Calm counsel:
Fiscal federalism and provincial credit risk

BY KYLE HANNIMAN
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Executive Summary

Provincial finances in Canada have deteriorated sharply since 2009. Like a number of subnational governments, the provinces have turned to credit markets to fund their fiscal shortfalls. But unlike most subnational governments, the Canadian provinces borrow without national restrictions. They also borrow to finance operating deficits and a range of politically sensitive programs. Predictably, the scale of provincial borrowing has been immense. The provinces’ debt-to-GDP ratios dwarf those of American states. No state, not even the much-maligned California, rivals the absolute or per capita liabilities of Ontario or Quebec.

Remarkably, this situation has not impeded the provinces’ ability to borrow. Interest rates are low and the major rating agencies are confident the provinces will continue to repay their debts. But many warn that these conditions will not last. This Mowat Note assesses the risks of a provincial debt crisis and explores proposals to address them. It pays particular attention to the risks posed by Canada’s system of federal-provincial transfers.

The report argues that the chance of a near-term debt crisis — in the form of significantly higher interest rates — is minimal. Benchmark rates are likely to remain low for some time and risk premiums on provincial bonds are constrained by Canada’s triple-A credit rating; the provinces’ extensive powers of taxation; and the belief, widely held among investors, that provincial debt is federally guaranteed.

But long-term risks are mounting. Provincial debts are large and growing and the provinces are far more vulnerable to interest-rate shocks than the federal government. This should worry residents of heavily indebted provinces, but it should also worry Canadians at large. A crisis in one province can easily cause problems in others.

The situation may get worse. Provinces are struggling with ageing populations, rising health care costs, weak revenue growth and a number of other fiscal strains. What is more, Canada’s system of federal transfers is failing to keep pace with the provinces’ shifting fiscal positions. This has resulted in a series of perverse redistributive outcomes, the most notable of which is a net transfer of tax dollars from residents of Ontario, a province with below-average fiscal capacity. Not only does this make it harder for Ontario to balance its budget. It also fuels tensions over Canada’s transfer arrangements. It is possible these conflicts will result in a more equitable transfer system. However, it is also possible that they will result in deals that resemble bailouts. This would undermine fiscal discipline and increase provincial debts further.

An intuitive solution is to allocate transfers according to clear and principled rules. This would limit bailouts and perverse redistribution by constraining intergovernmental bargaining and federal discretion. Unfortunately, this is easier said than done. No system of redistributive transfers can avoid renegotiation for long and Canada’s requires reform. What is needed is a mechanism to reconcile principled transfers with the capacity to adapt to changing circumstances.

This paper proposes such a mechanism: a neutral council capable of monitoring and assessing Canada’s transfer arrangements. The proposed council would lack formal decision-making
authority. Thus, the potential for perverse redistribution and bailouts would remain. But its assessments would potentially discipline these tendencies by alerting voters and journalists to unprincipled transfers and bargaining positions.

A council could support provincial finances in several ways. At a minimum, it would assess whether transfers are fair and consistent with principles of fiscal discipline. But it could also assess their risk-sharing and stabilization properties.

Few, if any, provinces will welcome a neutral body’s oversight. But the provinces’ fiscal positions are highly volatile and the transfer system is failing to keep up. This makes all provinces vulnerable to perverse redistributive outcomes. It also makes the federation vulnerable to ad hoc bargaining over transfer arrangements. A neutral council would limit these risks.

An independent council is no panacea. It would not completely depoliticize reform. Nor would it address every source of provincial deficits. But its utility grows as provincial debt and tensions over transfers mount.
Introduction

Canada’s public sector is often hailed as a model of fiscal discipline. But a cursory look at its debts reveals a disturbing fact: Large shares are owed by the provinces, a sector far more vulnerable to the whims of bond markets than the federal government.

The growth and risks of provincial debt have not gone unnoticed. Journalists and the federal finance minister warn of credit rating downgrades and interest rate hikes; the Fraser Institute compares Ontario to Greece; and the MacDonald-Laurier Institute forecasts a greater than 50 per cent chance of default for eight provinces over the next 30 years.

By all indications, bond markets reject these dismal outlooks. Interest rates on provincial bonds are low and rating agencies — despite media claims to the contrary — forecast virtually zero probability of provincial default.

Observers warn that these conditions will not last. Interest rates will rise and force provinces to undertake drastic austerity measures.

Perhaps. But the Bank of Canada has signalled that benchmark rates will remain low for some time. And, as this paper shows, investors are comfortable lending to provinces, because of Canada’s triple-A credit rating; the provinces’ capacity — almost unparalleled among subnational governments — to tax; and the implicit federal guarantee on provincial debt. Thus, the risk of a short-term crisis appears low.

But longer term risks are large and growing. As a percentage of GDP, the provinces are the most indebted subnational sector in the Organization of Economic Co-operation and Development (OECD). This should worry residents of heavily indebted provinces, but it should also worry Canadians at large. Subnational debt crises, particularly ones originating in jurisdictions of

1 Sancak et al. 2011.
2 McKenna 2014.
3 Di Matteo 2013.
4 Joffe 2012.
Ontario's size, are rarely self-contained. They can quickly spread to other governments and inflict a range of macroeconomic costs.

The situation may get worse. Provinces are struggling with ageing populations, rising health care costs, weak revenue growth and a number of other fiscal strains. What is more, Canada's system of federal transfers is failing to keep pace with the provinces' shifting fiscal positions. This has resulted in a series of perverse redistributive outcomes, the most notable of which is a net transfer of tax dollars from residents of Ontario, a province with below-average fiscal capacity. This makes it harder for Ontario to balance its budget. More importantly, it fuels tensions over Canada's transfer arrangements. It is possible these conflicts will result in a more equitable transfer system. However, it is also possible that they will result in deals that look and feel like bailouts. This would undermine fiscal discipline and increase provincial debts further.

Fiscal federal theory suggests a simple solution: Limit bailouts by constraining federal discretion and distributing transfers according to clear, principled and depoliticized rules. This is easier said than done. No system of redistributive transfers can avoid renegotiation forever. And defective systems require change. What is needed is a means of reconciling the goal of principled transfers with occasional or even regular need for reform.

