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BIG IDEAS (?) FOR MUNICIPAL FINANCES IN ALBERTA

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Big Ideas (?) for Municipal Finances in Alberta

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Abstract

Municipal finances have of late become important topics of concern for policy-makers. A good deal of concern has been expressed that municipalities have too limited a menu of revenue choices from which to choose and that this is constraining their ability to facilitate the proper functioning and growth of large cities. Solutions that have been bandied about include those which would require a role for the federal government in municipal affairs; a role not supported by the Canadian constitution. Although a good deal of hand-wringing is done over the question of the sustainability of municipal finances, there is little in the way of hard evidence to support or deny the notion that municipalities have insufficient revenues to satisfy their expenditure responsibilities. This paper presents and discusses some new but preliminary evidence on the issue. It concludes that much more work needs to be done investigating the fiscal sustainability of cities before dramatic changes in intergovernmental relations in Canada are considered.

1. Introduction

When it comes to the finances of municipal governments in Canada there would appear to be a disconnect between the opinions of academic and think-tank economists who study this issue and the opinions of municipal politicians who talk about it. The judgement of academic and think-tank economists is nicely summed up in the recent C.D. Howe Commentary "Running on

* This paper expands upon a slide presentation that I was invited to prepare for presentation at a conference sponsored by the C.D. Howe Institute. That conference, "Big Ideas for Alberta Tax Reform", was held on March 2, 2006 in Calgary, Alberta. I owe thanks to Kate White for excellent research assistance and to Jesus Vito for allowing me to rely heavily on the results of his M.A. thesis. I remain responsible for any errors or omissions. Comments welcome.

Empty" by Jack Mintz and Tom Roberts. That paper examines proposals to improve city finances and concludes that current tax fields available to cities are adequate to meet their expenditure obligations. Some tweaking might be called for in the form of encouraging cities to rely more heavily on user fees and to make some modest adjustments to property taxes but nothing major – certainly no "big idea" -- is required. Given the conclusions of that paper, cities in Alberta would seem to have basically got it right. Cities in Alberta rely more heavily on user fees than cities in other provinces. If additional revenue is required, an increase in the residential property tax would be appropriate since in Alberta those rates are currently low both historically and relative to non-residential rates. The report stresses that in general should additional revenue be needed it should be raised within the local jurisdiction. Increases in transfers from more senior levels of government are not called for since this lessens the political accountability of local politicians. In response to the question "Is a new revenue source needed?" the report concludes that "*The burden of proof lies with those who would argue that municipalities need new revenue sources*." My reading of the literature suggests this is the common conclusion from economists studying municipal finances in Canada.

The view of municipal politicians, particularly those of the big cities, is very different. They claim to need additional funds to ward-off a funding crisis. Recent calls for a federal "cities agenda" and what appears to be a new, coordinated effort by mayors in Alberta to extract more revenue from the provincial government are justified by what seems to be two claims:

(1) The revenue sources available to cities are inadequate to meet their expenditure responsibilities, and
(2) Cities face an infrastructure crisis in the form of a huge bill for expanding and rebuilding infrastructure, a bill they cannot afford to pay without support from more senior levels of government.

The solution to both these problems as proposed by big-city mayors, including those in Alberta, is an increase in transfers from more senior levels of government and access to new revenue sources. Hence, we see demands from mayors for a transfer to cities of federal gasoline tax revenue and we see the recent proposal that the education portion of the property tax be retained by the cities.

If the politicians are correct that their access to revenue is insufficient to meet their expenditure responsibilities and that they face an infrastructure bill that they cannot afford to pay, then big ideas for municipal finances are indeed called for. But if the economists are correct, that finances in fact seem sustainable, there is little need for big ideas. What are the facts?[1]

2. Fiscal Sustainability

Are municipal finances sustainable? Big-city mayors and the Federation of Canadian Municipalities often cite data showing that only about 5 cents of every tax dollar paid goes to

[1] I recognize that as an academic economist I am in danger of being accused of presenting facts that serve to set up a straw man for me to knock down. In my defence I will say that I am trying to let the data speak for themselves. From what I have seen there has been very little examination of the fact in this debate, only unsupported claims.

municipal governments while the rest goes to provincial and federal governments. This evidence is often used to justify some redistribution of revenues from more senior levels of government to municipalities. Of course, these calculations have nothing to do with the issue of fiscal sustainability. That issue is properly defined as being whether municipal governments have access to revenue sufficient to meet their expenditure obligations without the need to impose unreasonably high tax rates or provide unreasonably low levels of services.

