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PROVINCIAL TRANSFERS AND FINANCING MUNICIPAL INFRASTRUCTURE IN ALBERTA

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We have benefited from the comments of two anonymous referees and Alberta Municipalities and Alberta Municipal Affairs officials, but we are solely responsible for the analysis and conclusion expressed in this paper. A more detailed version of this paper will be available online.

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EXECUTIVE SUMMARY

Concern and uncertainty about municipal finances surround the government of Alberta's plans to transition the Municipal Sustainability Initiative program to the Local Government Fiscal Framework. A close examination of provincial capital transfers and grants to municipalities shows that capital transfers are not allocated based on municipal capital purchases and grants seem to favour municipalities with higher-than-standard fiscal capacities. The allocation of funds is disproportionate and there is a definite need to restructure provincial transfers to municipalities.

The current allocation formula is rather complicated and flawed. A major determinant of a municipality's grant is its share of the provincial education property tax. This provision therefore provides higher grants to municipalities with often much larger tax bases. It also contains a clause for allocation based on how much road a municipality contains but does not account for road type — paved, gravel or dirt — which makes a big difference in infrastructure costs.

The proposed new system includes providing matching grants for infrastructure spending, such as roads and water treatment. These types of grants not only benefit the municipality, but also non-resident users and the provincial government. As spending on roads increases, so does the movement of people and products, which increases economic activity and tax revenues.

Another proposed change is providing grants to municipalities that have lower property tax bases. Non-residential property taxes are almost always much higher than residential property taxes. Municipalities with larger numbers of non-residential properties have a higher property tax base, which allows them to lower residential and farm property taxes and provide additional services. Those with mainly residential properties don't have this same capacity, leaving them with higher residential property taxes and fewer services. These municipalities would benefit greatly from a top-up grant to help cover the costs of municipal services.

To fund the provincial transfers, the province could stop calling the provincial property tax an education tax. In 2019, Alberta collected $2.484 billion in education taxes. The total provincial transfers were $2.143 billion. If Alberta reassigned this revenue to municipalities, it would have covered all provincial grants and still have left $341 million for property tax

reductions or tax room for municipalities. Property taxes should be used for local services and infrastructure, which in turn are reflected in property values. Education spending should come from general revenues, which it already essentially does, so that property taxes can be used for municipal services, for which it is better suited. This also has the added benefit of making provincial transfers more predictable and stable.

Provincial grants and transfers need to be restructured to more fairly and evenly distribute funds to the municipalities. This paper proposes several components to help resolve the problem, as well as a method for funding it.

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1. INTRODUCTION

Municipal finances and the provincial government support have been an ongoing public policy issue in Alberta.[1] These issues have recently become more prominent since the Alberta government announced plans to transition the Municipal Sustainability Initiative (MSI) program — which has represented about 60 per cent of provincial transfers to the municipalities — to the less well funded Local Government Fiscal Framework (LGFF).[2] This has created new uncertainties about municipal finances, especially in the context of provincial government fiscal restraint.

In this paper we examine trends in expenditures on municipal infrastructure in Alberta, and its financing with a particular focus on provincial transfers to municipalities. Provincial capital transfers have amounted to 70 per cent of total provincial transfers and make a substantial contribution to municipal capital purchases. Our review of provincial capital transfers indicates that capital transfers have not been closely related to municipal capital purchases. As well, the allocation of grants has tended to favour "have" municipalities with above average fiscal capacities, i.e., those with a large non-residential tax base.

In view of this perverse allocation of grants, we propose a new system of provincial transfers to municipalities with two components. One component would provide matching grants to municipalities for spending on infrastructure, such as roads and water treatment facilities, that directly benefit non-residents and that generate fiscal benefits for the provincial government from increases in economic activity and tax revenues. A second component would provide grants to municipalities with deficient property tax bases. We also propose a change in the way provincial transfers to municipalities are funded, whereby the province would stop earmarking the provincial property tax for education spending and instead use those revenues to fund municipal grants.

The paper is organized as follows. In Section 2, we provide a broad overview of trends in municipal infrastructure investment and government transfers to municipalities. Section 3 describes the municipalities' reliance on debt and financial assets to finance infrastructure spending, as well as a detailed analysis of the allocation of provincial transfers among the municipalities. Section 4 is an analysis of the disparities in the municipalities' fiscal capacities. Section 5 contains our proposal for reforming the allocation of provincial transfers to municipalities and how such transfers are funded. The final section is a summary of the main points in this report.

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[1] See for example, McMillan and Dahlby (2014), McMillan (2019), Dahlby and McMillan (2021) and Peterson (2021).

[2] See https://www.alberta.ca/municipal-sustainability-initiative.aspx for an overview of the MSI program and the LGFF that will replace it in 2024-25.

2. OVERVIEW OF MUNICIPAL INFRASTRUCTURE INVESTMENT

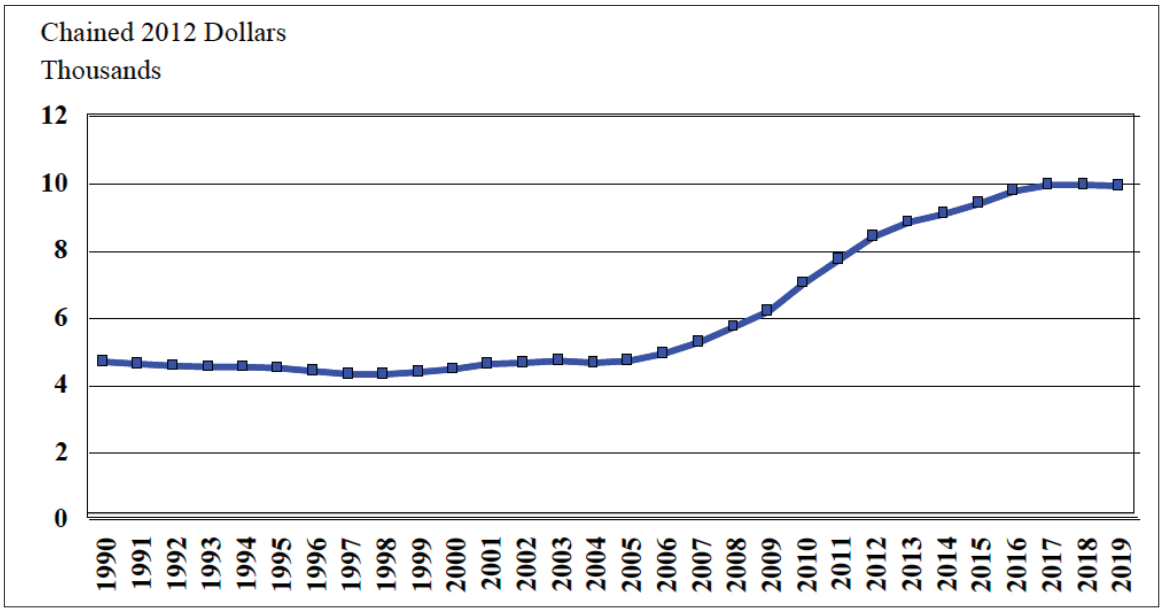
Municipal infrastructure is essential for local residents and businesses. In the past, municipal infrastructure has been equal to about one-half of the provincial government's net capital stock, but that share has grown since 2005 to essentially equal the provincial stock.[3] In this section, we provide some background on municipal infrastructure stocks, investment and finance.

2.1 MUNICIPAL NET CAPITAL STOCK AND INVESTMENT

Figure 1 shows per capita municipal net capital stock from 1990 to 2019 in 2012 dollars. From 1990 to 2005, it was relatively constant, averaging $4,500 per person. After 2005, the net capital stock per capita rose steadily to reach $9,931 in 2017 before levelling off at about $9,900. That is, in 2019, the real per capita stock was 2.2 times greater than before 2006. This growth in the net capital stock was the result of a large increase in investment during that period. See Figure 2. In 2012 dollars, municipal infrastructure investment averaged $407 per capita from 1991 to 1997. It then grew to $653 in 2001 before dropping back to $449 in 2004. Over the following eight years it rose sharply to $1,604 in 2012. Since then, it has declined to $1,051 in 2019.

It is also important to note that the net capital stock actually declined for eight consecutive years from 1991 to 1998. Notably, it declined again in 2018 and 2019 although per capita investment was $1,045. In contrast with the pre-2000 period, when a per capita investment of about $475 was adequate to maintain the municipal capital stock, an annual investment of about $1,075 is now required to maintain Alberta's currently larger municipal capital stock. Clearly, the almost doubling of the net capital stock demands more resources — municipal taxes and provincial transfers are required to maintain it.

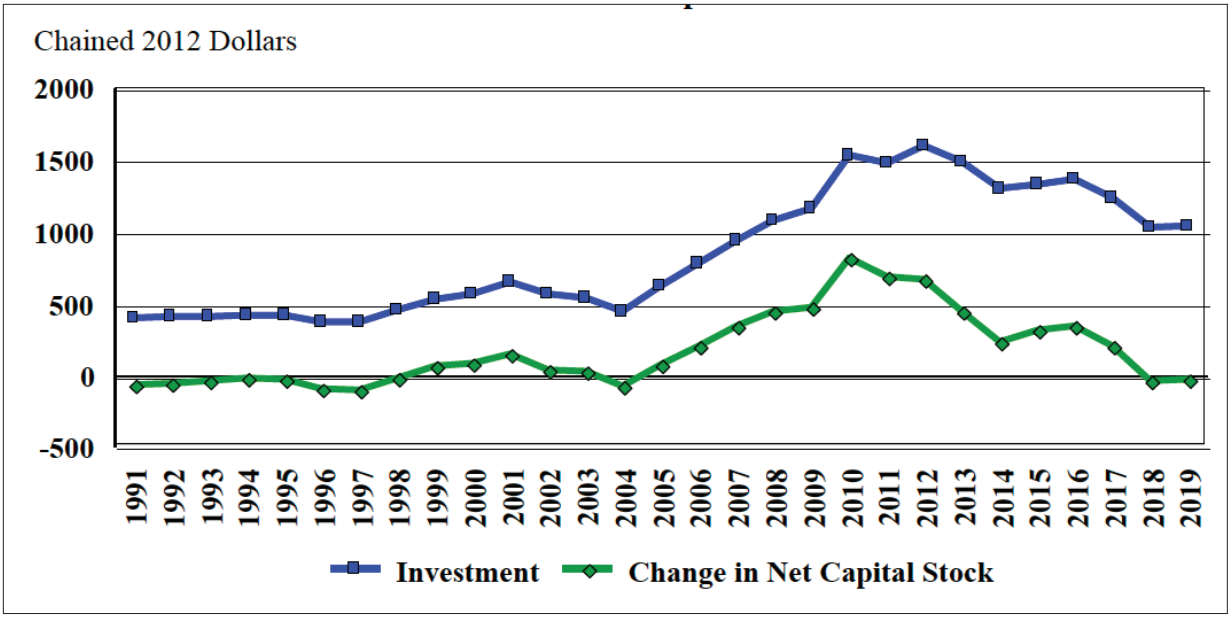
Figure 1. Real Net Capital Stock Per Capita of Alberta Municipalities



Source: Statistics Canada Tables 36-10-0096-01 and 17-10-0005-01

[3] See McMillan (2019, especially section 3) for a brief review extending back to 1961.