This report proposes a partial solution: an independent body capable of monitoring and assessing Canada's transfer arrangements. Such a body would not eliminate intergovernmental bargaining or federal discretion. Thus, the potential for inequitable transfers and bailouts would remain. But neutral assessments of net redistribution and other aspects of the transfer system would discipline these tendencies by publicizing unprincipled transfers and bargaining positions.

A council could support provincial budgets in several ways. At a minimum, it would evaluate whether transfers are fair and consistent with principles of fiscal discipline. But it could also evaluate whether transfers provide provinces with adequate countercyclical support and insurance against adverse and asymmetric revenue shocks.
Why worry about subnational debt?

Government debt is not inherently bad. It is an equitable and efficient means of financing capital investments. It also helps governments to smooth consumption across the business cycle. However, debt needs to be serviced and, at a certain point, interest and principal payments seriously impede a government’s ability to deliver services and invest in infrastructure. It also exposes borrowers to financial market risks. By now, these risks are well known. They were on full display during the Eurozone debt crisis, when exorbitant risk premiums on government bonds pushed several governments to the brink of default.

Less appreciated is that these risks are higher — significantly higher — at the subnational level. The recent struggles of Spanish regions provide a case in point. The Spanish government struggled yet continued to borrow at a significant premium from 2010 to 2012, while all regions, regardless of their fiscal outlooks, were locked out of conventional bond markets for significant stretches. A similar asymmetry was evident in the mid-1990s in Canada, where Ottawa lost its triple-A rating, but two provinces, Newfoundland and Saskatchewan, were believed to have flirted with default.

These risks seem remote in today’s slow-growth environment. Interest rates are low and are likely to remain low for some time. This reduces the risks of borrowing considerably. It also strengthens the case for deficit spending: With interest rates approaching zero, the conventional means of reviving growth – lowering interest rates – is disappearing. Fiscal stimulus may, therefore, be the only answer.

This report neither endorses nor rejects this Keynesian logic. It merely notes that countercyclical measures are riskier at the subnational level, where risk premiums are more sensitive to deficits and financial market shocks. This is not a definitive case against subnational deficit spending. But it does suggest that national governments are better positioned to undertake it (more on this below).

6 Borrowing ensures that long-term capital projects, whose benefits span multiple generations, are not paid solely by today’s taxpayer, but by future users as well.
8 This assumes slow growth is a consequence of insufficient demand. If it is a supply-side problem (e.g., lack of labour force and productivity growth), then governments need to live within their means and austerity, not deficit spending, is the answer. See Krugman (2014) for a discussion of these differences.
Why are subnational governments so vulnerable? Compared to sovereign bonds, subnational bonds are costlier to trade. Investors demand a liquidity premium to hold them as a result. This premium increases during financial crises, when investors’ liquidity needs rise. Subnational bonds are also riskier. Lenders generally assume that central banks guarantee national, but not necessarily subnational, debt.9 Local governments pay higher risk premiums or credit spreads as a result and these spreads, like liquidity premiums, increase when financial conditions deteriorate (see Box 1.)

Provincial governments will want, for these reasons, to limit their debt and financial market exposures. However, they also have a stake in one another’s solvency. Recent experience shows that crises in one jurisdiction can quickly spread to other members of the currency union. And cross-national and case-study research links local debts to a number of macroeconomic ills, including inflation,10 macroeconomic instability,11 higher central government debts12 and higher borrowing costs for other governments.13 These spillovers are a major motivation for limiting subnational borrowing.

Box 1: Flights to liquidity and safety: Implications for subnational borrowers

Investors rebalance their portfolios towards less risky and more liquid assets during periods of financial distress.1 Subnational bonds are inherently riskier than sovereign debt. They are also less liquid. It follows that their relative value declines when market conditions deteriorate. These phenomena, known as “flight to quality” and “flight to liquidity,” cause intergovernmental spreads (or the relative borrowing costs of national and subnational governments) to diverge.2 If the crisis is severe enough, subnational governments may lose access to credit. This happened to several subunits, including Canadian provinces and municipalities, for a brief period after the Lehman Brothers default.3

9 The Bank of Canada is not, technically speaking, required to guarantee federal debt. But markets assume (probably correctly) that it is unlikely to let Ottawa default.
10 Rodden and Wibbels 2002.
13 Jenker and Zhongjin 2014.

1 Beber et al. 2009.
2 Lemmen 1999.
3 Hanniman forthcoming(a).
Big borrowers:
Provincial debts in comparative and historical perspective

Canadian provinces are big borrowers, both by their own historical standards and by international comparison. Figure 1 plots the provinces’ aggregate net debt- and deficit-to-GDP ratios over the last three decades. Deficits spiked during the 1990s, reaching as high as 3.5 per cent of GDP in fiscal year 1992-93. Debt stocks increased accordingly, peaking at 29.2 per cent of GDP in 1999-00, the year the sector returned to surplus. Provinces did not incur large or sustained deficits again until 2008-09 or shortly after the onset of the global financial crisis. Recent deficits have not been as large as those of previous crises, but provinces entered 2008-09 with larger debt overhangs. Their debts quickly regained their historic peaks as a result. The sector’s debt to GDP reached 28 per cent in 2012-13.

How do provincial debts compare internationally? No single measure captures the risks of provincial debts perfectly. Accordingly, this report examines the issue from three perspectives. First, it considers debt to GDP. This provides a rough sense of national systemic risk, but it is a poor measure of debt sustainability, particularly at the subnational level, where the capacity to tax local income varies considerably across countries. Accordingly, the second measure is subnational debt as a percentage of subnational revenue, the ratio favoured by rating agencies. Even this picture, however, is incomplete. The risk of contagion does not only depend on the overall size of provincial debt. It also depends on its distribution. Crises are more likely to spread if debts are concentrated in a small number of large jurisdictions.