Fiscal sustainability is an issue that should be examined using data describing the current state of municipal finances and also data describing expected *future* revenues and expenditures. The latter consideration is important because even if finances are currently sustainable, if the cost of meeting expenditure obligations is expected to grow faster than the revenue generated by those revenue sources currently available to cities, then in the future municipal tax rates may need to rise to inappropriately high levels. If so, then city finances might be deemed to be unsustainable.

What is the evidence on this question of long-run sustainability? To my knowledge, there is no published evidence providing an answer to that question. Recently, however, Jesus Vito (2005) produced an M.A. thesis on this very issue. In his thesis Vito examined the operating budgets of the cities of Calgary and Edmonton over the period 1994-2003. The relatively short time-frame of the sample is explained his desire to use data from the two cities published by the same reporting agencies; in this case the Government of Alberta's *Municipal Financial Information System* (MFIS) database.[2] While the short time series used in Vito's thesis is a limitation, the fact that municipal revenues and expenditures are driven by variables which grow more or less at trend – inflation and changes in demographic variables in particular – makes me think that this is not a serious limitation. Nonetheless, more work needs to be done on this important issue.

Vito estimated empirical relationships meant to identify the determinants of components of municipal expenditures and revenues in each of Calgary and Edmonton. He found that the key determinants of the seven expenditure categories he considered were population, demographic characteristics, and inflation. Similar empirical relationships were estimated on the revenue side for user fees and 'other revenues.' Finally, an empirical relationship was established describing residential and non-residential property tax assessments. Having established these empirical relationships, Vito used forecasts of population, shifting demographic characteristics, and inflation to the year 2025 to project what will happen to municipal expenditures, user fee revenue, 'other revenues', and property assessments between 2003 and 2025. Having done so, he then calculated what would need to be the residential and the non-residential property tax rate required to balance each city's operating budget. As a sensitivity analysis, Vito produced these calculations for three population scenarios. Figures 1 through 4 summarize his results.

The height of the blue bars measured the size of observed property tax rates for the period 1994-2003, inclusive. The height of the horizontal line measures the average value of the mill rate over that period. The height of the red, yellow, and green bars measure forecast values of the tax rate under alternative assumptions about rates of population growth.

[2] In current work extending Vito's thesis, I am constructing a much longer time series for the City of Calgary. I will talk and present some data from that effort in what follows.

Figure 1: City of Calgary, Residential Property Tax Rate, Actual and Forecast, 1994-2025

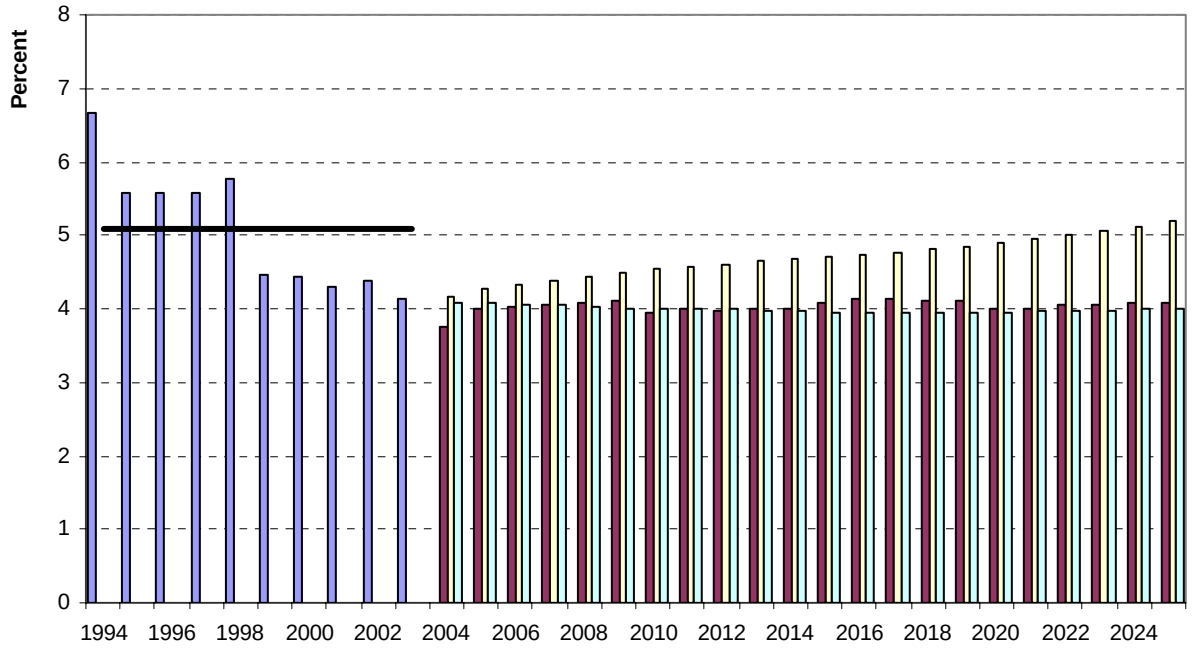


Figure 2: City of Calgary, Non-Residential Property Tax Rate, Actual and Forecast, 1994-2025

