

DO MUNICIPAL GOVERNMENTS NEED MORE TAX POWERS? A BACKGROUND PAPER ON MUNICIPAL FINANCE IN ALBERTA[†]

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SUMMARY

Local governments in Alberta have faced considerable and variable challenges over the past 60 years. For example, the rapid population and economic growth during the 1950s, '60s and '70s created exceptional demands for schools, schooling and municipal infrastructure; demands exceeding those of the last 30 years. Local and especially municipal financing has relied heavily on the property tax throughout. Questions are being asked today about whether the property tax is sufficient for municipal government. Our historical analysis provides insights into the fiscal situation of Alberta's municipalities that can assist in addressing those questions. The main findings are highlighted here. We conclude that current demands, though considerable, are not creating stress on the property tax as a source of municipal revenue.

- The property tax burden in Alberta during the past decade is the lowest that it has been over the past 60 years. Presently, property taxes are about 3.5 per cent of personal income. They were as high as seven per cent during much of the 1960s and averaged in the four to five per cent range from 1950 to 2000. Local and provincial school taxes were responsible for most of the fluctuations in the property tax burden. Municipal property taxes ranged from two to three per cent of personal incomes and recently amounted to about 2.5 per cent, a level typical of that over the past 20 years.
- Investment in local infrastructure has over the past 30 years been at half the rate of that of the previous 30 years. Only since 2006, with the assistance of provincial capital grants, has infrastructure spending shown upward movement. Capital spending lagged population growth for many years and probably contributed to a deterioration of infrastructure.
- Municipal current or operating expenditures (about three-quarters of the total) have been a declining share of personal incomes since the late 1980s and, since 2000, are a smaller share than observed since the early 1950s.
- Since the mid-1990s, municipal total expenditures (current plus capital) have represented a smaller percentage of personal incomes than in any years since 1953.

[†] This paper formed part of our presentation at the University of Calgary's School of Public Policy's Urban Growth and Finance Symposium, Calgary, October 9-10, 2013. It provides the fiscal background for our companion paper, "Do Local Governments Need Alternative Sources of Tax Revenue? An Assessment of the Options for Alberta Cities." We thank the conference participants and the anonymous referees for valuable comments and observations on both papers.

- The cost of financing municipal debt has decreased from 20 per cent of municipal expenditures in the mid-1980s to about four per cent today. Other categories have remained comparatively stable.
- Government grants to municipalities were greatly reduced from 1993 to 2004 but have since increased and now amount to about 19 per cent of total revenues.
- Over 90 per cent of municipal own-source revenues come from property taxes, investment income, and the sales of goods and services. Over the past 30 years, sales generated about one-third of the total. The property tax share has increased from 47 per cent to 55 per cent; essentially absorbing the declining contributions from investment income.
- Since the 1960s, municipal long-term debt has declined from 20 per cent of personal income to four per cent. Financial assets of municipalities amount to eight per cent of personal income. Since 2000, Alberta's municipalities have held net financial assets; that is, they have been net lenders.

Overall, Alberta municipalities are in a solid, even favourable financial position. Debt and debt-servicing costs are low, the burden of municipal property taxes has remained stable at a moderate level for many years, and the total property tax burden in Alberta is (and has been over the past decade) lower than at any period in the past 60 years.

The Finances of the Cities of Edmonton and Calgary

Much of the interest in municipal finances has to do with the situations of "big cities." An overview of the finances of Calgary and Edmonton provides insights into the Alberta "big city" circumstances. Comparisons between 1996 and 2011 give some historical perspective. Major observations are:

- Property taxes account for about 40 per cent of city revenues.
- Approximately one-half of property taxes are funded by non-residential property. That is, residential property taxes fund about 20 per cent of city services.
- Calgary and Edmonton had, at \$3,435, equal per capita revenues in 2011. Those amounted to 7.1 and 8.6 per cent of the personal incomes in the two cities. These percentages show that municipal governments in the big cities are (relative to income) larger than the typical Alberta municipal government (5.9 per cent).
- Transportation, protection (police, fire, EMS), environmental services (e.g., water, sewage, waste), recreation, and general government (legislative and administrative) account for 80 per cent of city expenditures. Spending by cities on social programs (e.g., health, social welfare, social housing) is less than five per cent of the total.
- Outlays for capital assets represented 40 per cent of total outlays in 2011. This is up from 20 per cent in 1996.
- City property taxes represent a greater percentage of personal incomes in 2011 than they did in 1996 but, because of the declining importance of school property taxes, the total property tax bill in Calgary has increased modestly (from 3.7 to 3.95 per cent of personal income) and has decreased slightly in Edmonton (from 4.2 to 4.06 per cent).
- The per capita city debt is \$3,065 per person in Calgary and \$2,430 in Edmonton. Those amounts are equivalent to 6.4 and 6.1 per cent of personal incomes. Compared to 1996, that percentage is almost unchanged in Calgary but is up from 4.6 per cent in Edmonton.