Figure 2 displays the first two measures: (1) gross liabilities as a percentage of GDP and (2) gross liabilities as a percentage of total subnational revenues (the OECD does not provide readily available data on net subnational debt14). The figures are aggregated, by sector, for the first-tier regions of eight advanced industrialized federations. The Canadian provinces’ gross debt accounted for roughly 50 per cent of GDP in 2011, by far the highest percentage. It also accounted for 145 per cent of total revenues, second only to the German Länder. Readers should interpret Figure 2 with caution. Gross debt is a crude indicator of debt sustainability; it does not net out assets dedicated to debt servicing. But this detail should not distract us from the big picture: The Canadian provinces are big borrowers by international comparison.

Aggregate debts only tell part of the story. Systemic risk also depends on their distribution. According to the OECD, roughly 75 per cent of gross provincial liabilities belong to Ontario and Quebec. A default by

14 And net debt figures are not, generally speaking, comparable across countries anyway.
either would devastate Canada’s economy. But even a small province could, given this distribution, wreak havoc. Its struggles would signal that other — much larger — provinces are at risk. Subnational debts in most other federations are more diffuse. This limits the contagion that any single unit can trigger.15

Ontario and Quebec are among the world’s largest subnational borrowers. A comprehensive dataset of subnational debt at the level of individual governments does not exist. However, Moody’s provides data on U.S. states and the non-U.S. local and regional governments that it rates. Of these nearly 300 entities, Ontario’s total debt was the largest in 2012 (see Figure 3). Its net debt was second largest. Quebec was third on both counts.

These figures give us a sense of the size, but not the breadth of the provinces’ capital market presence. Foreigners hold large shares of the provinces’ Canadian-dollar denominated debt and provinces borrow in a wide range of currencies, including U.S. dollars, Euros, Chinese Yuan and Japanese Yen.16

Perhaps the most alarming aspect of provincial debt is not its level, but its trajectory. Provincial debts continue to rise despite the absence of a credit crisis or a sharp rise in interest rates. At the time of writing, only three provinces (British Columbia, Alberta and Saskatchewan) were in surplus and another three (New Brunswick, Nova Scotia and Ontario) were not scheduled to balance their books until 2017-18.17 Even these long-term targets will be difficult to achieve. Provinces face a number of fiscal challenges, including rising health care and education costs, ageing populations, rigid wage bills, weak economic and revenue growth and, in natural-resource based provinces, declining energy prices.

15 Three of Germany’s 16 Länder owe roughly 50 per cent of the sector’s debt (OECD 2013).
16 Foreign currency debt as a percentage of direct debt in 2012 was 17.4 per cent for British Columbia, 27.2 per cent for Manitoba, 18.4 per cent for Newfoundland and Labrador, 24.3 per cent for Ontario and 17.4 per cent for Quebec (Moody’s 2014b).
17 TD Economics 2015
Box 2: Ontario and Quebec’s debt sustainability compared

Rating agencies use a number of measures to assess the sustainability of subnational debt. Debt- and interest-to-revenue ratios are among the most important. Ontario’s net debt reached 226 per cent of operating revenues in 2012, placing it 15th among the 243 non-U.S. local and regional governments rated in 2014 by Moody’s. Quebec’s ratio reached 197 per cent, high enough for 18th in the Moody’s sample. Ontario’s interest payments accounted for 9.3 per cent of operating revenues in 2012, third among Moody’s-rated entities (only Auckland Council and Berlin were higher). New Brunswick’s ratio (8.5 per cent) was fifth and Quebec’s (8.1 per cent) was sixth (Moody’s 2014b).

FIGURE 2: GROSS SUBNATIONAL DEBT AS A PERCENTAGE OF GDP AND SUBNATIONAL REVENUES, FEDERAL REGIONS, 2012

Source: OECD National Accounts. This figure compares the gross consolidated debts, as a percentage of GDP and revenue, of the German Länder, Canadian provinces, Spanish regions, American states, Australian states, Swiss cantons, Austrian Länder, and Belgian regions and communities. Figures refer to 2012 with the exception of Canada (2011) and Switzerland (2010). The Australian and American figures include both state and local or municipal liabilities.
FIGURE 3: TEN LARGEST LOCAL AND REGIONAL GOVERNMENT BORROWERS RATED BY MOODY’S INVESTORS SERVICE, 2012

Source: Moody’s Investors Service. Figures are measured in U.S. dollars adjusted for purchasing power parity. Data for U.S. states are generated by a separate unit within Moody’s and are only roughly comparable with the non-U.S. data. Moody’s calculates net direct and indirect debt “by subtracting, from total direct and indirect debt, financial assets dedicated to debt retirement, such as sinking fund assets, and any debt related to guarantees and government-majority-owned enterprises deemed to be financially self-supporting (i.e., able to cover debt service payments from their own operations without showing a need for recourse to taxpayer-supported aid).” Moody’s definition of total direct and indirect debt “refers to debt issued by the subnational government as well as other debt the subnational may be responsible for, including all short-term and long-term debt of the government; debt obligations issued by the government on behalf of government-owned enterprises; other debt guaranteed by the government; debt obligations issued by majority-owned enterprises even if not guaranteed by the government; and debt-like instruments such as capital leases, public-private partnerships (PPP), and securitization transactions for which the government is or may become responsible. Accordingly, this indicator quantifies the extent to which a government may become responsible for debt issued by other related entities through explicit guarantees, ownership, or other factors.”
The state of provincial credit

How have these developments affected provincial credit? Have credit ratings plummeted? Have interest rates spiked? Hardly. Interest rates are low, credit ratings are high, differences in provincial borrowing costs are narrow and foreigners continue to seek haven in provincial debt.

Figure 4 plots annual interest rates on 10-year Government of Canada, Ontario and Alberta bonds from mid-2004 to mid-2014. Provincial rates were around three per cent in the summer of 2014.

**FIGURE 4:**
INTEREST RATE ON 10-YEAR BONDS FOR GOVERNMENT OF CANADA AND SELECTED PROVINCES

Source: Statistics Canada, CIBC World Markets, author’s calculations. Spreads are constant-maturity estimates of what bonds would yield on primary markets were a province to issue that day.
Provincial-federal spreads began widening in late 2007 and, while they have narrowed lately, remain above their pre-financial crisis lows. It is tempting, given rising debt levels, to attribute higher spreads to deteriorating finances. But spreads and budget balances do not closely correlate over time. The biggest driver of spread widening and volatility is risk aversion. Spreads spiked shortly after the Lehman Brothers default (the peak of the financial crisis) and flared up again during the initial stages of the Greek debt crisis. That they have not returned to pre-crisis levels suggests a level of risk aversion remains.