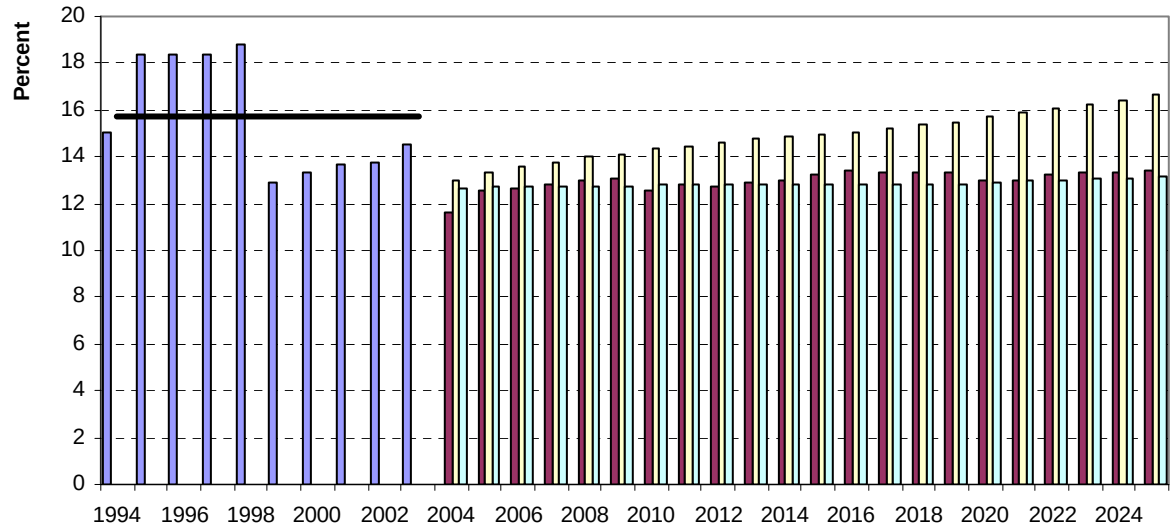


Figure 3: City of Edmonton, Residential Property Tax Rate, Actual and Forecast, 1994-2025

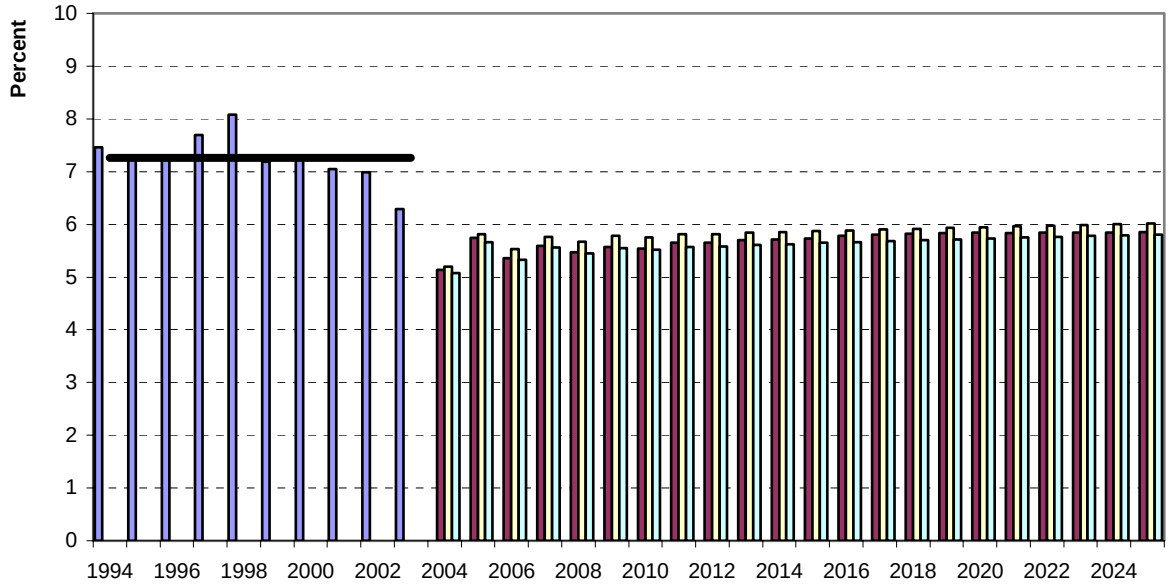
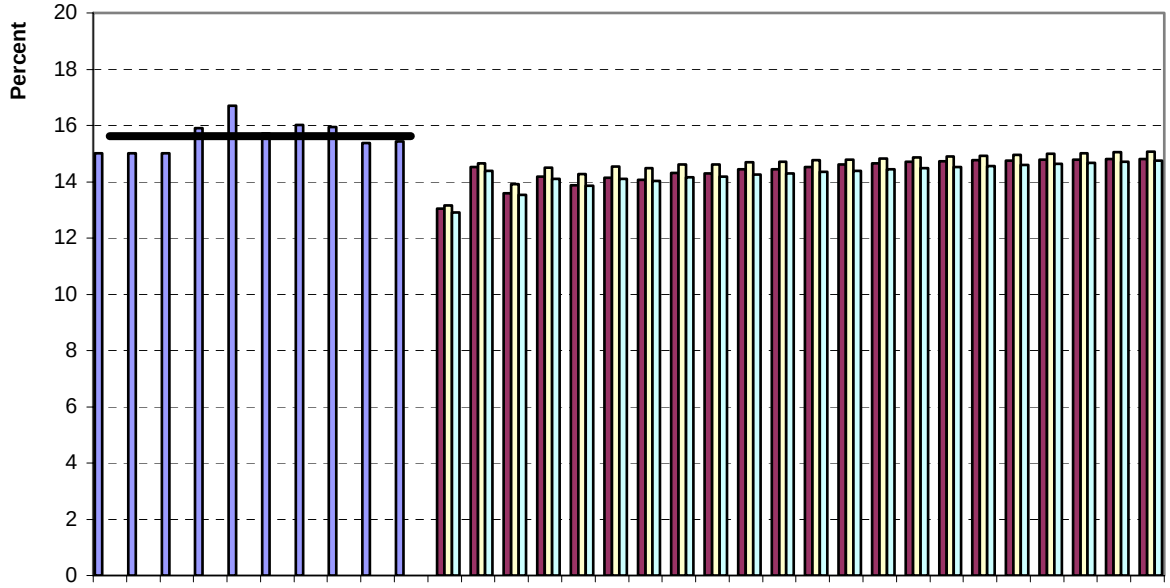