Figure 2. Real Per Capita Investment and Change in Net Capital Stock of Alberta Municipalities



Source: Statistics Canada Tables 36-0096-01 and 17-10-0005-01 Authors calculations.

2.2 GOVERNMENT TRANSFERS TO ALBERTA MUNICIPALITIES

As Figure 3 demonstrates, the contribution of federal and provincial transfers to funding municipal infrastructure has varied greatly since 1990.[4] Total transfers have declined relative to municipal investment from 1990 to the mid-2010s from 120 per cent to about 39 per cent, but with a small recovery to about 50 per cent from 2017 to 2019. An important trend has been the declining importance of non-capital transfers and the growing relative importance of capital transfers. As indicated in Figure 4, provincial capital transfers were about 30 per cent of total provincial transfers to municipalities in the early 1990s but increased to about the 75 per cent level where it has hovered since 2009. Real per capita provincial transfers were about $500 per person in the early 1990s, fell sharply to about $270 until 2005, and then were increased to about $500 again, although the amount declined to $437 in 2019.[5] Although real per person provincial government transfers have recently been about the same level as they were in the early 1990s, they have declined from about 20 per cent of municipal government revenues to about 13 per cent over the past five years.

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[4] Provincial grants represented 92 per cent of total grants over the last 30 years.

[5] Provincial transfers to Alberta municipalities have fluctuated widely since 2015-16 largely due to fiscal stabilization efforts. Between 2015-16 and 2019-20, they ranged from $1.16 to $3.22 billion and averaged $1.82 billion (76 per cent of which were for capital purposes).

Figure 3. Transfers as a Percentage of Municipal Investment

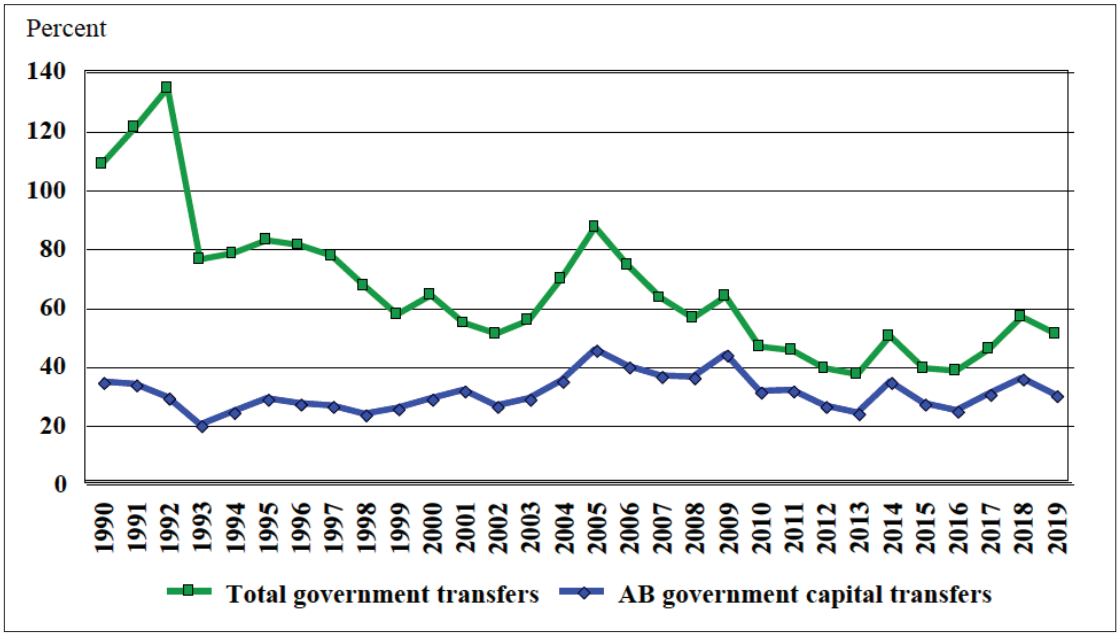
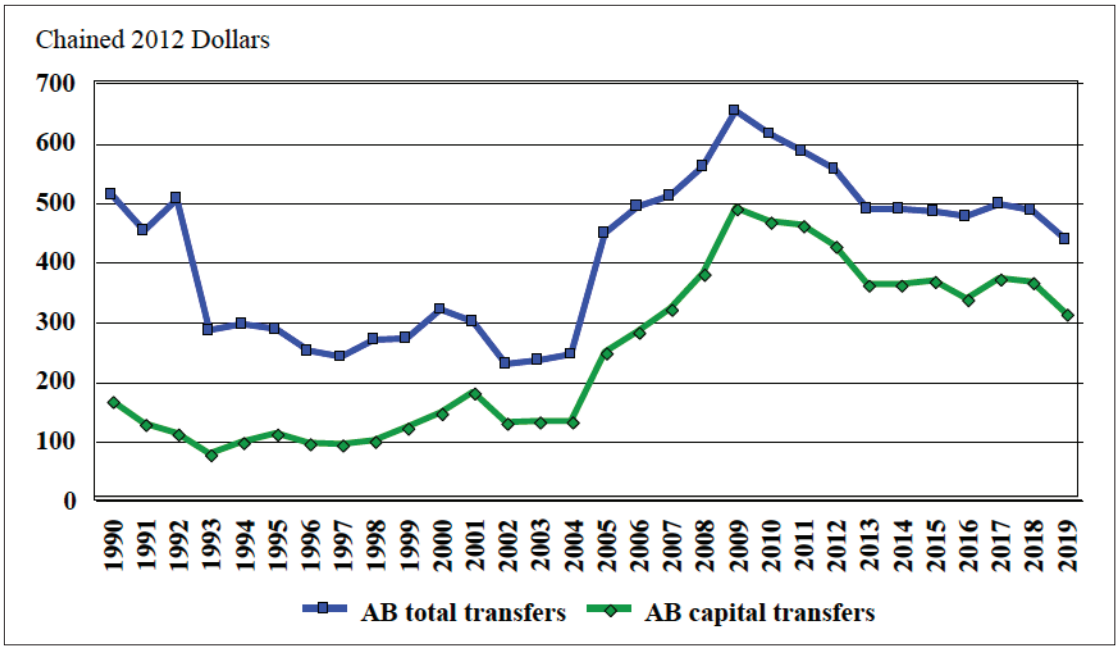


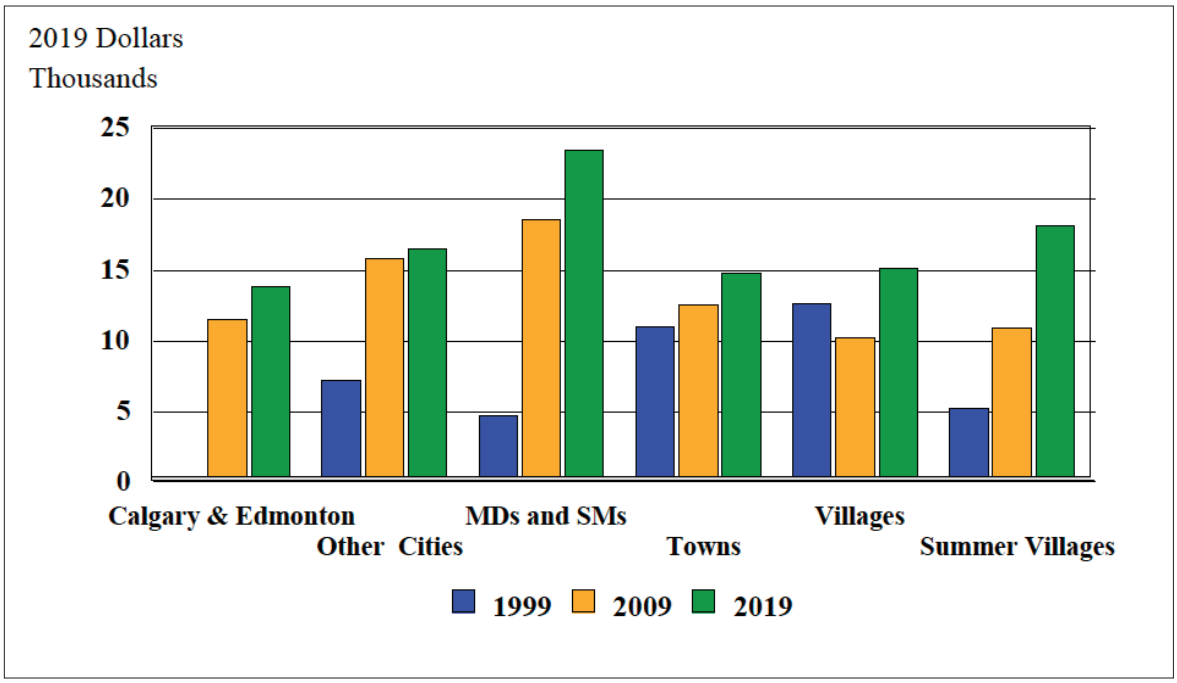
Figure 4. Real Per Capita Provincial Government Transfers to Municipalities



2.3 CAPITAL STOCKS, INVESTMENT AND TRANSFERS BY TYPE OF MUNICIPALITY

Have all types of Alberta's municipalities shown similar patterns of change over recent years? Figure 5 shows the average net capital assets in 2019 dollars per person for 1999, 2009 and 2019.[6] Net per capita capital assets increased between 1991 and 2019 for all municipality types, with especially large increases in the cities other than Calgary and Edmonton, municipal districts and specialized municipalities (MDs and SMs)[7] and the summer villages.[8] The increases were more modest for Edmonton and Calgary, towns and villages. The growth in net assets reflects substantial new investment. Figure 6 shows that the purchases of capital assets were greatest per capita in 2009 for all types of municipalities except for villages and the summer villages.