These complexities make it difficult to discern investor confidence from provincial-federal spreads. A cleaner approach is examining inter-provincial differences. Figure 5 plots average 10-year provincial spreads in 2013 against the provinces’ 2012 net debt-to-revenue ratios. Saskatchewan’s average yield, which was the lowest of all provinces in 2013, is set to zero. Ontario’s debt-to-revenue ratio in 2012 was 226 per cent. Saskatchewan’s was 31 per cent. And yet Ontario paid, on average, only 0.16% more than Saskatchewan. This is hardly a punishing premium.

The major credit rating agencies also consider provincial bonds extremely safe; much safer than media coverage of provincial rating downgrades would have us believe. Figure 6 plots Moody’s “idealized” or expected default rates for selected rating grades over a 30-year period. Provincial ratings are available in the legend. The plot is striking. The likelihood of Ontario defaulting over the next 30 years is, according to the agency, roughly two per cent. If Ontario were downgraded a hefty four notches, that figure would increase to roughly 10 per cent. Incidentally, Moody’s long-term ratings — or the ratings highlighted in rating reports and the press — are based on four-year default rates. The chance of Ontario defaulting over this horizon is, according to Moody’s, virtually zero (or 0.04 per cent).

Foreign investors have also cast a vote of confidence. American, European and Asian holdings of provincial bonds have increased significantly in recent years. This growth is not because of a lack of domestic demand; Canadian investors continue to buy the brunt of provincial bonds. Rather it reflects the attractive mix of safety and return on provincial bonds in a high-risk, low-interest-rate environment.

18 Other factors include extraordinarily low rates on federal bonds and the sharp and recent influx of foreign capital into Canada’s government bond markets. The latter flows have favoured federal over provincial debt partly because of risk aversion and partly because of a lack of information on provinces and their credit characteristics (Hanniman forthcoming(a)).

19 These data are theoretic estimates of what a province would pay if it were to issue a bond on a given day. They come from CIBC World Markets, a major market maker and underwriter of provincial debt.


21 Moody’s ratings are assessments of “expected losses.” I focus on expected default probabilities, because they are easier to interpret.

22 Hanniman forthcoming(a).
Why, despite carrying significant debt burdens, do provinces borrow on such good terms? This report offers two explanations: factors offsetting provincial default risk (Canada’s fiscal federal framework and low levels of sovereign risk) and the low-interest rate environment.

4.1 Fiscal federalism and sovereign risk

Subnational governments are not, strictly speaking, sovereign borrowers. They belong to complex webs of intergovernmental relations that make their repayment capacity more or less credible. These relationships, along with sovereign creditworthiness, are the most important determinants of default risk. If inter-provincial spreads are narrow, despite large and variable debts, it reflects bondholders’ confidence in Canada’s fiscal federal framework.

Moody’s provides insight into this issue in a recent report. It notes what students of comparative federalism have known for some time: that provinces have extraordinary capacity, perhaps unparalleled among subnational governments, to generate own-source revenues. Not only do they have access to virtually every conceivable tax stream, but they are also unencumbered by the self-imposed limits (such as super-majority and referendum requirements) for raising taxes common in U.S. states. This allows provinces to generate additional revenues in the event of distress.

But even if provinces fail to pay their debts, markets are confident Ottawa will. Ottawa does not formally guarantee provincial bonds, but formal commitments matter little. What matters is what markets expect Ottawa to do in the face of an imminent provincial default. Would Ottawa bail out the offending province? Or would it let it fail?

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23 Euroweek 2014.
24 Hanniman forthcoming(a).
25 2014a.
BOX 3: OTHER DETERMINANTS OF PROVINCIAL CREDIT SPREADS

Section 4.1 highlights the primary drivers of provincial creditworthiness: revenue autonomy, implicit bailout guarantees and sovereign creditworthiness. Other factors not highlighted can also lower borrowing costs. These include the provinces’ transparent accounting practices; sophisticated debt management strategies (extensive use of foreign currency swaps, minimal use of variable interest rate debt, smooth bond maturity profiles, etc.); aggressive investor relations efforts; and Westminster-style political institutions that limit the legislative gridlock that plagues fiscal policymaking in the U.S. and the Eurozone. There are, however, aspects of the provinces’ governance frameworks that rating agencies do not like. Foremost among them is the lack of federal (and meaningful provincial) rules limiting provincial borrowing (more on this below).

Credit spreads also reflect investors’ time horizons. Holders of long-term bonds should, all else being equal, be more concerned about long-term repayment capacity than holders of short-term paper. In reality, however, lenders’ time horizons are almost always shorter than the maturities of the bonds they hold. This reduces incentives to price long-term risks, which partly explains why long-term bond yields are so low.

A recent study puts this question to 18 provincial bondholders and finds that the vast majority (16) anticipate a high or very high probability of bailouts for provinces on the verge of default. The findings are broadly consistent for all provinces, including massive Ontario and tiny Prince Edward Island. The causes of investors’ bailout beliefs vary, but one stands out: Over 90 per cent of investors interviewed said the economic costs of a default — including higher unemployment, lower growth and Canada’s damaged reputation in credit markets — would force Ottawa’s hand. No doubt this belief reflects the provinces’ massive presence in capital markets.

Economic impacts are not, however, the only factors on investors’ minds. Interviewees also took cues from the transfer system, including its equalization component. Equalization does not formally commit Ottawa to bailouts. But its goal of ensuring every province is capable of delivering comparable levels of services at comparable levels of taxation signals something similar: a national commitment to protecting vulnerable regions and their residents from fiscal distress. Several investors spoke to this implicit commitment.