Figure 4: City of Edmonton, Non-Residential Property Tax Rate, Actual and Forecast, 1994-2025



We observe the following;

- Residential tax rates have been falling over the period 1994-2003 and as of 2003 were below the average for the past 10 years. This is particularly so in Calgary. This reflects strong growth in assessments which allows cities to collect additional property tax revenue even while reducing the tax rate. There would therefore seem to be little reason to claim Edmonton and Calgary are currently in a position of imposing unreasonably high tax rates. They would appear, in other words, to currently be fiscally sustainable.
- Under all of the population projections, forecasts of the size of the tax rate which will be required to balance Calgary and Edmonton's operating budgets fall well within historical norms. In neither city do property tax rates need to rise to abnormal levels in order for Calgary and Edmonton to meet their projected expenditure responsibilities. The evidence, then, suggests that neither city is in a situation of being so limited in their access to revenue that they can legitimately be claimed to be fiscally unsustainable.

I reiterate that further work on this issue needs to be done. I recognize, for example, that initial conditions matter. If the governments of the cities of Calgary and Edmonton are currently spending on programs amounts less than what is optimal, then Vito's calculations only support the conclusion that what is currently an undesirable level of spending is sustainable into the medium-term. Having said that, Vito's results would seem to suggest that there is room to manoeuvre for these governments without them needing significant new revenue-raising powers. I think, then, that at least for now it is appropriate to reiterate the conclusion of Mintz and Roberts, that the burden of proof lies with those who would argue that municipalities need new revenue sources.

Another problem with Vito's results, and any similar sort of exercise, is that it relies on forecasts of the implications of *trends* in the determinants of operating budget revenues and expenditures. A legitimate complaint of municipal budget-makers might be that while they can handle trends it is big, unexpected deviations from those trends which are the real source of their difficulties. Kneebone and McKenzie (2003) report that city governments in Canada have often been the subject of "fiscal stress." They report that during the 1990s deficit cutting by both federal and provincial governments, and the frequency with which it was accomplished via reductions in intergovernmental transfers, was an important source of fiscal stress for local governments. Adding to the stress of having to respond to cuts to transfers was the fact cuts were often very large and very sudden. They also identify large and unexpected increases in population as sources of fiscal stress for cities.