Figure 5. Average Real Per Capita Net Capital Assets



Source: Alberta Municipal Finance Data

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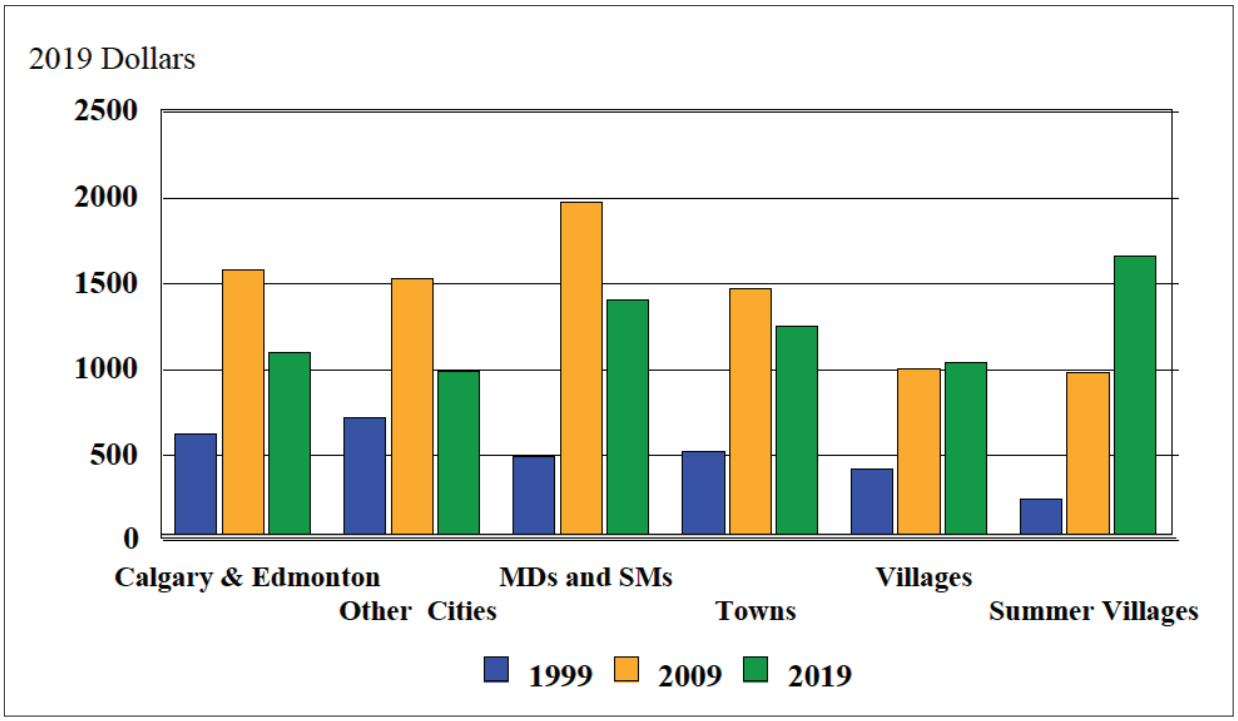
[6] Note that the per capita values for the summer villages must be viewed with caution as the calculation is made using permanent residents while the population served (and number of residences occupied) during the summer is typically much larger. In 2019, summer villages averaged 4.7 residences per permanently occupied dwelling.

[7] Municipal Affairs refers to the rural municipalities as municipal districts although some municipalities may call themselves counties.

[8] No 1999 figure is reported for Calgary and Edmonton because the Municipal Affairs data for Edmonton that year are suspiciously small.

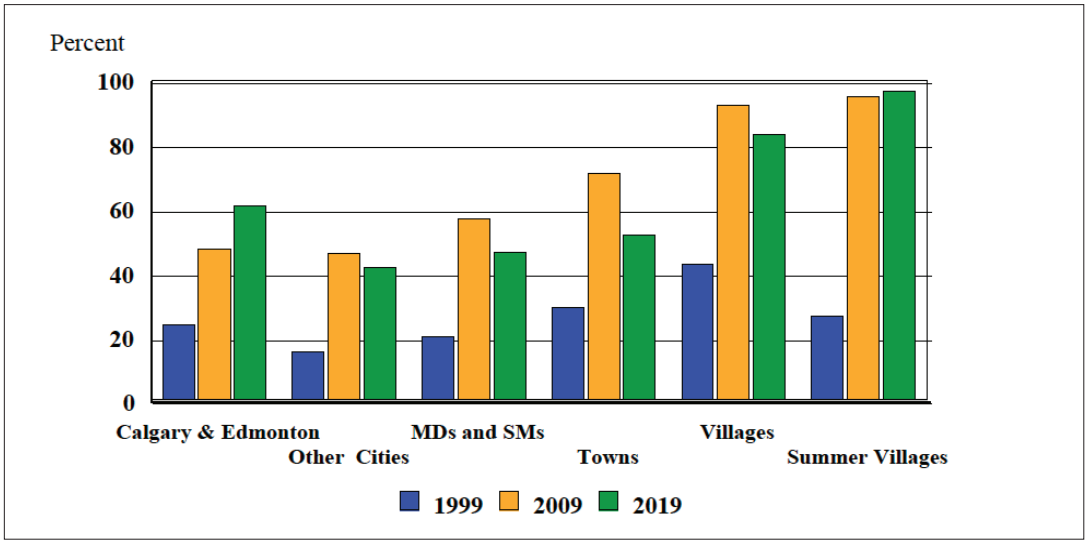
Figure 6. Average Real Per Capita Capital Assets Purchased



Source: Alberta Municipal Finance Data

Figure 7 shows that total operating and capital transfers as a percentage of capital purchases varied from 40 per cent to over 90 per cent across the municipal types. Villages and summer villages are the most reliant on transfers to fund capital spending. Also note that grants relative to capital purchases declined from 2009 to 2019 in all types of municipalities, except for Edmonton and Calgary and the summer villages.

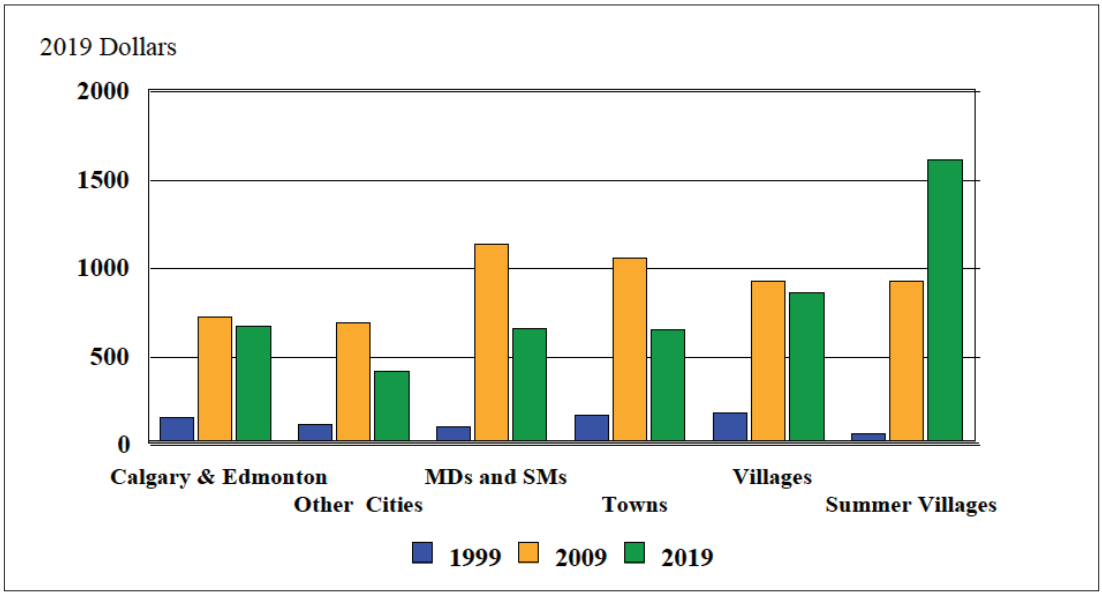
Figure 7. Federal and Provincial Transfers as a Percentage of Capital Purchased



Source: Alberta Municipal Finance Data

Figure 8 shows that there was a large increase in real per capita government transfers between 1999 and 2009 for all types of municipalities. The average per capita grant was lower in 2019 for all types except summer villages. The 2019 grants averaged between $409 and $854 per capita, excluding the summer villages, where they were $1,599.

Figure 8. Federal and Provincial Real Per Capita Transfers



Source: Alberta Municipal Finance Data

In summary, the past 30 years have seen substantial changes in municipal government infrastructure and its finance, especially so over the past 15 years. Real net capital assets per person increased across all municipal types, but most substantially for the other cities, municipal districts and specialized municipalities and summer villages. Municipalities now require more resources just to maintain the much larger per-person infrastructure. That is, investment for maintenance alone requires 50 to 60 per cent more of their revenues than was the case pre-2005. While transfers from senior governments assist municipalities in financing current and capital spending, the growth in capital grants came largely at the expense of non-capital grants. Even the growth in capital transfers has not kept pace with municipal investment. Combined with the lack of growth in other grants, total transfers have since 2013 provided a much reduced and relatively modest level of support for municipal governments. In real dollar per-person terms, provincial capital transfers have been on a downward trend since 2009.

3. FINANCING MUNICIPAL INFRASTRUCTURE

Municipalities can finance their purchases of capital assets from three main sources. They can borrow, draw upon their financial assets or use current year revenues, which include transfers and developer agreements and levies.[9] In this section we consider the degree to which municipalities use these three sources of funds, and especially transfers, to finance the expenditures on infrastructure. Table 1 shows the ratios of debt, financial assets from restricted funds and current revenues to municipalities' purchases of tangible capital assets in 2015, 2017 and 2019.

Table 1. Sources of Funds for Capital Purchases*

	Capital Debt	Restricted Funds	Current Year Revenues	Capital Debt	Restricted Funds	Current Year Revenues	Capital Debt	Restricted Funds	Current Year Revenues
	2015			2017			2019		
Cities	0.135	0.347	0.422	0.246	0.301	0.436	0.220	0.353	0.386
MDs and SMs	0.013	0.411	0.516	0.031	0.333	0.620	0.013	0.369	0.592
Towns	0.020	0.215	0.638	0.014	0.259	0.547	0.093	0.208	0.464
Villages	0.067	0.055	0.934	0.007	0.038	0.966	0.071	0.021	0.900
Summer Villages	0.000	0.027	0.971	0.000	0.006	0.994	0.000	0.136	0.864

* The ratios in the rows do not always sum to 1.0. This results from variation in the time of recording both the receipt of revenues and the payment of expenditures.

Current year funds, which as noted above include transfers from the federal and provincial governments and developer agreements and levies, are the most important source of funds for financing capital purchases and debt is the least important. Cities are the most reliant on debt, but in these years capital debt was less than 25 per cent of tangible capital asset purchases. The table also indicates that debt was not an important source of funds for the other types of municipalities, with more than 50 per cent of their capital funding from current year revenues, which includes transfers and development charges. Drawing on financial assets is an important source of capital financing for municipal districts and specialized municipalities. Villages and summer villages rely almost entirely on current revenues to finance their capital expenditures.