Above all, however, the provinces benefit from Canada’s sovereign rating. Canada was the only G7 country to maintain a

28 Hanniman 2013.
29 This claim is not uncontroversial. Several scholars claim investors do not, in fact, perceive an implicit bailout guarantee. The reason stems from provinces’ taxing authority. Canadian provinces have access to virtually every tax stream, which allows them to generate additional revenues in the event of crises. This makes it easier for Ottawa to withhold support, diminishing bailout expectations in turn (Rodden 2006). A recent analysis (Hanniman 2014) challenges this view. It finds — if anything — a negative relationship between taxing authority and bailout probabilities assigned to roughly 50 groups of subnationals by Moody’s Investors Service. Incidentally, Moody’s (2013) assumes a “high likelihood” (71 per cent to 90 per cent) of Ottawa “preventing” a provincial default in the event of an imminent default scenario.
30 The capacity to use equalization — a formula-driven program — to deliver bailouts is limited. But the principle of comparable services suggests the federal government is committed — in one way or another — to protecting vulnerable regions from default.

1 Mosley 2003.
stable triple-A rating with each of the major credit rating agencies (Fitch, Moody’s and Standard and Poor’s) throughout the entire financial crisis. Canada’s creditworthiness bolsters provincial ratings and increases investors’ faith in its implicit bailout commitments. It also contributes to lower benchmark interest rates. It is, in short, the major reason why markets are more forgiving of provincial debts today than they were in the mid-1990s, when Ottawa’s relative fiscal position was considerably weaker.

4.2 Falling benchmark rates

The biggest determinant of provincial borrowing costs is the yield on Government of Canada bonds, the benchmark for pricing provincial debt. These rates fell steadily in the years leading up to the global financial crisis, rose briefly during the crisis peak and fell sharply thereafter (see Figure 7). This fall, evident in other G7 countries as well, was driven by a number of common factors, including low inflation expectations, excess global savings, weak economic growth and the low-interest rate policies of central banks.

Interest rates fell again, in several countries, during the Eurozone debt crisis. Greece’s default and the near defaults of several other countries widened sovereign bond spreads considerably, as investors fled peripheral Eurozone debt in favour of the globe’s dwindling supply of safe assets. Canada was a major beneficiary of this trend. Its 10-year interest rates hovered around two per cent for much of 2012.

But Canada’s safe-haven status is in decline; not necessarily because of events in Canada (though concerns about the country’s overleveraged housing sector and dependence on commodities persist), but because of falling risk elsewhere. In 2012, the European Central Bank announced a conditional guarantee on sovereign debt. This triggered a sharp and steady decline in Spanish, Italian and other peripheral Eurozone spreads. Canadian, Italian and Spanish yields have more or less converged as a result.

In theory, this convergence should have resulted, in part, from rising Canadian interest rates; the price of Canadian bonds and other safe assets should have fallen with global credit risk. Interestingly, this has not taken place. Rates on 10-year Government of Canada bonds fell last year and were, at the time of writing, well under two per cent.

In sum, the provinces borrow at extraordinarily low rates despite heavy debt burdens. Canada’s fiscal federal framework, low levels of sovereign risk and low interest rates explain why. But will these conditions last?

31 IMF 2012.
Crisis on hold?

This section considers three potential triggers of higher provincial interest rates: a decline in provincial creditworthiness, a decline in federal creditworthiness and shifts in the broader interest-rate environment.

5.1 Provincial creditworthiness

Increased provincial default risk must, in light of current debt levels, be taken seriously. But it is unlikely, in and of itself, to trigger significantly higher rates. As Figure 5 indicates, the relationship between provincial debts and borrowing costs is weak.

Figure 8 is also revealing. It displays Ontario’s 10-year interest rate spread over Alberta from mid-2004 to mid-2014. The vertical lines denote the dates of Ontario’s recent rating downgrades. The downgrades did, in fact, cause spreads to increase (particularly if we recognize that increases shortly before downgrades were likely in anticipation of those decisions). But the effects were small and partly fleeting. This is not to suggest downgrades never matter. At high ratings, downgrades represent trivial increases in default risk. At low ratings, they represent significantly higher increases. The latter tend, therefore, to do significantly more harm. But provincial ratings are well above this danger zone.

It is worth noting that the provinces’ aggregate debt-to-revenue ratio, while high, is lower than that of the Japanese local and German state sectors. And yet the latter groups also have little difficulty borrowing. Higher provincial debts will not, therefore, necessarily trigger a crisis, particularly in the current interest-rate environment.

32 Spreads also increased slightly last summer when Moody’s changed its outlook on Ontario’s rating to negative and the Ontario Liberals were re-elected.
33 The dip in Ontario spreads in late 2008 and early 2009 was caused by the Lehman Brothers default. Demand for liquidity increased during this period and Ontario’s bonds, the most liquid in the provincial sector, outperformed those of Alberta, and every other province, as a result.
34 This is particularly true as bonds reach junk or non-investment grade status. Many investors will not or cannot hold junk bonds, creating a potentially large and non-linear jump in spreads when that status is reached.
5.2 Federal creditworthiness

A second trigger is a sharp decline in Ottawa’s relative creditworthiness. Such a decline would, in all likelihood, be due to recession and would undermine provincial credit through several channels. It would fuel risk aversion and increase provincial debt and benchmark interest rates. It might also trigger transfer cuts and destabilize bailout beliefs.

If this situation sounds familiar, it is because it describes, in part, the provincial crisis of the 1990s. Ottawa was not, as it is today, a model of fiscal discipline, but the poster child of fiscal ineptitude. Its triple-A rating was lost; federal and provincial spreads spiked; and the rating agencies, little more than a political irritant today, dictated the terms of Saskatchewan’s 1993 budget.

Canada’s relative standing has improved remarkably since; so much so that it has become one of the world’s preeminent safe havens. This status is not infallible, but it is difficult, given the state of European economies, to imagine Canada reclaiming the relative depths of the 1990s. Provincial borrowers will probably benefit, therefore, from their national context for some time.

5.3 The interest-rate environment

A final potential crisis trigger would be a sharp rise in global interest rates. These rates have fallen sharply since the 1990s, which explains why the provinces’ debt-servicing costs have remained manageable. But many argue that it is only a matter of time before they rise. It looked as though those days had come in late

35 It is important to emphasize relative creditworthiness, because investors have to park their money somewhere. If the entire global economy suffers, but Canada looks good in relative terms, its yields will drop, much like they did during the recent global financial crisis.