Table 1 presents data on this issue specific to the City of Calgary.[3] The table presents measures of the rate of population growth and a measure of the size of the annual change in real per capita intergovernmental transfers. In the table, shaded cells represent years in which the City of Calgary experienced fiscal stress caused either by rapid population growth or large cuts to intergovernmental transfers. In particular, with respect to population growth, a cell is shaded blue if the rate of population growth in that year exceeded 120% of the average rate of

[3] Data on transfers to the City of Calgary are as reported in the Annual Reports of the City of Calgary. I am indebted to my research assistant Kate White for searching through innumerable annual reports and constructing these time series. Real values are produced using the CPI for Alberta.

population growth over the previous five years. A cell is shaded grey if the rate of population growth in that year exceeded 140% of the average rate of population growth over the previous five years. With respect to the percentage change in transfers, a cell is shaded blue if the real per capita transfers in that year were cut by 10% or more and is shaded grey if transfers over the past three years were cut by 20% or more.

Table 1: Sources of Fiscal Stress for the City of Calgary

	Annual Percentage Change in Real Per Capita Transfers	Annual Percentage Change in Population
1977	-9.8%	3.3%
1978	-3.2%	4.6%
1979	57.9%	5.5%
1980	-23.8%	5.6%
1981	8.5%	5.3%
1982	30.9%	1.0%
1983	-11.6%	-0.2%
1984	-1.9%	0.6%
1985	5.7%	2.1%
1986	-2.2%	1.4%
1987	-1.6%	1.2%
1988	-13.1%	1.5%
1989	-3.9%	2.6%
1990	-5.8%	1.7%
1991	-8.0%	2.3%
1992	-2.8%	1.2%
1993	-28.1%	1.5%
1994	18.0%	1.4%
1995	18.3%	1.5%
1996	-8.5%	2.4%
1997	-29.9%	3.1%
1998	3.4%	3.6%
1999	18.7%	2.8%
2000	27.8%	2.2%
2001	40.4%	1.9%
2002	-32.1%	3.2%
2003	-0.2%	1.9%
2004	-4.6%	1.2%

The table shows that more senior levels of government have often been the source of considerable fiscal stress to the City of Calgary. On average over this period, intergovernmental transfers made up about 10% of the City's revenues. Thus, a 20% cut to transfers represents a 2% cut to revenue. Probably more important, given its impact on property assessments and the demand for spending on services, is the impact of jumps in the rate of population growth. The table shows that in 10 of the 28 years shown in the table, the City had to deal with the budgetary consequences of substantially higher than normal rates of population growth.

The reason these shocks are important is because they impact the operating budget and the operating budget is required to be kept in balance. In the face of such shocks to its revenues and expenditures, the City must introduce similar "shocks" to its property tax rates, its user fees, and/or its program spending. Economists generally frown on such changes to tax rates and program spending. Such changes introduce deadweight losses that could be avoided by tax rate and program spending "smoothing." The ability to smooth budgets in this way, however, requires that governments run operating balance surpluses or deficits as appropriate. I will return to this issue below.

3. An Infrastructure Crisis?

So far I have considered only issues affecting the operating budgets of city governments. City politicians also complain that demands for replacing and expanding municipal infrastructure is such to place their finances under a great deal of strain. On the basis of these claims they suggest that city's are in need of financial support to enable them to make ground on their "infrastructure deficits."

To examine this claim, Figures 5 and 6 present data on the City of Calgary's long-term tax-supported and self-supported debt and the amounts it has spent paying interest on that debt from 1973 to 2004.[4] To facilitate comparison over time, the data is presented in real (2004 dollars) per capita terms. Since 1994, the province has had in place legislation limiting the amount of long-term debt which can be carried by a city and the amount it can dedicate to paying interest on that debt. Using the formulas defined in that legislation, these limits have been calculated for the years 1973-1993 to see what constraints this legislation might have imposed on the City had they been in-force prior to 1994.

The blue lines show observed levels of real per capita debt (Figure 5) and debt charges (Figure 6) while the red lines show the legislated limits (actual for 1994-2004 and hypothetical for 1973-1993) on these amounts.

What these figures suggest is that the City of Calgary is not currently constrained in its ability to finance infrastructure with long-term debt. Since interest rates began to fall in the early 1990s debt charges have fallen quite considerably so that today debt charges are less than half the legislated limit and they have been so since 1995. Since hitting a peak in 1984, real per capita long-term debt has fallen steadily so that currently long-term debt is only 38% of the legislated maximum. It is interesting to note that changes to its credit rating are not behind the reluctance to borrow. Standard & Poor's has awarded the City of Calgary a AA credit rating since 1985, the year after Calgary's long-term debt peaked in real per capita terms.

[4] Data on City of Calgary debt are taken from various Annual Reports of the City of Calgary. The time series excludes the debt of the municipally-owned electrical utility.