Since 1996, Calgary and Edmonton have experienced the challenges of coping with growing populations and of catching up after low rates of infrastructure investment in the 1990s. Despite those demands, city property taxes (at 2.8 per cent of personal income in Calgary and 3.0 per cent in Edmonton) have increased somewhat between 1996 and 2011, but have done so in an environment where the total (city and school) property tax burden has hardly changed. Debt has risen relatively in Edmonton since 1996, but the city debt is the equivalent of just over six per cent of personal incomes in both cities and is essentially unchanged in Calgary. Both cities appear to be on solid financial footings and coping well with the recent challenges.

INTRODUCTION

Municipal finance is a topic that has garnered considerable attention in recent years in Canada and no less so in Alberta.¹ One of the numerous issues that has arisen is whether municipal governments today need additional sources of tax revenues; that is, additional taxation powers. We examine alternative municipal taxes and address that question in a separate paper.² Such an assessment cannot be done without some understanding and appreciation of the characteristics and performance of the existing municipal finance system and particularly its tax capacity. This paper provides that background for Alberta.

Many of the concerns today emerge from the demands upon Alberta municipalities of a strong and growing economy and the accompanying rapid population growth. This situation is not new, especially in Alberta. To provide insight into the municipal sector's capacity to cope with such circumstances, a historical review is valuable. Our assessment looks at municipal and local government finance over an approximately 60-year period, during which there have been substantial economic and demographic changes. The first part of this paper reports this historical review.

Although all types of municipalities experience financial stresses and concerns, much attention has been paid to cities. That is hardly surprising in a very urbanized province and country. While our long-term data encompass all municipalities, they largely reflect the urban situation. Yet, big cities have their own characteristics. To capture some insight into the features and issues in Alberta's largest cities, the second portion of this paper examines the finances of the cities of Calgary and Edmonton. Comparable long-term data are not as available for these cities as they are for municipal governments in total. However, to provide some historical perspective, some features are compared between 1996 and 2011; again, two periods with different economic and demographic conditions.

A HISTORICAL REVIEW OF LOCAL PUBLIC FINANCE IN ALBERTA

Current problems are better understood when viewed in the context of experience. Today's problems may not be new and may have been dealt with earlier or elsewhere. This historical perspective of local- and especially municipal-government finance in Alberta broadens the perspective and adds context to aid our assessments.

¹ A selection of papers examining the municipal finance issue includes: Alberta Minister's Council on Municipal Sustainability, "Report to the Minister of Municipal Affairs" (March 2007); Alberta Urban Municipalities Association, "2007 Policy Statement on Municipal and Social Infrastructure" (December 2006); Conference Board of Canada, "Implement Sustainable Funding for Canadian Cities, Briefing" (January 2008); External Advisory Committee on Cities and Communities, *From Restless Communities to Resilient Places, Final Report* (June 2006), www.infrastructure.gc.ca; Paul A.R. Hobson and France St-Hilaire (eds.), *Urban Governance and Finance: A Question of Who Does What* (Montreal: Institute for Research on Public Policy, 1997); Harry M. Kitchen and Enid Slack, "New Finance Options for Municipal Governments," *Canadian Tax Journal* 51, 6 (2003): 2215-2275; Jack M. Mintz and Tom Roberts, "Running on Empty: A Proposal to Improve City Finances," *Commentary* 226 (C.D. Howe Institute, February 2006); and Casey Vander Ploeg, "Problematic Property Tax: Why the Property Tax Fails to Measure Up and What to Do About It" (Calgary: Canada West Foundation, November 2008); as well as other papers referenced below.