3.1 DEBT FINANCING

Municipalities can borrow to finance infrastructure investments, but they are constrained by limits established by Alberta Regulation 255/00 under the *Municipal Government Act*. The debt limit is 1.5 times, and the debt service limit is 0.25 times, a municipality's adjusted revenue, which is defined as total revenue less capital transfers from the federal and provincial governments and contributed or donated tangible capital assets if included in total revenues.[10]

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[9] In 2019, developer agreements and levies represented 1.7 per cent of cities' revenues. They were a negligible source of funds for the other types of municipalities.

[10] The debt limits for Calgary, Edmonton, Medicine Hat and the Regional Municipality of Wood Buffalo are two times the revenue of the municipality and their debt service limits are 0.35 times their revenue.

Table 2 shows the median ratios of debt levels to the debt limits and debt service levels to the debt service limits in 2019. Most municipalities' debt and debt service levels are well below the limits established by the provincial government. For cities, the median debt limit ratio was 0.372 and only five cities had ratios over 0.500, with Cold Lake having the highest ratio of 0.585. The median debt service limit ratio was 0.266, with only Beaumont having a relative high debt service limit ratio of 0.748. The median debt limit ratio was 0.255 for towns. Twenty-one of the 106 towns had debt limit ratios above 0.5. The Town of Raymond had the highest debt limit ratio of 0.865. The towns' debt service limit ratios were also generally low with only six towns with ratios above 0.5. Slave Lake was the only municipality with a debt service ratio over the limit. This is probably due to the debt incurred by rebuilding the town's infrastructure after the 2011 fire. Table 2 also indicates that the debt levels of the rural municipalities and villages are generally very low, which is consistent with the data in Table 1, which indicated that debt plays a very limited role in financing their spending on infrastructure. In fact, 18 rural municipalities and 36 villages report zero debt. Only the Village of Consort had a debt ratio over the limit. Overall, the data in Table 2 indicate that municipal debt and debt service level are well below the limits established by the provincial government except in a very few isolated cases.

Table 2. Median Ratios of Debt and Debt Service Levels to Limits in 2019

	Cities	MDs and SMs	Towns	Villages
Median Ratio of Debt Level to Debt Limit	0.372	0.090	0.255	0.022
Median Ratio of Debt Service Level to Debt Service Limit	0.266	0.090	0.204	0.037

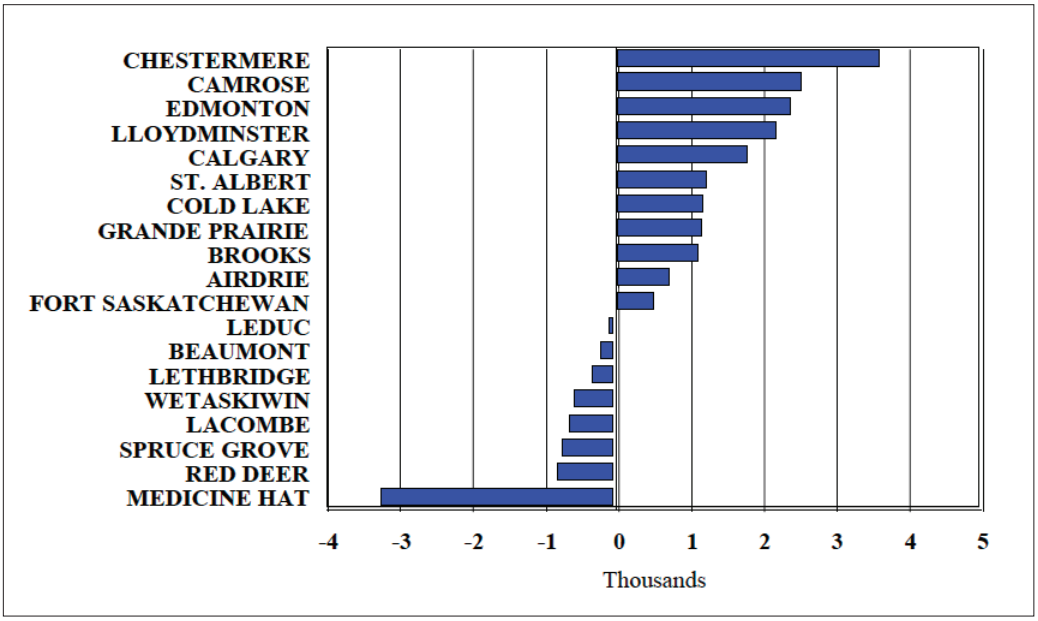
While Table 2 only provides a snapshot of municipalities' relative indebtedness in 2019, the municipal finance data indicate that there has been relatively little change in the debt limit ratios since 2009, with about half of the cities, rural municipalities and towns and only a quarter of the villages reporting increases in their debt limit ratios. The overall impression is that municipalities' debt burdens relative to their revenues have remained relatively constant over the last decade.

3.2 FINANCIAL ASSETS

Municipalities hold short-term financial assets to manage cash flow differences between the timing of the revenues and current operating expenditures. Some municipalities also hold long-term term financial assets to be used to finance future capital expenditures (such as roadways and water systems) and for contingencies such as a dramatic downturn in revenues or unanticipated current and capital expenditures. Figure 9 shows that there are large differences in the per capita net financial assets among the cities in 2019, with Chestermere having $3,657 per capita while Medicine Hat has a per capita net debt of $3,244[11]. Almost three-quarters of towns have positive net financial assets, with the Town of Spirit River having $6,250 per capita. On the other end of the spectrum, Slave Lake has a net debt of $2,650.

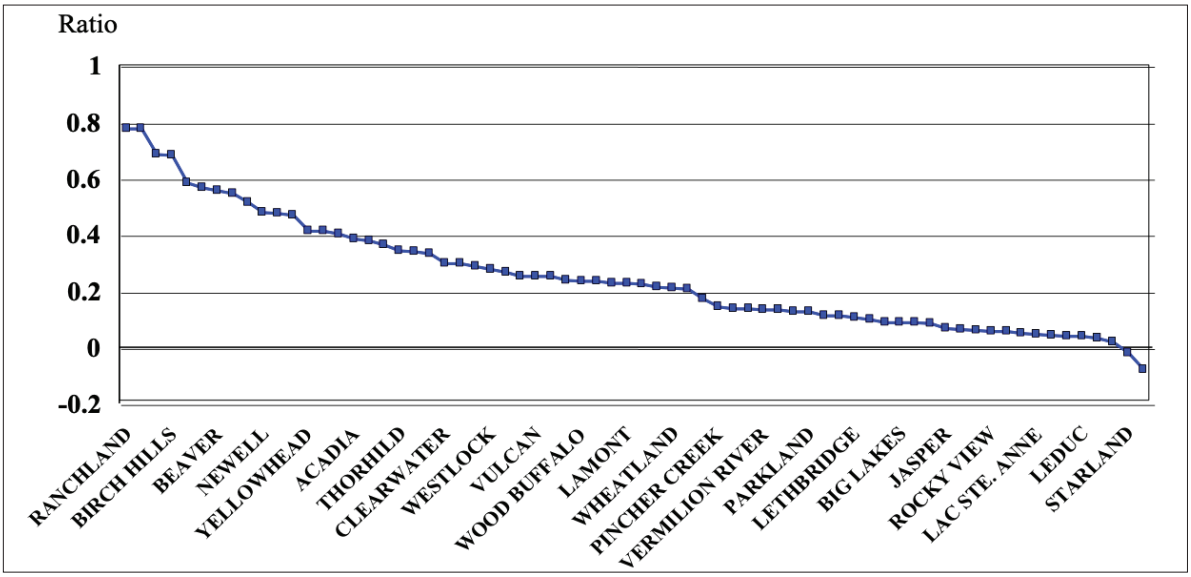
[11] Medicine Hat's high debt level may be due to its ownership of a natural gas utility which is consolidated in its municipal operations

Figure 9. Cities Per Capita Net Financial Assets (Net Debt) in 2019



The situation is quite different for the municipal districts and specialized municipalities, with half of these municipalities recording net financial assets of more than $4,000 per capita and 14 having more than $10,000 per capita. Only two, Starland County and Woodland County, have a net debt. Many municipal districts and specialized municipalities have financial reserves that are large relative to their needs for financing new and replacement capital assets. Figure 10 shows the ratio of net financial assets to tangible capital assets for 68 municipal districts and specialized municipalities in 2019. (Space permits only about one-third of the names to appear, but 68 municipalities are included in the data presented). Thirty-eight municipal districts and specialized municipalities have net financial assets that are more than 20 per cent of their tangible capital assets.

Figure 10. Ratio of Net Financial Assets to Tangible Capital Assets for Municipal Districts and Specialized Municipalities in 2019



In the next section, we analyze in more detail the most important source of funding for municipal capital expenditures — provincial and federal capital transfers.

3.3 TRANSFERS TO MUNICIPALITIES

In this section, we provide a more detailed look at federal and provincial transfers to Alberta's municipalities. Table 3 presents data on 20 municipal transfer programs in 2019-20.[12] The MSI-Capital Funding program was the largest transfer at $639.2 million and represented 40.3 per cent of total transfers to municipalities. Other provincial capital transfers included the Green Transit Incentives, Water for Life and Albert Community Resiliency program. The Federal Gas Tax Fund, which is now called the Canada Community-Building Fund, also funded capital spending by municipalities and was the second largest program at $471.9 million. It is allocated among the municipalities on a per capita basis, with a minimum allocation of $50,000 per year except for summer villages, which receive $5,000 per year plus the per capita amount (Alberta CCBF n.d.). Total municipal capital transfers by the federal and provincial governments amounted to $1.282 billion in 2019-20 and represented 80.8 per cent of total capital and operating transfers to municipalities.