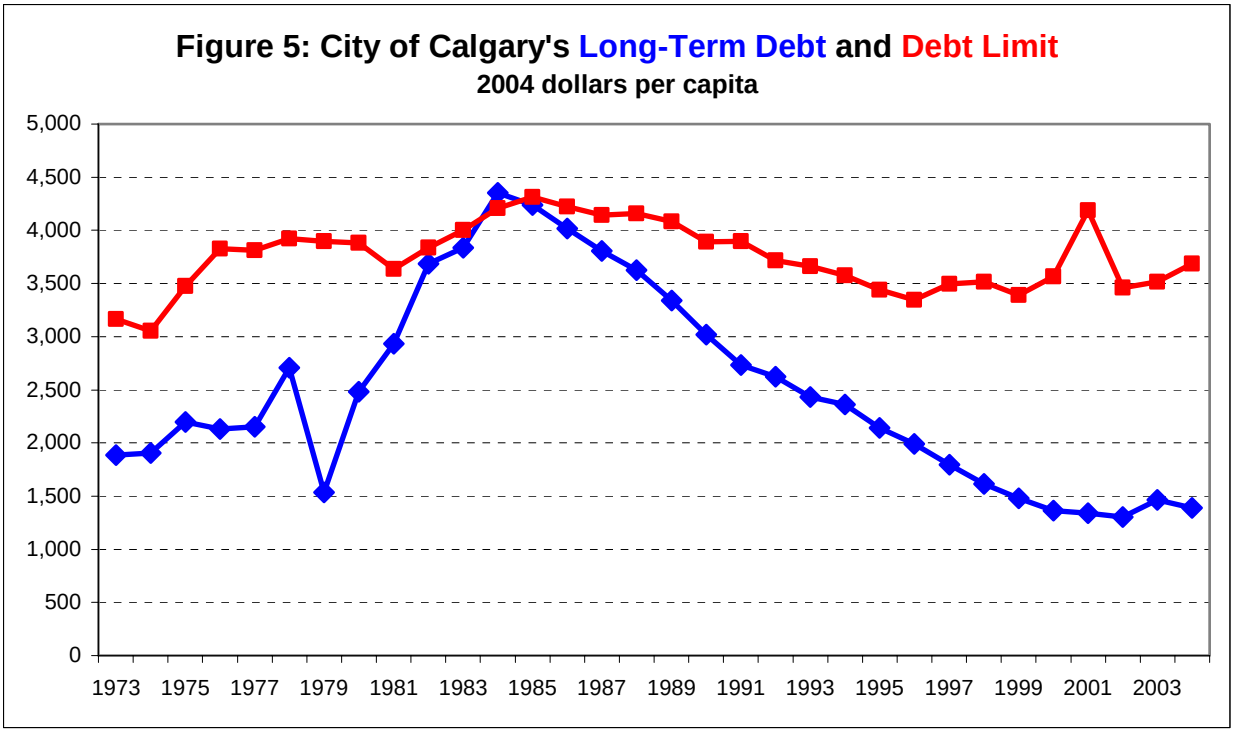


Figure 5: City of Calgary's Long-Term Debt and Debt Limit
2004 dollars per capita
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
1973 1975 1977 1979 1981 1983 1985 1987 1989 1991 1993 1995 1997 1999 2001 2003