² Bev Dahlby and Melville McMillan, "Do Local Governments Need Alternative Sources of Tax Revenue? An Assessment of the Options for Alberta Cities," *SPP Research Papers* (University of Calgary, 2014).

In undertaking the analysis, it is important to distinguish (as is done here) between local and municipal government in Alberta and elsewhere in Canada.³ Local government encompasses both local school authorities and municipalities (also known as general purpose local governments).⁴ While the relative importance of each has varied, both have substantial expenditure responsibilities. Also, both have traditionally relied upon property taxes as a source of tax revenue although, in the case of school authorities, there has been a movement from locally determined school property taxes to provincially levied school property taxes. The interest here is on municipal governments' finances but, because both the school and the municipal authorities are included under the local rubric and share (or have shared) the property tax base, the developments on both the school and municipal side must be examined to understand the municipal situation.

A lengthy series of local public finance data is available. We examine those data back to 1950 for Alberta.⁵ Those data distinguish between school and municipal activities but do not distinguish cities, our prime interest, from other municipalities. However, municipalities, small and large, have similar responsibilities and revenue sources under provincial legislation and the major cities are a large (and growing) component of the whole. Thus, the aggregated general-purpose government data offer much insight into both total municipal government finance and city finances in Alberta.

Concerns about municipal government finance automatically turn to property taxes, the only significant tax available to local governments in Canada. Hence, this part of the paper begins with an overview of property taxes in Alberta. Expenditures are what revenues finance, so we present reviews of infrastructure spending, the pattern of both current and capital spending, and the functional composition of expenditures. Revenues include much more than property taxes, so a comprehensive perspective of revenues – including other own-source revenues and transfers from other governments – is provided. Other than for the concluding observations, an overview of the financial assets and liabilities of local governments completes this section of the paper.

³ Indeed, while there are differences among the provinces, local and especially municipal finance is quite similar across Canada. For information on local government finance in Canada refer to: Andrew Sancton and Robert Young, *Foundation of Governance: Municipal Government in Canada's Provinces* (Toronto: University of Toronto Press and Institute of Public Administration of Canada, 2009); Melville McMillan, "Local Government Organization and Finance: Canada," in *Local Governance in Industrial Countries*, ed. Anwar Shah (Washington, D.C.: The World Bank, 2006), Chapter 2; and Richard C. Tindal and Susan Nobes Tindal, *Local Government in Canada* (Toronto: Thompson, 2004).

⁴ In some cases and at some times, other minor local authorities may be included under the local umbrella. For example, see "local authority" under Alberta's Municipal Government Act. Although regional health authorities were included as local authorities, the finances of the regional health authorities were not included in local government fiscal data.

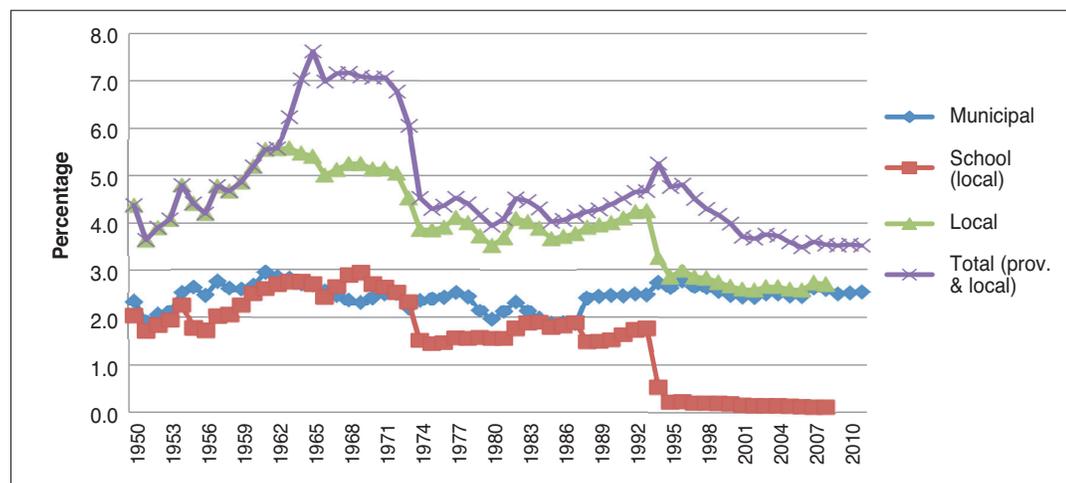
⁵ The data to 2008 come from Statistics Canada sources. Data from 1950 to 1984 are from *Local Government Finance*, Statistics Canada Catalogue 68-204 (known as *Municipal Government Finance* up to 1966); the 1985 to 1987 data are from *Public Finance Historical Data, 1965/66 – 1991/92*, Statistics Canada Catalogue 68-512 Occasional; data from 1988 to 2008 come from Statistics Canada's *CANSIM* database (Table 3850024, terminated as of 2008); and later data come from Alberta Municipal Affairs *Municipal Financial and Statistical Information* files available on the ministry website. Population and personal income data also come from Statistics Canada, with personal income data updated from Alberta Finance sources, where necessary.