Table 3. Transfers to Municipalities in 2019-20

Program	Type	Total Transfers	Percentage
Municipal Sustainability Initiative - Capital Funding	Provincial Capital Grant	639,191,126	40.29%
Federal Gas Tax Fund	Federal Capital Grant	471,873,741	29.74%
Family and Community Support Services Program	Provincial Operating Grant	99,533,654	6.27%
Green Transit Incentives Program	Provincial Capital Grant	80,495,915	5.07%
Municipal Policing Assistance Grant	Provincial Operating Grant	58,207,926	3.67%
Grants in Place of Taxes	Provincial Operating Grant	41,668,946	2.63%
Disaster Recovery Program	Federal Capital and Operating Grant	32,250,936	2.03%
Police Officers Grant Program	Provincial Operating Grant	30,000,000	1.89%
Municipal Sustainability Initiative - Conditional Operating Funding	Provincial Operating Grant	28,909,112	1.82%
Water for Life	Provincial Capital Grant	28,804,499	1.82%
Alberta Community Resiliency Program	Provincial Capital Grant	21,467,762	1.35%
911 Grant Program	Provincial Operating Grant	15,637,751	0.99%
Agricultural Service Board Grant Program	Provincial Operating Grant	12,588,635	0.79%
Alberta Community Partnership	Provincial Operating Grant	11,411,524	0.72%
Small Communities Fund	Federal-Provincial Capital Grant	8,520,645	0.54%
Summer Temporary Employment Program	Provincial Operating Grant	1,999,458	0.13%
Community and Regional Economic Support	Provincial Operating Grant	1,588,319	0.10%
Watershed Resiliency and Restoration Program	Provincial Operating Grant	1,354,000	0.09%
All Hazards Incident Management Team Program	Provincial Operating Grant	650,000	0.04%
Fire Services Training Program	Provincial Operating Grant	458,607	0.03%
Transfers to 341 municipalities in 2019-20			
	Total Provincial	1,073,967,234	67.69%
	Total Federal	504,124,677	31.77%
	Total Federal-Provincial	8,520,645	0.54%
	Total	1,586,612,556	100.00%

[12] It should be noted that 2019-20 was a rather exceptional year with MSI capital grants the second lowest in the previous four years and the Federal Gas Tax Fund grant was twice its typical annual amount. Thus, the 2019 data overstate the federal contribution and understate the provincial transfers.

As noted above, the Municipal Sustainability Initiative (MSI) is the largest capital transfer program.[13] It was introduced in 2007 and is intended to provide support for infrastructure investment in roads, water and wastewater infrastructure, public transportation, recreational facilities, firehalls and libraries. Municipalities have significant flexibility in using these funds for capital projects. The current MSI program is due to be replaced in 2024-25 with a revised program based on the *Local Government Fiscal Framework Act* of 2019. Except for Calgary and Edmonton, the Alberta government has not yet released the criteria for allocating grants among municipalities under the new program.

3.3.1 The Allocation of Provincial Transfers

The current allocation formula, which is described in Box 1, is complex in part because the Basic Municipal Transportation Grant (BMTG) and several other programs were consolidated with their existing allocation formulas into the MSI program. The current formula clearly reflects a desire to provide more per capita funding to smaller municipalities and there are special provisions for Calgary and Edmonton and other types of municipalities. An important and controversial aspect of the formula is the provision that allocates grants based on the municipalities' shares of the total provincial education property tax requisitions. Since the share of provincial education tax revenues collected in a municipality is directly related to its share of total property tax assessments, this provision provides larger grants to municipalities with larger property tax bases. In other words, municipalities with greater fiscal capacity, as measured by their property tax bases, tend to receive larger capital transfers. Another feature of the formula is an allocation based on a municipality's share of the overall length of roads in the province without considering the type of road, i.e., dirt, gravel or paved.

Given the complexity and opacity of the MSI allocation formula, it is important to gain some insights into the factors that determine the distribution of capital transfers among the municipalities. A more detailed version of the paper, which is available online, contains the results of econometric models of the factors that affect the per capita MSI capital transfer in 2019-20 for each of the four types of municipalities. As expected, the econometric models indicate that municipalities with small populations received higher per capita transfers. Per capita transfers were significantly higher for municipal districts and specialized municipalities with higher per capita equalized property tax assessments. This is not surprising given that a large share of the transfer is based on municipalities' shares of the education property tax requisition. Finally, the econometric models indicated that per capita transfers were higher in municipalities with more kilometres of roads, but the coefficient was only statistically significant for municipal districts and specialized municipalities and towns.

[13] This section is based on information provided by Alberta Municipal Affairs.

Box 1

The MSI Allocation Formula

1. Calculate total MSI allocations (capital plus operating).
   a. Set aside $9 million for sustainable investment. This is allocated later as part of MSI Operating.
   b. Allocate base funding to all municipalities ($120,000 for most municipalities, $60,000 for summer villages).
   c. The remaining funding is divided into three components:
      i. 48 per cent of the funding is allocated to each municipality according to its share of the overall population.
      ii. 48 per cent of the funding is allocated to each municipality according to its share of the overall education tax requisition.
      iii. Four per cent of the funding is allocated to each municipality according to its share of the overall length of roads in the province.
2. Calculate MSI Operating allocations for municipalities other than Calgary and Edmonton.
   a. Allocate base operating funding ($10,000 for most municipalities, $5,000 for most summer villages. Municipalities with fewer than 100 people get a prorated amount based on their population).
   b. Allocate the remaining operating funding based on shares of total MSI funding.
   c. Allocate the $9 million for sustainable investment.
      i. $6.3 million is allocated to urban municipalities with fewer than 10,000 people and less than 60 per cent of the average equalized assessment per capita among urban municipalities.
      ii. $2.7 million is allocated to rural municipalities with fewer than 10,000 people and less than 60 per cent of the average equalized assessment per kilometre of road among rural municipalities.
   d. Subtract $91 million from Calgary's allocation and $61 million from Edmonton's allocation.
3. Calculate BMTG allocations.
   a. Calgary and Edmonton receive allocations based on provincial sales of taxable road-use gasoline and diesel ($0.011825 and $0.009675 per litre, respectively).
   b. Other cities receive $60 per capita, plus $1,959 per kilometre of primary highway under the city's jurisdiction and within the city's boundaries.
   c. Other urban municipalities with more than 300 people receive $60 per capita, and smaller urban municipalities receive an $8,000 base amount plus $33.33 per capita.
   d. Rural municipalities receive a fixed amount based on the former Rural Transportation Grant, plus $60 per capita for eligible hamlets.
   e. Métis settlements receive $60 per capita, plus a fixed amount based on the former Rural Transportation Grant.
4. For each municipality, subtract the operating allocation from the total allocation, then add the BMTG allocation. The result is the MSI capital allocation.

Source: Alberta Municipal Affairs

3.3.2 Capital Transfers and Capital Purchases

Capital purchases by the 332 municipalities averaged $4.787 billion annually over the five years 2015 to 2019. Provincial capital transfers averaged $1.396 billion annually to those municipalities. Hence, capital transfers funded 29.2 per cent of municipal capital outlays. As shown in the last column of Table 4, average per capita capital transfers were $333 and average capital purchases were $1,141. The range of per capita transfers across municipalities is huge — from $191 to $9,927 — as is the range of per capita purchases — from $38 to $20,645.

Across the groups of municipalities, per capita transfers ranged from $248 for the cities to $1,697 for the summer-villages.[14] Average capital purchases ranged between $972 and $2,127 with the two largest being the municipal districts and specialized municipalities and the summer villages, and the two lowest being the cities and towns. Capital transfers as a percentage of capital purchases ranged from 25.5 per cent for the cities to 79.8 per cent for the summer villages. Also indicated in the note to Table 4, while capital transfers amount to 29.2 per cent of capital purchases, the typical municipality receives a transfer amounting to essentially one-half of its capital purchases. However, some municipalities received transfers as little as 8.5 per cent of purchases while one received provincial capital transfers that were three times its capital purchases. (This can occur because municipalities can bank capital transfers for up to five years, they may not recognize grant revenue until the associated conditions have been met and some capital purchases may not qualify for grant support). Furthermore, there were wide variations in the ratio of capital transfers to capital purchases within each type of municipality. It is lowest across the cities where the transfers ranged from 9.5 per cent to 58.4 per cent of capital purchases. In all the other types of municipalities, there are very large ranges of up to 300 per cent.[15] Overall, the disparities in the relative contributions of the provincial capital grants are ubiquitous — they exist in each municipal class, and they are large in each as well as overall.

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[14] Caution is warranted in considering the summer village numbers since the numbers may represent revenues and expenditures made on behalf of those who are not permanent residents.

[15] There are some discrepancies between the Municipal Financial and Statistical Data reports and the provincial Municipal Affairs data arising from accounting practices, banking of transfers and fully meeting grant conditions.

Table 4. Average Per Capita Capital Transfers and Capital Purchases, 2015 to 2019.

	Cities	Municipal Districts and Specialized Municipalities	Towns	Villages	Summer Villages	All Municipalities
Capital Transfers	248	641	346	742	1,697	333
(min/max)	196/339	229/3394	191/1491	250/9927	381/7890	191/9927
Capital Purchases	972	1,839	1,026	1,367	2,127	1,141
(min/max)	387/2675	465/7985	191/5632	245/20645	38/11724	38/20645
Capital Transfers as a % of Capital Purchases	25.5	34.9	33.7	54.3	79.8	49.1[a]
(min/max	9.5/58.4	10.9/226	8.5/223	10.7/303	14.9/694[b]	8.5/694[b]

[a] This figure is not based on the ratio of average capital transfers to average capital purchases, 29.2 per cent, but is based on the average of the per capita share of transfers to purchases over the 332 municipalities, which is $712 and $1,450 and demonstrates the impact of larger per capita grants to small-population municipalities. Specifically, 81 municipalities received transfers amounting to less than 29.2 per cent of their capital purchases while 251 received transfers over 29.2 per cent. The municipalities for which transfers represent a larger share of purchases tend to have smaller populations and receive smaller total amounts.

[b] Maximum with three observations exceeding 1,000 per cent excluded.

Source: Capital transfers from the Municipal Grant Funding file, 2010 to 2020, provided by Alberta Municipal Affairs. Capital purchases are those reported in Column 03120 of Schedule F of the Municipal Statistics. Calculations by the authors.

The preceding analysis raises some doubts about the merits of Alberta's program of capital transfers to its municipalities. While some variation in the contribution rates might be expected, perhaps due to the type of capital project to be funded, one might reasonably expect that transfers funding capital projects would tend to provide more uniform percentages of expenditures on capital projects in all municipalities or, at least, to those in a given type of municipality. Furthermore, when some municipalities receive transfers exceeding the level of capital purchases, one questions the logic of transfers to support capital projects. Finally, the fact that capital transfers amount to about one-half the cost of capital purchases to an average municipality while non-capital or operating expenditures receive little or no support from the province poses the question of a distorting influence. When capital outlays cost municipalities, on average, 50 cents on the dollar but non-capital outlays cost dollar per dollar, one expects that there is a bias towards capital undertakings and/or capital biased means of production.[16] This imbalance between transfers for capital and for operating and maintenance outlays, especially if each involves spillovers, as can be expected especially in the case of roads, policing and environment, can lead to a less than ideal and efficient choice of production methods and distribution of expenditures and services.

[16] For example, see the discussion in Martinez-Vazquez and Timofeev (2012).