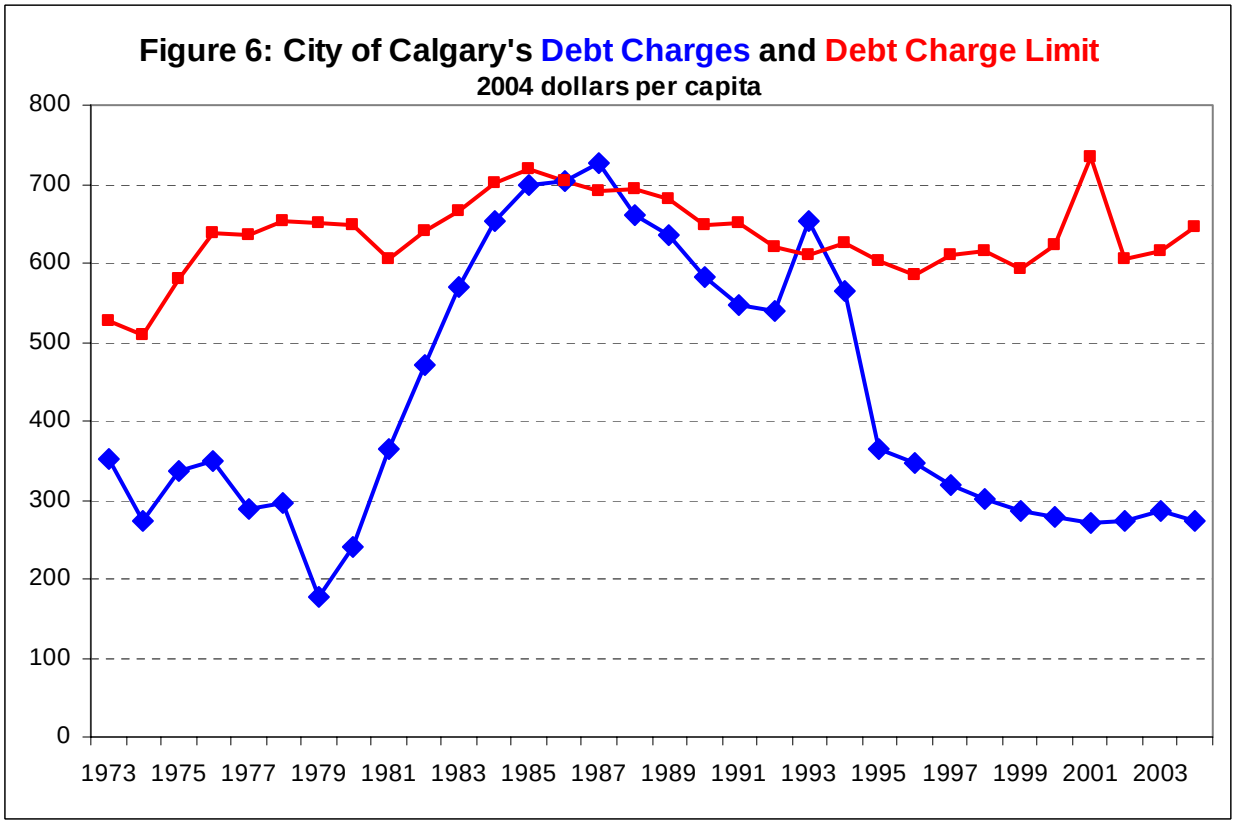


Figure 6: City of Calgary's Debt Charges and Debt Charge Limit
2004 dollars per capita
800
700
600
500
400
300
200
100
0
1973 1975 1977 1979 1981 1983 1985 1987 1989 1991 1993 1995 1997 1999 2001 2003

Although these graphs relate to the City of Calgary, Kneebone and McKenzie (2003) showed that municipalities in Alberta have since 1988 reduced debt far more than municipalities in any other province. "Fear of Debt" therefore seems to be a widespread municipal phenomenon in Alberta.

A report issued by the Canada West Foundation (Gibbins, Berdahl, and Vander Ploeg (2004)) similarly shows how Alberta municipalities have moved away from long-term debt to finance infrastructure projects. They report that in Calgary, long-term debt was used to finance an average of 64% of capital expenditures during the 1960s, 55% during the 1970s, 55% during the 1980s and just 22% since 1990. Similar changes have occurred in Edmonton. Debt has been replaced by an increased reliance on pay-as-you-go financing of infrastructure. As the CWF report notes, this change in infrastructure financing puts on today's generation the cost of building infrastructure the benefits of which flow well into the future.

4. Big Ideas?

This conference has been billed as one seeking "big ideas." Big ideas require big problems. What have we found the problems to be with respect to municipal finances in Alberta?

One is volatility in intergovernmental transfers causing volatility in the operating revenues of municipalities. The solution to this is a commitment from the province to provide stable funding to its municipalities. It is a great irony that provincial governments, who have complained long and hard about the instability of federal transfers to them, have chosen to inflict the same sort of instability on lower-tier governments in their own jurisdiction. What is good for the goose does not seem to necessarily be good for the gander.

Another problem we have identified is the impact on the operating budget due to volatility in population growth. Unexpected shocks to population growth impact upon operating revenues and expenditures and force cities to introduce compensating shocks to property tax rates, user fees, and/or program spending. As noted previously, economists generally frown on such changes to tax rates and program spending as they introduce deadweight losses that could be avoided by tax rate and program spending "smoothing." The ability to smooth budgets in this way, however, requires that governments run operating balance surpluses or deficits as appropriate.

The way some cities resolve the need for tax smoothing with the legal requirement they balance their operating budgets is they establish a "rainy day" fund. They draw upon the fund to cover revenue shortfalls and contribute to it when revenues are unexpectedly high. The City of Calgary has such a fund – the *Fiscal Stability Reserve* – into which is deposited any operating surplus and from which is drawn amounts to offset revenue shortfalls, unexpected expenditures, and one-time costs. At the end of 2005, the fund was worth $73.8 million, down from $82.8 million at the end of 2004. The *FSR* in 2005 was equal to about 4% of operating expenditures.

