal management incentives and more robust growth for everyone.

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