36 The political incentives to provide bailouts would remain and the economic incentives (e.g., stemming contagion) would increase, but Ottawa’s ability to deliver bailouts would decline.

37 MacKinnon 2003. Rating agencies were more influential in this context. Because provincial ratings were lower, a one-notch downgrade implied a higher increase in default risk.
2013, when the Federal Reserve announced plans to taper its quantitative easing program. Bond yields, including Canada’s, spiked in anticipation of a reduction in global liquidity. But yields fell soon after, as global growth prospects dimmed, conflict between Ukraine and Russia intensified and fears of Eurozone deflation resurfaced. Yields dropped even further in 2014.

An interesting question (and one growing numbers of economists are asking) is whether low rates have become the “new normal.” Most arguments along these lines emphasize a combination of high savings in emerging economies; stagnant growth and investment in developed economies; unconventional monetary policies; and, in light of lingering risk aversion and new regulatory requirements, strong demand for low-risk bonds.

Some point to a deeper problem. With short-term nominal interest rates approaching zero, developed economies may have entered a “liquidity trap.” Growth is stagnant and the conventional means of stimulating it, increasing the money supply to lower interest rates, is losing traction.38 Central banks are unlikely to raise rates in this context. The implication, in the absence of major policy innovation, is a period of indefinitely low rates. The Bank of Canada has indicated that Canada may be on this low-rate path, even if it does not cite the liquidity trap as the reason.39

This paper makes no hard and fast predictions about the direction of interest rates, but it does argue that the risk of a large and immediate increase is lower than some assume.

38 According to Krugman (2008), “The liquidity trap [is] a situation in which conventional monetary policy loses all traction. When short-term interest rates are close to zero, open-market operations in which the central bank prints money and buys government debt don’t [stimulate the economy], because [the central bank is] just swapping one more or less zero-interest rate asset for another.”

39 Financial Post 2014. See also the Bank of Canada’s discussion paper on Canada’s neutral interest rate (Mendes 2014).
Limiting provincial debts

The immediate threat of significantly higher interest rates appears low. This is not, however, reason for complacency. Bond markets are fickle and the long-term risks of provincial debts are large and growing. It is imperative that Canadian governments put provincial finances on more sustainable footing. What measures should they take?

The answer depends on the causes of provincial deficits. Explanations vary. They include provincial mismanagement; the provinces’ demand-driven social programs (e.g., education and health care); ageing populations; and, with respect to Ontario and other non-natural resource based provinces, Canada’s exchange rate policies and Dutch Disease. Overlaying this debate is the question of whether debt sustainability is best served by countercyclical fiscal policy, austerity and structural reforms or some combination of stimulus and structural adjustment.

This report makes no effort to resolve these complex debates, let alone to identify the most important causes of provincial deficits. Rather it addresses three increasingly prominent explanations, all of which speak to the report’s fiscal federal theme.

The first attributes persistent deficits to a lack of sufficient demand. Austerity would, according to this logic, ultimately widen, rather than narrow, provincial deficits. The second attributes provincial debt to moral hazard: Provinces borrow beyond their means, because creditors — who assume provincial debts are federally guaranteed — let them. The third focuses on Ontario, Canada’s largest provincial borrower, and blames its fiscal woes on what the Drummond Report calls the “perverse structure of Canadian fiscal federalism,” a structure in which residents of Ontario, a province with below-average fiscal capacity, contribute more to federal coffers than they receive.

40 Courchene 2013, Parliamentary Budget Office 2014.
41 Spiro 2013. At the time of writing, concern was shifting to commodity-based provinces, whose budgets were under the strain of falling energy prices. This, of course, is the flipside of Dutch Disease.
42 Joffe 2012.
6.1 Lack of sufficient demand

Some argue that provincial deficits are largely cyclical. They were triggered by the 2008-09 recession and persist because of inadequate aggregate demand. A 2013 report by the Canadian Centre for Policy Alternatives makes this argument with respect to Ontario.\textsuperscript{44} It argues against a rapid reduction of the deficit, which would, the report suggests, exacerbate long-term deficits by undercutting the province’s economic recovery.

This study neither endorses nor rejects this view. It does, however, make two points. First, countercyclical policies are easier to defend at the national level, where borrowing costs are not as sensitive to deficits and financial shocks. Provinces had virtually no room — given their tenuous access to credit — for expansionary fiscal policies in the early 1990s and they would have even less room — given their debt overhangs — in the event of a similar shock today. This does not mean provincial Keynesianism is always ill-advised, particularly in a low-interest rate environment. However, its defense is far from straightforward.

Second, the provinces’ implicit bailout guarantee facilitates one aspect of demand management (deficits in slumps), but discourages another (surpluses in booms). Keynesians need, therefore, to be mindful of moral hazard, particularly when recovery takes root. However, they also need to be mindful of indiscipline during slumps: Deficit spending should focus on infrastructure and other productive investments, not on financing persistent operating deficits.\textsuperscript{45}

6.2 Moral hazard

Moral hazard is a second potential cause of provincial deficits and, as the previous section suggests, one not necessarily incompatible with demand-based theories. The clearest source of moral hazard is in credit markets: Provinces borrow more than they can independently sustain because risk premiums incorporate an implicit bailout guarantee.

The most intuitive solution to moral hazard is an explicit no-bailout policy. Unfortunately, this approach is as impractical as it risky. It is impractical because it is not credible: Ottawa may claim it is willing to let a province default, but would it really?\textsuperscript{46}

It is risky, because it opens the door to “self-fulfilling” defaults. This risk was nearly realized in Italy and Spain in 2012, when the biggest threats to national solvency were not unsustainable debts, but exorbitant risk premiums or fear of insolvency itself. As one recent analysis suggests,\textsuperscript{47} subnational governments are especially vulnerable to these panics. They and other constituent members of monetary unions cannot guarantee their investors liquidity because they lack control over their central banks (they borrow, in effect, in a foreign currency).\textsuperscript{48} This makes them susceptible to “bad equilibria” or situations in which deficits and risk premiums become mutually reinforcing. An implicit bailout guarantee limits this risk.