Rainy day funds are expensive as they represent an opportunity cost measured in terms of foregone expenditures or foregone tax cuts. The pinch of this opportunity cost is apparently being felt in Calgary as the City's three-year budget plan (2006-2008) calls for $25.3 million to

be drawn from the *FSR*. By 2008, the *FSR* will contain an amount equal to just over 2% of projected operating expenditures. This would be an amount sufficient to cover a 12% shortfall in projected property tax revenue (down from covering a 23% shortfall in 2005). I don't know but I suspect that smaller communities do not maintain such stabilization funds. They may prefer to stabilize their budgets by accelerating or delaying spending and/or tax changes.

One fairly small big idea might be for the province to free its municipalities from the costs of maintaining stabilization funds or from suffering the deadweight losses due to tax and spending changes caused by shocks by establishing a provincially-funded *Municipal Sustainability Fund*. The proposed name is based on the provincial government's own *Alberta Sustainability Fund* the purpose of which is to enable the provincial government to respond to the unbudgeted consequences of shocks to its revenues and expenditures. The *MSF* would not need to be nearly so large as the *ASF*, which stands at $2.5 billion. Assuming a fund large enough to cover a 10% shortfall in municipal property tax revenue, the fund would need to contain only $184 million (using 2004 data). Assuming a fund large enough to cover a 4% shortfall in local government program expenditures would require a fund of $217 million. As it is unlikely that every municipality in the province would need to draw on the fund at the same time, I suspect $100 million would be more than sufficient.

A really big is idea is an old one and one that I am surprised mayors have not proposed: Let's have the province retire municipal debt. The *Municipal Debt Reduction Act* of 1979 did just that. In that year the province spent $1,031 million retiring municipal debt and providing unconditional grants to municipalities. The intention of the unconditional grants was to enable municipalities to establish stabilization funds, to finance new capital expenditures, to cut taxes, or to meet current expenditure needs. In current dollars, that program involved an expenditure of about $2,700 million – roughly two years worth of Ralph Bucks! The City of Calgary received $254 million to retire debentures (an amount equal to about $680 million in today's dollars or about one-half of Calgary's current long-term debt) and a further $8.2 million (about $22 million in today's dollars).

The effects of the *Municipal Debt Reduction Act* on Calgary's debt are observed in the big dip in long-term debt in 1979 shown in Figure 5 above. Interestingly, this seemed to spark a rather rapid accumulation of debt in the five years following receipt of that gift. More analysis of that period is called for. The reaction of the City of Calgary might be a reason why the provincial government has not listed a re-visiting to this program amongst its list of things to do with the non-renewable resource wealth it is accumulating currently.

While debt elimination/reduction by the provincial government is certainly a big idea it is not one I would support. As Mintz and Roberts (2006) stress, involvement of more senior governments in municipal budgeting can distort municipal spending and taxation choices by lessening political accountability. What's more the evidence I presented above suggests, at least with respect to the City of Calgary, that it is not necessary.

So far I have identified a small idea that might have some small benefits (a provincially-funded *Municipal Sustainability Fund*) and a big idea that I would not support (provincially-funded debt buyout). To run the gamut of possibilities, I need a small idea that might have big (and

favourable) consequences. That small idea is to suggest to municipal politicians that they make use of their borrowing room to fund needed infrastructure. The evidence presented in Figure 6 suggests that there is considerable scope for at least one Alberta municipality to return to a policy common in the 1960s and 1970s; a policy of relying more heavily on issuing long-term debt to meet their infrastructure needs. It is a policy which is not only feasible, but one in which intergenerational equity is served.

5. Conclusion

Municipal finances have of late become important topics of concern for policy-makers. A good deal of concern has been expressed that municipalities have too limited a menu of revenue choices from which to choose and that this is constraining their ability to facilitate the proper functioning and growth of large cities. Solutions that have been bandied about include those which would require a role for the federal government in municipal affairs; a role not supported by the Canadian constitution. Clearly, very serious policy changes are being considered. Unfortunately, these very serious policy changes are being proposed in what is largely an information vacuum. Although a good deal of hand-wringing is done over the question of the sustainability of municipal finances, there is little in the way of hard evidence to support or deny the notion that municipalities have insufficient revenues to satisfy their expenditure responsibilities.

In this note I have presented and discussed some very preliminary evidence on the question of the fiscal sustainability of Alberta's large cities; Calgary and Edmonton. That evidence suggests that neither city is facing an issue of fiscal sustainability; both are capable of meeting their expenditure obligations both now and in the medium term, using only the revenue sources currently available to them.

It is worth repeating and stressing that these findings are preliminary and that more work needs to be done investigating this important issue. Certainly, more work needs to be done before policy-makers begin to consider changes to intergovernmental relations not prescribed by the constitution.

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