Property Taxation

Property taxes are the dominant tax, and usually the dominant revenue source, of municipal governments. But property taxes make important contributions to school finance as well. Because municipal and school financing authorities share the property tax base, the roles of both municipal and school property taxes must be considered.⁶ We are interested in the significance, indeed the varying significance, of the property tax over an extended period. To measure that, a comparator is required that adjusts for price change and population and income growth. We have selected personal income. That is, we compare property taxes (and other fiscal factors) to personal income. In addition, we are interested in changes in the “burden of the property tax” on Albertans over time, which can be approximated by the ratio of the property tax to personal income. Gross domestic product is often used as a base for comparison but, because GDP fluctuates both more than personal income and relative to personal income in Alberta, personal income is preferred for this analysis. Also, the GDP series for Alberta begins only in 1961 and we wish to include some earlier developments. Despite the differences, the general patterns are quite similar over the common period.

Figure 1 shows property and related taxes in Alberta as a percentage of personal income from 1950 to 2011. Property and related taxes is a comprehensive measure of taxes on property and includes general property taxes, special levies or assessments (e.g., for specific improvements), grants from the federal and provincial governments in lieu of property taxes, business taxes, and certain other revenues.⁷ The term property tax is used here to refer to property and related taxes unless otherwise noted. Figure 1 reports the shares of personal income represented by municipal property taxes, local school property taxes, total local (municipal and school board) taxes, and the overall total of local and provincial property taxes.⁸

FIGURE 1. PROPERTY AND RELATED TAXES AS A PERCENTAGE OF PERSONAL INCOME, ALBERTA, 1950-2011



⁶ School property taxes have been levied by local school boards, both local boards and the provincial government and, more recently, by only the provincial government.

⁷ Not all current components of property and related taxes are identified in the early data.

⁸ The data for 2009 to 2011 come from Alberta Municipal Affairs data. Those data do not provide information on local school and total local property taxes.

Consider first the trend in the total (i.e., local and provincial) property tax as a percentage of personal income, which was about four per cent of personal income in the early 1950s, but rose rapidly to about seven per cent over much of the 1960s and early 1970s. Then from 1974 to 2000, it dropped quickly to the four to five per cent range. Since 2000, the total property tax has continued to decline, reaching 3.5 per cent of personal income in 2008 and held steady at that level since. Since 2000, the property tax “burden” has been lower than at any time (excluding 1952) during the previous 50 years.

Comparing the total and the local property tax lines reveals the changing role of provincial property taxes. Provincial property taxes appeared in 1963, as part of the growing provincial support for schools. The provincial property tax averaged 1.9 per cent of personal income from 1964 to 1973 but then dropped to about 0.4 per cent until 1993. In 1994, the province terminated local school taxes and absorbed most of the property tax room of the local school boards. That move drove local school taxes to almost zero and raised the provincial portion to two per cent of personal income. Since 1994, the provincial percentage has declined from about two per cent to 0.9 per cent of personal income.⁹

The property taxes collected by the local school boards reflect schooling expenditures and provincial funding policies. With the baby boomers entering and progressing through the school system, local school taxes rose from two to almost three per cent of personal income as school expenditures increased from three per cent to a peak of 6.7 per cent of personal income but then dropped to a range of 1.5 to two per cent as school expenditures declined to about four to five per cent of personal income. Local school taxes essentially disappeared in the mid-1990s with the changed provincial policy.