4. MUNICIPAL FISCAL CAPACITIES AND FISCAL PRESSURES

In light of the anomalous distribution of capital grants among Alberta municipalities, it is valuable to examine the fiscal capacities of municipalities and the relationships between fiscal capacities and indicators of fiscal pressures, namely the effective property tax rates, per capita property taxes paid by residents and property tax burdens relative to incomes.

4.1 THE PROPERTY TAX BASE

The amounts of taxable property per person differ substantially among Alberta municipalities. Table 5 shows that average total equalized assessments per capita differ considerably for the four major types of municipalities in 2019. The municipal districts and specialized municipalities stand out at the high end at $436,149 per capita. The urban classes are much lower and especially the villages with a total of $82,939 per person. Even the level in the cities is only 36 per cent of that in the municipal districts and specialized municipalities. The disparities within each type of municipality are also strikingly large, with the differences between the minimum and the maximum being especially large for the municipal districts and specialized municipalities, where the largest is more than 13 times the lowest. Across all four types of municipalities, the maximum per capita total assessment is 51 times the minimum.

Table 5. Per Capita Total and Non-Residential Equalized Assessment in 2019

	Total			Non-Residential		
	Average	**Maximum**	**Minimum**	**Average**	**Maximum**	**Minimum**
Cities	156,998	236,372	96,843	36,352	103,870	8,382
MDs and SMs	436,149	1,895,835	142,795	289,300	1,665,913	25,251
Towns	123,084	489,650	53,909	27,418	129,265	3,943
Villages	82,939	184,334	36,608	14,356	68,077	1,685
All[a]	190,975	1,895,835	36,608	88.330	1,665,913	1,685

[a] Excludes summer villages.

Source: Schedule EA of Municipal Financial and Statistical Data reports

Non-residential property is the primary determinant of the differences in total per capita assessments. Table 5 indicates that municipal districts and specialized municipalities had the highest average per capita non-residential tax base at $289,300.[17] Among the urban municipalities, the cities have the highest at $36,352 and the villages the lowest at $14,356 per person. Again, the disparities within each type of municipality are also large. Even within the cities, where the ratio of maximum to minimum is lowest, the maximum is 12.4 times the lowest. In the case of the municipal districts and specialized municipalities,

[17] Non-residential assessment/non-farm assessment is calculated as total equalized assessment less residential and farm equalized assessment. That includes linear, machinery and equipment, other non-residential, railway and co-generation. Farmland is not included in the non-residential because it is assessed at a regulated rate that is much below market values. Farmland assessment is only material in the municipal districts and specialized municipalities class where it averages 14.5 per cent of the residential plus farm assessment (with a range from zero to 54.7 per cent). In the urban classes, farm assessments average less than 0.1 per cent of the residential plus farm and, in only one municipality, did it (at 1.09) exceed one per cent.

that ratio is 65.5. The importance of the non-residential tax base for municipal property taxes is shown in the next section.

4.2 MUNICIPAL PROPERTY TAXES AND TAX BURDENS

There are various ways to look at the levels of property taxes and the burdens that they impose upon property taxpayers. Three measures of the property tax burden are considered here — the effective property tax rates on residential property, the dollar amounts that residential taxpayers pay and the burden of the property taxes relative to income.[18]

Table 6 reports effective municipal residential tax rates by type of municipality. The effective rates are municipal residential property taxes as a percentage of residential equalized assessments. The average effective rate is lowest for the municipal districts and specialized municipalities at 0.568 per cent. The average rates in the urban municipalities range from 0.732 in the cities to 1.206 in the villages. The distribution of the effective rates is large. The ratio of the maximum to the minimum is relatively modest at 2.9 for the cities but is about 15 for the municipal districts and specialized municipalities and the towns and 9.6 for the villages. Across all the municipalities, the maximum is 26.9 times the minimum rate.

Table 6. Effective Tax Rates and Per Capita Taxes on Residential Property in 2019

	Effective Tax Rates[b]			Per Capita Taxes[c]		
	Average	Maximum	Minimum	Average	Maximum	Minimum
Cities	0.732	1.132	0.394	846	1,295	606
MDs and SMs	0.568	1.511	0.101	617	1,140	137
Towns	0.883	1.752	0.114	771	1,456	136
Villages	1.206	2.715	0.283	757	1,497	395
All[a]	0.891	2.715	0.101	742	1,497	136

[a] Excludes summer villages.

[b] Property taxes as a percentage of equalized assessments. For MDs and SMs, effective tax rates were calculated as residential and farms taxes as a percentage of equalized assessments.

[c] Municipal residential property taxes for all classes including MDs and SMs.

Various factors contribute to variations in effective tax rates. A major determinant is the level of equalized non-residential assessments. Typically, municipal governments tax non-residential property more heavily than residential or farm property. Where that occurs, the non-residential share of municipal property taxes will exceed the non-residential share of equalized assessments. In 2019, the ratio of the non-residential tax share to the non-residential assessment share averaged 1.47 for the cities and about 1.35 for the other three types of municipalities. Very few municipalities had a ratio less than 1.0.

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[18] For the municipal districts and specialized municipalities, residential and farm property taxes are used in the calculation of effective rates. The reason for this is that we ultimately wish to compare tax rates paid by municipal residents to the level of non-residential assessments and efforts to calculate a residential-only rate for the municipal districts and specialized municipalities led to a number of peculiar results. Despite using residential and farm taxes and assessments for the municipal districts and specialized municipalities, two of those still had to be omitted due to anomalies.

Large amounts of non-residential assessment enable municipal governments to subsidize the residential and farm taxpayers in the form of additional services and/or lower residential/farm taxes. It is difficult to measure service benefits, but the impact on residential/farm tax rates is easier to observe. Senkiw (2006) found that linear property, which includes pipelines and transmission lines, reduced residential and farm property taxes based on Alberta municipal data from 1991, 1996 and 2001. Also, Conger and Dahlby (2015) found that a higher per capita machinery and equipment assessment was associated with lower residential and non-residential property tax rates in cross-section regressions on 2013 data for 69 rural municipalities.

Table 6 also indicates that per capita residential property taxes are reasonably similar across the four types of municipalities, but there are large variations within each type.[19] The average property tax, at $846 per capita, is largest for the cities and, at $617 per capita, lowest for the municipal districts and specialized municipalities. The towns and villages are similar in average tax at about $765 per capita. The variation in the per capita taxes within each municipality type is typically large. The range is lowest for the cities where the minimum at $606 is only somewhat less than half of the maximum at $1,295. Across the other classes, the lowest goes from about one-tenth to about one-quarter of the maximum.

The burden of the property tax — that is, residential property taxes as percentage of income — is also a measure of fiscal pressures. Table 7 shows the all-family median income for 2019 by type of municipality. The cities have the highest average at $109,303 followed by the towns at $98,779. The municipal districts and specialized municipalities are next at $91,778, which is close to the average for Alberta municipalities. Villages have the lowest average family income. There is a wide range of incomes within each type of municipality, but especially so for the towns and the municipal districts and specialized municipalities.[20]

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[19] The taxes for the municipal districts and specialized municipalities here are those on residential property only (i.e., not residential and farm). Because of anomalies in the data, the MDs of Pincher Creek and Ranchland are excluded.

[20] The municipal districts and specialized municipalities have one municipality with what appears to be a surprisingly low median family income of $40,317 while the next lowest was $56,331.

Table 7. Median All-Family Incomes and Residential Property Taxes as a Percentage of Median Incomes

	Median All-Family Incomes[b]			Percentage of Incomes[c]		
	Average	Maximum	Minimum	Average	Maximum	Minimum
Cities	109,303	134,030	85,290	2.42	3.07	1.68
MDs and SMs	91,778	175,401	40,317	2.16	5.551	0.38
Towns	98,744	202,940	64,830	2.46	5.41	0.45
Villages	87,210	124,990	60,157	2.81	7.21	1.41
All[a]	91,502	202,940	40,317	2.49	7.21	0.38

Source: Alberta Regional Dashboard at https://regionaldashboard.alberta.ca/#/.

Notes: Median incomes are not reported for small municipalities. It is assumed that there is the Alberta average of 3.1 persons in each family. Municipal residential taxes are as a percentage of per capita incomes, except for the MDs and SMs where it is residential and farm property taxes.

[a] Excludes summer villages.

[b] Median incomes are not reported for small municipalities.

[c] Average taxes per family are calculated as the per capita tax times 3.1 where 3.1 is the Alberta average of the number of persons per family.

[d] Municipal residential taxes are as a percentage of family incomes, except for the MDs and SMs where residential and farm property taxes are used.

Municipal residential property taxes as a percentage of municipal median all-family income are also reported in Table 7.[21] The average property tax burdens are relatively comparable across the four types of municipalities, with municipal districts and specialized municipalities having the lowest at 2.16 per cent and villages the highest at 2.81 per cent. The range between the minimum and maximum tax burdens within each type is large, but especially so for the municipal districts and specialized municipalities and for the towns. Even for the cities, the maximum is 83 per cent larger than the minimum.

In summary, per capita property tax bases differ dramatically across municipalities and within each type of municipality. The non-residential bases are the main determinant of differences in the per capita tax bases. The municipal districts and specialized municipalities stand out with an average per capita non-residential assessment almost eight times that of the cities. Also, the non-residential tax base accounts for 66.3 per cent of the total average tax base of the municipal districts and specialized municipalities, but less than one-quarter of those of the urban municipalities. Municipal residential effective tax rates, residential property taxes per capita and the residential property taxes as a percentage of income are on average lower in the municipal districts and specialized municipalities than in the urban municipalities. However, the disparities within each type of municipality are large and notably so for the municipal districts and specialized municipalities. Other than for the villages, larger per capita non-residential assessments were associated with property tax advantages for local residents, especially among the municipal districts and specialized municipalities.

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[21] Municipal residential property taxes are used for cities, towns and villages. However, municipal residential and farm property taxes are used for the municipal districts and specialized municipalities' calculations because calculation of residential-only property taxes resulted in numerous anomalies. Also, the family tax burden is calculated as the per capita tax times 3.1, which is the average family size in Alberta.

5. REFORMING PROVINCIAL CAPITAL TRANSFERS TO MUNICIPALITIES

Municipal infrastructure improves labour productivity and contributes to the quality-of-life of Albertans. Like other levels of government, municipalities can finance their infrastructure spending by increasing current taxes or by borrowing to spread the tax burden over several years. Given the municipalities' tax powers and borrowing capacities, why should the provincial government help fund municipal infrastructure spending through transfers?