Ottawa could, in theory, stake a middle ground by making its implicit guarantee explicit and conditioning bailouts on provincial compliance with fiscal rules. This strategy would limit market panic and, if bailout conditions were sufficiently harsh, moral hazard as well. But this approach also stretches the bounds of credulity. If a bailout does occur, Ottawa will have incentives to soften its terms and provinces will recognize this. Moral hazard will thus persist.\textsuperscript{49}

Clearly, however, it is dangerous to let provinces and other implicitly guaranteed governments freely borrow. The temptation to over borrow and put other governments at risk is too great. This is why most multi-tiered systems restrict subnational borrowing in one way or another.

Unfortunately, this is not a model provinces are likely to accept. It typically emerges in states of distress, when central governments exchange bailouts for compliance with fiscal rules.\textsuperscript{50} These negotiations are not even on the

\textsuperscript{44} Hennessy and Stanford 2013.
\textsuperscript{45} Kneebone and Wilkin 2014.
\textsuperscript{46} Bondholders are well aware of the economic and financial consequences of default. A no-bailout pledge is unlikely, therefore, to hold much water.
\textsuperscript{47} De Grauwe 2013. See also Hanniman (forthcoming(b)).
\textsuperscript{48} Printing money can, of course, fuel inflation and higher interest rates in turn. But investors are generally more concerned with default than inflation risk and current inflation expectations are very low.
\textsuperscript{49} The author would like to thank Mike Moffatt for suggesting this possibility and its limitations.
\textsuperscript{50} Rodden 2002.
It is also not obvious, even if provinces were on the brink, whether centralization would occur. Provinces are jealous of their sovereignty and Ottawa lacks, for a variety of political reasons, the capacity to impose its will. This problem was illustrated, in spectacular fashion, in 1935 when Alberta chose to default rather than to accept the supervision of a national loans council.

6.3 Perverse redistribution

Provinces not only require proper incentives to balance budgets. They also require adequate resources. Whether they possess them depends, in part, on the federal transfer system. The current structure suffers from serious deficiencies, particularly with respect to Ontario. The province is struggling with below-average fiscal capacity and yet its residents contribute more to federal coffers than they receive in turn. No province should face this situation, but it is particularly worrying that it afflicts North America’s largest subnational borrower.

The most recent estimate by the Mowat Centre puts Ontario’s fiscal gap at roughly $9 billion. This figure was calculated by taking the difference between federal tax dollars raised in the province and the amount returned to individuals, governments and other entities. The precise relationship between this imbalance and the province’s deficit are difficult to pinpoint, but plausible mechanisms are not difficult to draw. Ontario receives less than its fair share of per capita transfers in a number of areas, including labour market training and housing and Ontarians receive less support from the Employment Insurance (EI) program. This shortfall does not directly

Box 4:
Self-imposed fiscal rules

An alternative to hierarchy, and one typical of decentralized federations, is self-imposed debt and deficit limits. A number of provinces have adopted these rules. Unfortunately, they are ineffective: They are regularly weakened and repealed and have little impact on fiscal outcomes. Their failure is predictable. Swiss cantons, American states and other subnational borrowers use these mechanisms to gain credibility with markets. But provincial debts are implicitly guaranteed and provinces, therefore, have little incentive to send such costly signals.

1 Tapp 2013.

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51 Ascah 1999.
52 Granofsky and Zon 2014. This figure is based on 2009-10 flows, the last year for which the Statistics Canada data necessary to make the calculation were made available.
53 Standard adjustments for the federal budget balance and money spent outside of the country were made.
54 Ontario businesses and workers contribute on net to EI, despite Ontario’s above-average unemployment rate.
affect Ontario's budget, but it does compel the government to maintain or increase existing spending or risk seeing Ontarians enjoy fewer benefits and services than other Canadians. This is worrying for Ontario, because it has some of the least room for spending cuts. Its per capita program expenditures are the lowest in the country and its delivery costs are among the highest.

Now take equalization, the most formal and visible form of inter-regional redistribution and one with a more direct impact on provincial revenues. Ontario received its first equalization payment in 2009-10 and has received them every year since. Some call these payments handouts and it is understandable how opponents of redistribution would perceive them as such. But this is a gross mischaracterization. Although Ontario receives payments, its taxpayers are net contributors. In 2013-14, they contributed $4.5 billion more to the program than the province received. This situation would be acceptable if Ontario's fiscal capacity was above the national average, but it is not.

This situation is not static. The provinces' relative fiscal positions depend on commodity prices and these prices are highly volatile. Energy prices were plunging at the time of writing and commodity-based provinces were bracing for lower revenues. Meanwhile, Ontario was benefiting from a weaker dollar and a strengthening American economy. It is possible these forces will bring fiscal positions and contributions back into line. But this possibility distracts us from a deeper problem, which is that these imbalances are allowed to occur at all. What they illustrate is the transfer system's inability to adapt to Canada's increasingly volatile economic geography. All provinces are potential victims of this inadequacy. Canadians need mechanisms to mitigate it.

These measures should not be ad hoc. As a vast fiscal federalism literature shows, blindly increasing transfers does more harm than good. Subnational officials often interpret such measures as bailouts and, in expectation of ongoing support, delay or avoid fiscal adjustment.

This is why some advocate sharp reductions in transfers and greater subnational reliance on own-source revenues. But wholesale reductions in transfers are not the answer. They might, under certain conditions, limit moral hazard. But they would impede Ottawa's ability to address the provinces' wide and growing fiscal disparities. They would also undermine Ottawa's ability to stabilize provincial finances in the event of recessions and regional fiscal shocks. Fiscal discipline is important, but it should not come at the exclusion of the transfer system's other functions.

Fortunately, it does not have to. The key to limiting bailout expectations is not eliminating transfers. It is managing expectations about their use. Even leaders of relatively self-reliant jurisdictions will shirk fiscal responsibility if they think bailouts are coming or could be had through another round of intergovernmental bargaining. The goal should be to limit federal discretion and distribute transfers according to principled, transparent and depoliticized criteria, not a process that potentially rewards and encourages deficit spending.

But calls for complete depoliticization are naïve and potentially dangerous. Redistributive transfers cannot avoid renegotiation forever, nor should they. Funding formulas that fail to adapt demand change. What is needed is a means of reconciling principled and transparent transfers with occasional and even regular need for reform.