In contrast to provincial and local school property taxes, municipal property taxes have remained comparatively stable. Except for occasional years, they have ranged between 1.9 and 2.9 per cent of personal income. From 1954 to 1972, municipal taxes were towards the upper end of the range, averaging 2.6 per cent, but, from 1979 to 1987, they were at the lower end, averaging 2.0 per cent. Since then, the municipal property taxes have been quite constant and have averaged 2.5 per cent of personal income (close to the overall average of 2.44 per cent).

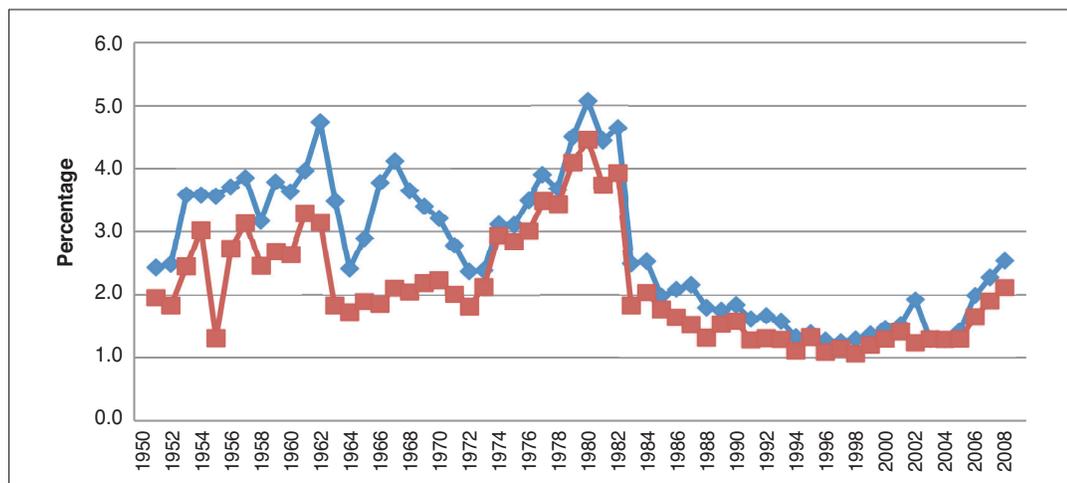
In sum, property taxes in Alberta have varied substantially as a percentage of personal incomes. By far, the greatest part of that variation has resulted from increases and decreases in the demands for schooling and for financing school construction and from changes in school finance policy. In contrast, municipal property taxes have shown some variations but, comparatively, have been relatively stable and particularly so over the past two decades. The recent downward trend of the total property tax burden — which has fallen from about 4.7 per cent of personal income in the early and mid-1990s to about 3.5 per cent today (i.e., since 2008) — is notable. Even more striking and significant is that the total property tax burden has, since 2000, been lower than at any time since 1950, save for the sole exception of 1952.

⁹ As announced in the 2013 Alberta budget, the provincial property tax is expected to stabilize as a share of school operating expenditures (at 32 per cent) and so is also likely to stabilize as a percentage of personal income.

Local Infrastructure Expenditures

Maintaining existing local public infrastructure and meeting the need for new infrastructure in the face of growing populations have been lingering issues.¹⁰ Again, both school and municipal infrastructure are important, although municipal infrastructure is by far the dominant component. Figure 2 shows the expenditures on fixed assets by local governments (i.e., school and municipal combined) and by municipal governments alone in Alberta as a percentage of personal income. The significant gap between the total and municipal lines from 1951 to 1971 denotes the relatively high level of capital expenditures for schools during that time: about 35 per cent of local capital expenditures. Since then, however, outlays for school infrastructure have been at about one-half that level and municipal outlays for fixed capital have amounted to over 80 per cent of local infrastructure expenditures.

FIGURE 2. LOCAL AND MUNICIPAL GOVERNMENT EXPENDITURES ON FIXED ASSETS AS A PERCENTAGE OF PERSONAL INCOME, ALBERTA 1951-2008