The main rationales for provincial capital transfers are benefit externalities and differences in the municipalities' fiscal capacities. Benefit externalities arise when a municipality's infrastructure spending improves the well-being of individuals in the rest of the province. For example, a municipality's expenditures on transportation facilities can improve the movement of people and products in an area that extends beyond a municipality's boundaries. Such productivity improvements can increase the incomes of the residents in other municipalities and increase federal and provincial income tax revenues. Differences in fiscal capacity arise because of differences in per capita tax bases across municipalities. Accordingly, a provincial capital transfer program should incentivize municipalities to spend on infrastructure projects that generate significant positive externalities, and it should help to reduce the differences in the abilities of municipalities to provide basic infrastructure for their residents. These two components of a revised provincial capital transfer program are discussed below.

Three issues need to be addressed in designing a capital transfer program: the allocation of the transfer, the amount of the transfer and the funding source for the transfer. We will deal with each of these issues in turn.

5.1 ALLOCATING PROVINCIAL CAPITAL TRANSFERS

The criteria for allocating provincial capital transfers should be based on the rationales for such transfers, namely benefit spillover from municipal infrastructure and differences in the municipalities' capacity to fund basic infrastructure from their property tax base. It follows that the allocation formulas should combine these two elements — one that incentivizes municipalities for their spending on infrastructure that benefits non-residents and one that supplements the financial resources of those municipalities with deficient property tax bases. We will consider in general terms how each of these components could be structured in a re-designed capital transfer program in Alberta

It should be noted that our proposed reforms would only apply to cities, towns, villages, municipal districts and specialized municipalities. Summer villages, special areas and improvement districts require separate capital transfer programs, given their unique characteristics. In this section, our reference to municipalities only refers to the subset of municipalities noted above.

5.1.1 Matching Capital Grants

First, the municipal infrastructure that generates significant benefit spillovers needs to be identified. Although all municipal infrastructure may provide benefit spillovers to some degree, the most significant benefit externalities are probably for transportation infrastructure and water and waste management infrastructure. A detailed analysis of the extent to which these municipal facilities generate external benefits is beyond the scope of this report, but for concreteness we consider how municipal capital expenditures on roads and water treatment could be addressed under a revised capital transfer allocation formula.

The degree of support for municipal infrastructure spending should be based on the extent of the direct benefit spillovers to non-residents and the fiscal benefits that accrue to the provincial government from the increase in economic activity that such facilities provide. An expanded version of this paper, which will be available online, contains an appendix which provides a framework for determining the optimal matching grants rate for infrastructure that generates benefit spillovers. Based on a numerical example in that appendix, a 35 per cent matching grant for municipalities' capital expenditures on roads might be appropriate given the benefit spillovers from roads. In 2019, municipalities spent $1.430 billion on roads. A transfer equal to 35 per cent of the municipalities' expenditures on roads in 2019 would have equalled $500 million, which is less than the actual provincial capital transfer for roads, $594 million.[22] Similarly, a capital transfer equal to 15 per cent of municipal capital expenditures on wastewater treatment and disposal would have resulted in a capital transfer of $68 million in 2019, which is larger than the $43.6 million for that in provincial capital transfers in 2019.[23]

To repeat, these are examples of how capital transfers might be structured for municipal infrastructure that generates significant benefit spillovers. A more detailed analysis of the benefits spillovers from different types of infrastructure should be undertaken to determine the degree of support for such infrastructure spending. Nonetheless, we use the above calculations to ballpark the funds that would be available for a matching capital grants program for the municipalities' capital expenditures on roads and water treatment and disposal.

5.1.2 A Tax Base Supplement

In this section, we show how a transfer that supplements revenues of municipalities with deficient property tax bases could be structured. We begin by describing a basic formula for determining the level and allocation of transfers that provide fiscal supplements to municipalities with property tax bases that fall below a standard level. In the equations below, T_i is the per capita transfer for municipality i which has a per capita property tax base of B_i. Two policy parameters, S and t, determine the eligibility for the transfer and the size of the transfer. S is a standard per capita property tax base. A municipality would receive a transfer only if its per capita tax base, B_i, is less than the standard tax base, S. t is a standard property tax rate that determines the size of the transfer.

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[22] This is the sum of provincial capital transfers for Roads, Streets, Walks, Lighting in the MFSD E02330.

[23] This is the total of provincial capital transfers for Wastewater Treatment and Disposal in the MFSD E02400.

$$T_i = t(S - B_i) \quad B_i < S$$

$$T_i = 0 \quad B_i \geq S$$

Municipalities with tax bases above the standard would not receive a transfer, although they would receive transfers based on their capital expenditures under our proposed matching grant program. Under this formula, a municipality with property tax base below the standard would receive a transfer that would bring its revenues up to the level of a municipality with the standard tax base and that levied the standard tax rate. Such transfers are a common feature of grants to municipalities in other provinces. See Bird and Slack (2021) for an overview of provincial equalization transfers to municipalities.

The provincial government would set the two policy parameters, the standard tax base and the standard tax rate. The choice of these policy parameters involves value judgments about the need to supplement the revenues of municipalities with low property tax bases. The total cost of the program would also be a consideration within the context of the province's overall fiscal position and the source of funds for the transfer, an issue that is discussed in greater detail below. Given that the choice of the key policy parameters is highly subjective, below we will use a range of values to illustrate how they would affect the level and allocation of such transfers.

Given the choice of standard tax base, the distribution of the per capita equalized property assessments among the municipalities determines the number of municipalities eligible for the transfer. Figure 11 shows the distribution of the municipal per capita property tax bases between the 10th percentile and the 90th percentile.[24] The figure clearly indicates that the distribution is highly skewed to the right. While the median per capita equalized assessment was $117,159 in 2019, the average of the municipalities equalized assessments was $190,589, which represents the 77th percentile of the distribution. In other words, if the standard tax base were set equal to the average per capita property tax base of the municipalities that are covered in this section of the report, 216 municipalities or 77 per cent of the municipalities would be eligible for the fiscal supplement transfer. (Recall that our proposed reforms would only apply to 281 cities, towns, villages, municipal districts and specialized municipalities). The total transfer based on the average tax effective property tax rate, 8.056 mills, and the average municipal per capita property tax base would have been $667.8 million in 2019.

[24] The per capita property tax bases of the top 10 per cent of the municipalities have been omitted from the figure because of their extremely high values, which range from $373,973 to $1,931,750. The per capita property tax bases of the bottom 10 per cent range from $19,244 to $66,717.

Figure 11. Distribution of Per Capita Equalized Assessment Among Municipalities in 2019

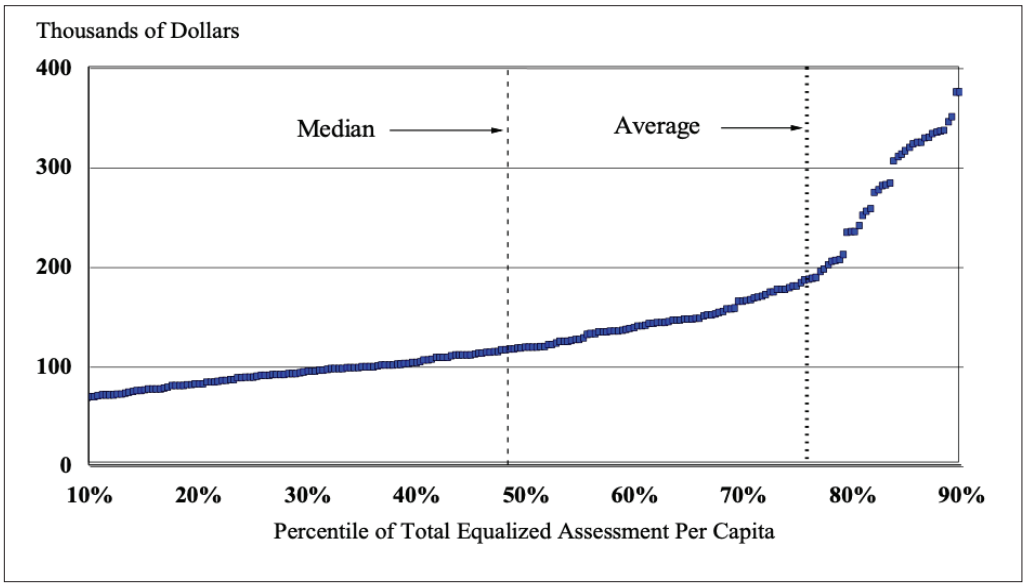
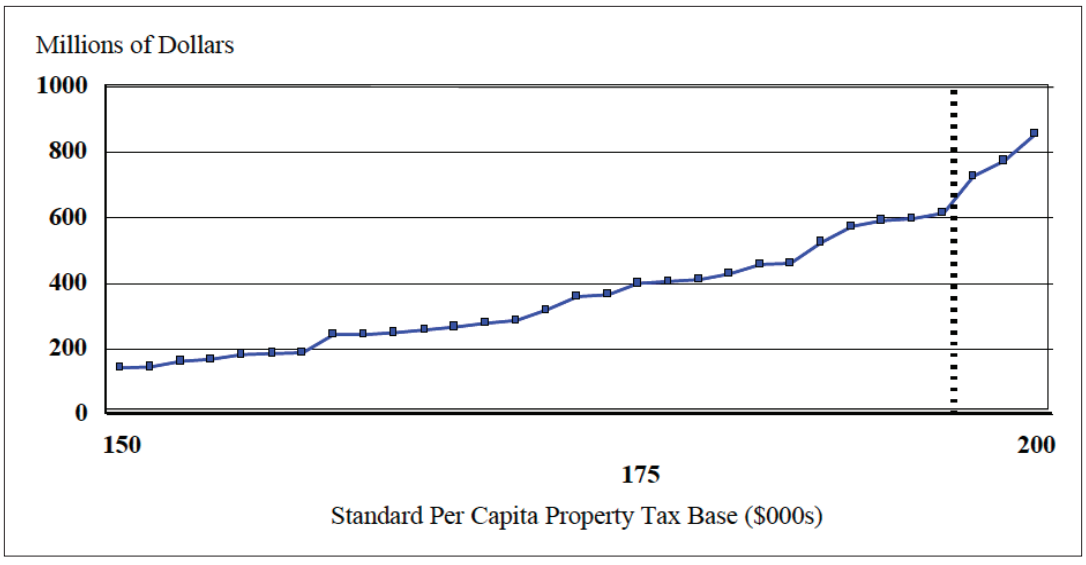


Figure 12 shows that the total cost of the transfer rapidly increases as the standard tax base approaches and then exceeds the average per capita tax base.

Figure 12. Total Tax Base Supplement Transfer at the Average Effective Property Tax Rate



Note: The average effective property tax rate in 2019 was 8.056 per thousand dollars of equalized assessment.