58 Rodden 2002.
59 Canada's vertical fiscal imbalance (or the proportion of transfers over total revenues) is already low. Even PEI, the country's most transfer-dependent province, relies more on own-source taxation than the typical Australian state, German Länder or Italian or Spanish region. What is more, Canada's equalization system is not, by international standards, highly redistributive. It absorbs a smaller share of GDP than similar programs in most developed federations. It also leaves larger shares of horizontal imbalances un-equalized (Blöchliger 2013).
60 Rodden and Eskeland 2003. In the words of Bird and Smart, "The basic task in transfer design is...to get prices [i.e., incentives] 'right'...[R]ight...in the sense of making local governments fully accountable — at least at the margin of decision-making — to both their citizens and, where appropriate, to higher levels of government. Transfers that are properly designed can achieve this goal even if they finance 90 [per cent] of local expenditures. Poorly designed transfers will not, even if they finance only 10 [per cent] of expenditures" (2002: 899).
61 Canada's transfer system is, in fact, largely formula-based. The problem is Ottawa's ability to alter these formulas as it pleases. This discretion is the theoretical source of bailout expectations, even if it is not clear whether it is a source of bailout expectations in Canada currently.
6.4 An independent council to monitor transfers

One way of striking this balance is the creation of an independent body for monitoring and evaluating Canada’s transfer arrangements. Neutral reporting would not eliminate federal discretion or intergovernmental bargaining. Thus, the potential for bailouts and perverse redistribution would remain. However, it could limit these tendencies by exposing — for the public and the media to see — unprincipled transfers and bargaining positions.

The idea of an arms-length body for monitoring Canada’s transfer arrangements is not new. The O’Brien Commission (the Expert Panel on Equalization and Territorial Formula Financing) rejected the idea on the grounds that it would undermine federal accountability for Equalization. Provincial officials interviewed by the commission worried that the public would be reluctant to monitor and challenge the council’s expert opinions.

But a neutral body is more likely to enhance than discourage public oversight. Voters and journalists cannot hold the federal government accountable for transfers unless they understand their operation and effects. Today this knowledge is limited to a handful of experts and government officials. An independent body would partially remedy this.

It is important to acknowledge the limits of this proposal. The redistributive stakes of federal transfers are high. Thus, a council would achieve, at best, a modicum of depoliticization. It is also unlikely to undermine investors’ bailout expectations, a major source of moral hazard.

And yet a council’s appeal is greater than ever. The provinces’ relative fiscal positions are in flux; transfer formulas are failing to keep up; and provinces — who bear the brunt of education and health care expenses — face significantly higher cost pressures than the federal government. Thus, bargaining and conflict over transfers will likely grow. One of the worst outcomes would be a series of ad hoc deals that look and feel like bailouts. A council would limit this risk.

A council’s success would depend on the principles it uses to evaluate transfers. Exhaustively describing these is beyond the report’s scope. But at least four deserve consideration.

- Fair redistribution. Residents of provinces with below-average fiscal capacity should not contribute (in net terms) to the Equalization Program. Nor should residents of provinces with above-average capacity benefit from it.
- Fiscal effort. Well-designed transfers encourage provinces to exploit and grow their tax bases, not to substitute federal support for own-source revenues. A council could limit this threat by ensuring funding criteria are not easily manipulated.
- Macroeconomic stabilization. Intergovernmental transfers are often pro-cyclical (increasing under good and decreasing under bad economic conditions) or ad hoc (increasing during recession but not according to clear and rational criteria). The best way to limit these tendencies is unclear, but building automatic stabilizers into existing transfers is one possibility. This would limit ad hoc bailouts while smoothing revenues across the business cycle. It would also limit pressure for provincial borrowing and shift the onus of counter-cyclical policies onto the federal government, where (for reasons described in this report) it belongs.
- Risk sharing. In addition to country-wide stabilization, transfers can also insure units against adverse and asymmetric shocks. This feature is particularly appealing in Canada, where commodity and non-commodity based provinces face distinct economic risks. The transfer system already contains risk-sharing features, but several prominent observers believe these properties can be improved.

63 Some scholars recommend hardening subnational budget constraints by delegating authority over transfers to independent commissions (Rodden and Eskeland 2003). But a body responsible for advising Ottawa on reforms is a more realistic and arguably more desirable proposition in Canada.
66 It is possible, of course, that the federal government would accept without reservation the recommendations of such a body, much as the Australian government accepts the recommendations of the Commonwealth Grants Commission (Béland and Lecours 2012). But the risk of a technocratic takeover in Canada, where inter-regional redistribution is highly politicized, is low.
67 Rodden and Wibbels 2009.
68 National stabilization and risk sharing need to be carefully calibrated, however, to ensure incentives for provincial self-insurance remain.
69 The most explicit form of regional stabilization is the Fiscal Stabilization Program, which provides provinces with stabilizing transfers if certain revenues fall below a certain percentage of the previous year’s levels. See Selinger and Neumann (2005) for further details. See Boothe (2005) for an analysis of the Equalization Program’s stabilization properties. See Dhalby (2014) for suggestions on how to improve these properties.
Conclusion

Provincial debts in Canada are large and growing. This situation is not impeding the provinces’ ability to borrow. Nor is it likely to any time soon. But this is no reason for complacency. Provincial debt is a serious long-term risk, not only to heavily indebted provinces, but to Canadians at large.

Governments need to place provincial finances on firmer footing. Unfortunately, some of the most intuitive solutions — explicit no-bailout policies and federal limits on provincial borrowing — are unworkable or ill-advised. The search is on, therefore, for more creative approaches. This report — which provides a fiscal rationale for neutrally monitoring federal transfers — takes a step in this direction.
Work cited


Kneebone, R., and Wilkin, M. 2014. Who, or What, is to Blame for the Accumulation of Debt in Ontario and Quebec (And What Will it Take to Stop the Bleeding?). The School of Public Policy, University of Calgary.


## Appendix

### PROVINCIAL CREDIT RATINGS (AS OF AUGUST 1, 2014)

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<th>Moody’s</th>
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<td>Aaa</td>
<td>AAA</td>
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