Table 8 indicates the number of recipient municipalities, the total population of recipient municipalities and the total cost of the program for a range of values for the standard property tax base and the standard property tax rate. For example, with a low standard base of $150,000 per capita, 189 municipalities with 803,944 residents would have been eligible for the transfer in 2019. The total amount transferred ranges from $102.7 million with a standard tax rate of six mills to $171.2 million with a standard tax rate of 10 mills. At the other extreme, if the standard tax base were $200,000 per capita, 218 municipalities with 2.27 million residents would have been eligible for a transfer from a pool of funds between $625.2 million and $1,041.9 million over the same range of standard tax rates.

Table 8. Total Transfers Under a Tax Base Supplement Transfer Program (Millions of Dollars)

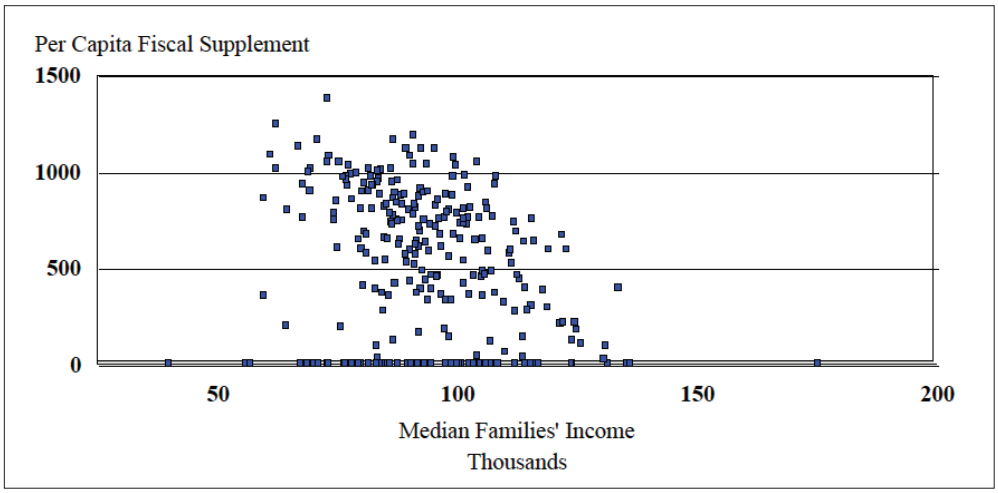
Standard Property Tax Rate per $1,000 of Equalized Assessment	Standard Property Tax Base (Thousands of Dollars Per Capita)		
	150	**175**	**200**
6.000	102.7	291.2	625.2
8.000	137.0	388.3	833.6
10.000	171.2	485.3	1041.9
No. of Municipalities Receiving Fiscal Supplement Transfers	189	205	218
Total Population of Municipalities Receiving Fiscal Supplement Transfers[a]	803,944 (18.8%)	2,076,069 (48.4%)	2,267,069 (52.9%)

[a] The percentage of the provincial population is shown in brackets.

It is important to note that while the proposed transfer is based on a municipality's property tax base, Figure 13 shows that municipalities with lower family incomes would tend to receive larger per capita transfers. A regression model confirms the visual impression in Figure 13 that the transfer program would tend to provide larger per capita transfers to municipalities with lower family incomes.[25]

[25] A tobit model was estimated because of the large number of zeros for the per capita transfer. The estimated coefficient for median family income in a tobit regression with 275 observations from 2019 was -0.0057709 with a t statistic of -3.63. These results imply that a municipality's expected per capita transfer would decline by $5.77 with a $1,000 increase in its median family income.

Figure 13. Municipalities' Per Capita Transfers versus their Median Families' Incomes



Note: The transfer was calculated at the average effective property tax rate in 2019 of 8.056 mills.

5.2 FUNDING PROVINCIAL TRANSFERS TO MUNICIPALITIES

The Alberta government collects almost $2.5 billion in what are called education property taxes. Although they go into general revenue, they are ostensibly intended to fund schooling. Following the 1994-95 reforms, there may have been some intention to phase out the school property tax but, if so, that ended as of 2005-07. From 1994-95 to 2005-06, the total amount of the education property tax collected annually was essentially constant at about $1.2 billion, with the result that it went from funding 51 per cent of school costs to 30 per cent. The provincial school property taxes levied are targeted to amount to 30 per cent of school operating costs and the target has been at that level since 2006-07.

There is logic for terminating provincial school property taxes. Provincial education property taxes are largely the relic of an era when schools were primarily funded by local property taxes, and provincial governments seeking to provide some support to local school authorities did not have income or general sales taxes, or those taxes were not substantial sources of revenue. Today, the benefits of education are not closely related to property but, rather, are more closely associated with income and consumption. While the education property tax did in an earlier time provide a mechanism for supporting local schools and for evening out somewhat the fiscal capacities of local school authorities, the other revenue sources that now fund over 70 per cent of school expenditures are preferable. In reality, education property taxes simply go to the province's general revenues.

Property taxes are better suited for financing local governments because they finance local services that are closely related to property and the people living in or using the property. The net benefits from municipal services and infrastructure are often reflected in property values. The property tax is also a very transparent tax and taxpayers monitor closely the tax-service trade-offs. An adequate property tax base reduces the demands for access to alternative taxes less well suited to municipalities.[26]

[26] For further discussion, see, for example, Dahlby and McMillan (2019) and McMillan and Dahlby (2014) and references cited in those publications.

The province should stop calling the provincial property tax an education property tax and instead designate the revenues that tax generates to fund municipal grants and possibly provide additional property tax room for municipalities. Using 2019 figures, the province collected $2.484 billion in school tax revenues.[27] Total provincial transfers to the municipalities were $2.143 billion in 2019.[28] Hence, if the province stopped earmarking provincial property tax revenues for education and reassigned them for municipal purposes, that revenue would have covered all the provincial grants and left $341 million as a property tax reduction or additional tax room for municipalities.[29] The province would no longer appear to fund any schooling costs from provincial property taxes. Rather, school costs would be financed, as in reality they are now, from provincial general revenue. Under our proposal, provincial property taxes would fund municipal grants.

The establishment of municipal grants funded by a provincial property tax brings with it numerous issues. Most important is to continue to provide revenues sufficient to fund transfers to municipalities comparable to current levels. That could be achieved by the province committing to maintain, measure and update equalized assessments and tax those assessments at the current rate. An option might be a commitment to fund a specific percentage of municipal tax collections (e.g., education property taxes were 32.4 per cent in 2019). Furthermore, it is reasonable to expect that the provincial government would consult with the municipal governments on changes to the provincial property tax and their distribution. A municipal government advisory/management board could be a possibility.[30] Notable advantages of a municipal grant funded by a provincial property tax are that a) the level of transfers to municipalities would be stabilized and predictable, and b) that all property taxes would be directly related to the services of municipal governments versus about three-quarters now. Furthermore, the change would improve transparency in that schools would be seen to be financed entirely from general revenue, which in effect is the case now.

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27 See Municipal Financial Statistics, 2019, Schedule K 04031 and 04035.

28 Ibid., Schedule D 01910 and 01920.

29 The residual $341 million implies a loss of revenue to the province. The province, however, could use the revenue to enhance provincial grants to the municipalities or to reduce provincial property taxes by that amount (although some municipalities might find encroaching on that tax room attractive). Regardless, the $341 million is relatively modest at both the provincial and municipal level. It amounts to about $8 per person or 13.6 per cent of the current school property taxes. Alternatively, it amounts to 3.3 per cent of total property taxes or 0.6 per cent of provincial expenditures. Of course, the province could retain the residual, at least temporarily until municipal grants grew to absorb that amount.

30 Another possibility is that the municipalities collectively assume entirely the responsibilities (and costs) of any property assessment, rate setting and distribution as well as (as now for the education property tax) the collection associated with a new municipal revenue fund.

6. CONCLUDING SUMMARY[31]

A striking feature of municipal finances in Alberta has been the doubling of the municipal infrastructure stock since 2005. The large increase was the result of a surge of investment that peaked in 2009-12. Current investment is just maintaining the now larger per capita capital stock. Municipalities finance their infrastructure investments from four main sources — borrowing, drawing upon their financial assets, using current year own-source revenues and applying transfers from the federal and provincial governments. Cities are the most reliant on debt financing of capital spending, although this has financed less than 25 per cent of their tangible capital asset purchases in recent years. Debt has not been an important source of funds for the other types of municipalities. Consequently, most municipalities' debt and debt service levels are well below the limits established by the provincial government. Drawing on financial assets is an important source of capital financing for the municipal districts and specialized municipalities, and many have financial reserves that are large relative to their needs for financing new and replacement capital assets. Government grants, and especially provincial government grants, are important sources of funding for municipal infrastructure investments. Villages and summer villages rely almost entirely for capital on grants to finance their capital expenditures. A major trend since the early 1990s has been the shift from provincial transfers for non-capital purposes to predominantly capital grants.

The allocation formula of the Municipal Sustainability Initiative, the largest grant program, is complex and reflects a desire to provide more per capita funding to smaller municipalities. The formula also allocates part of the grant based on the municipalities' shares of the total education property tax requisitions, which means that municipalities with greater fiscal capacity, as measured by their property tax bases, tend to receive larger capital transfers. While provincial capital transfers funded about half of the capital purchases of a typical Alberta municipality, the contributions among the municipalities were most uneven. The fact that capital transfers cover a high percentage of the cost of capital purchases by an average municipality, while non-capital or operating expenditures receive little or no support from the province, poses the question of whether this biases spending decisions towards capital undertakings.

There are substantial disparities in per capita property assessments among Alberta municipalities, especially among the municipal districts and specialized municipalities. These disparities are associated with large differences in municipalities' fiscal capacities as measured by the effective property tax rates on residential property, the dollar amounts that residential taxpayers pay and the burden of residential property taxes relative to family incomes.

Our overall conclusion from reviewing the allocation of provincial capital transfers and the disparities in the municipalities' fiscal capacities is that currently, capital transfers are not closely related to municipal capital purchases, and the system tends to favour "have" municipalities with above average fiscal capacities.

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[31] A more detailed version of this paper is available online.

This perverse allocation of grants has led us to propose a new system of provincial transfers to municipalities with two components. One component would provide matching grants to municipalities for spending on infrastructure, such as roads and water treatment facilities, that directly benefit non-residents and that generate fiscal benefits for the provincial government from increases in economic activity and tax revenues. A second component would provide grants to municipalities with deficient property tax bases.

We also propose a revenue-neutral change in the way provincial transfers to municipalities are funded. The province should stop designating the provincial property tax revenues for education spending and instead use those revenues to fund municipal grants. Education spending would be funded from provincial general revenues, and all property taxes would be used to fund municipal services. Using provincial property tax revenues to fund municipal grants would bring three main benefits. First, it would make transfers to municipalities more predictable, stable and transparent. Second, all property taxes would directly fund municipal services and infrastructure. Third, the system would be more transparent in how education spending is currently funded, which, in effect, is out of the province's general revenues.

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