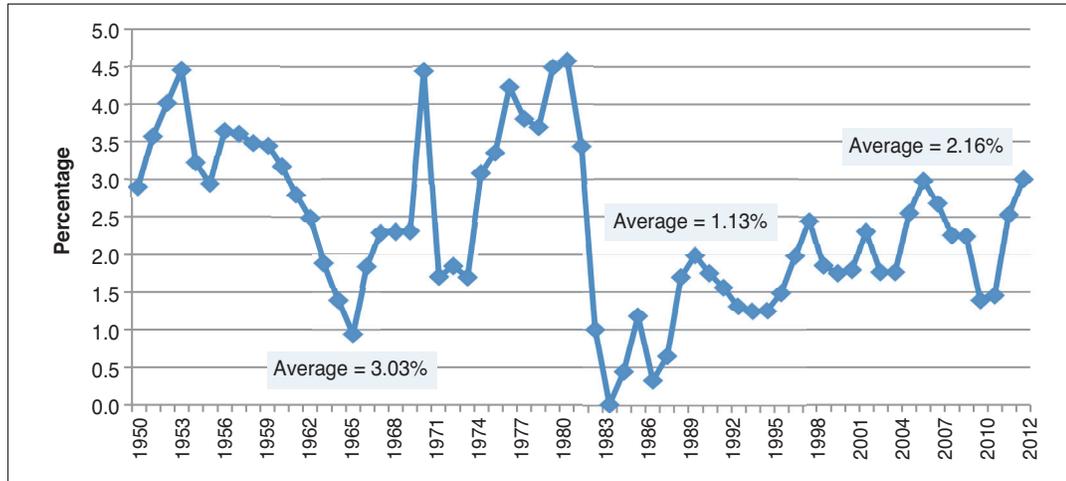


The rate of local infrastructure investment can be separated into two distinct periods. From 1951 to 1982, local expenditures on fixed assets averaged 3.5 per cent of personal income, but from 1983 to 2008, they averaged 1.7 per cent (less than half the previous 30-year level).¹¹ That pattern tends to follow population growth. As demonstrated in Figure 3, population growth from 1950 to 1981 averaged three per cent, but the rate then dropped sharply and averaged only 1.13 per cent from 1982 to 1995. Since 1996, the population growth rate increased and has averaged 2.16 per cent annually. As evident from Figure 2, local infrastructure investment collapsed in parallel with population growth in the early 1980s and the two continued at low levels through to the mid-1990s. However, infrastructure investment did not pick up with the increase in the population growth rate after 1995. In fact, local capital spending was notably low from 1993 to 2004. The prolonged period of low infrastructure investment may have resulted in what many have called an “infrastructure deficit.”

¹⁰ For example, see: Federation of Canadian Municipalities, “Municipal Infrastructure: Macroeconomic Impacts of Spending and Level-of-Government Financing” (May 2008) and “Canadian Infrastructure Report Card 2012” (September 2012); Alberta Urban Municipalities Association, “2007 Policy Statement on Municipal and Social Infrastructure” (December 2006); and Almos Tassonyi, “Financing Infrastructure in Canada’s City-Regions,” in *Urban Governance and Finance: A Question of Who Does What*, ed. Paul A.R. Hobson and France St-Hilaire, (Montreal: Institute for Research on Public Policy, 1997), 171-200.

¹¹ Comparable data on expenditures for fixed assets are available only from 1951 to 2008.

FIGURE 3. POPULATION GROWTH RATES, ALBERTA, 1951-2012



Increased municipal expenditures on fixed assets were responsible for the resurgence in local capital investment from 2006 to 2008. Municipal capital outlay rose to 2.1 per cent in 2008; up from 1.3 per cent during the first half of the decade.¹² The resurgence was facilitated by the strong (booming) economy and the introduction of a large provincial government grant program for municipal infrastructure that, for the most part, continues.¹³

To summarize, municipal capital outlays were, on average, high but uneven from 1951 to 1982. They averaged 2.55 per cent of personal income until 1962, two per cent from 1962 to 1973, and 3.55 per cent from 1974 to 1982. The low levels from 1962 to 1973 coincided with the high levels of provincial property taxes (see Figure 1) and with a lull in the level of population growth (see Figure 3). The early 1970s saw a sharp drop in provincial school property taxes and ushered in a period of lower school taxes and reduced school capital spending, but accompanied by a short period of faster population growth. With those developments, municipal capital expenditures rose to 3.0–4.5 per cent of personal income for almost a decade before the sharp fall in 1983 (again coincident with a decline in population growth). That drop marked the beginning of two decades of a low level of expenditures on fixed assets. Municipal infrastructure outlays in Alberta have been sensitive to population growth (and, perhaps, to the pressures of school property taxes). Those expenditures, however, appear to have responded slowly and possibly only modestly to the latest surge in population.

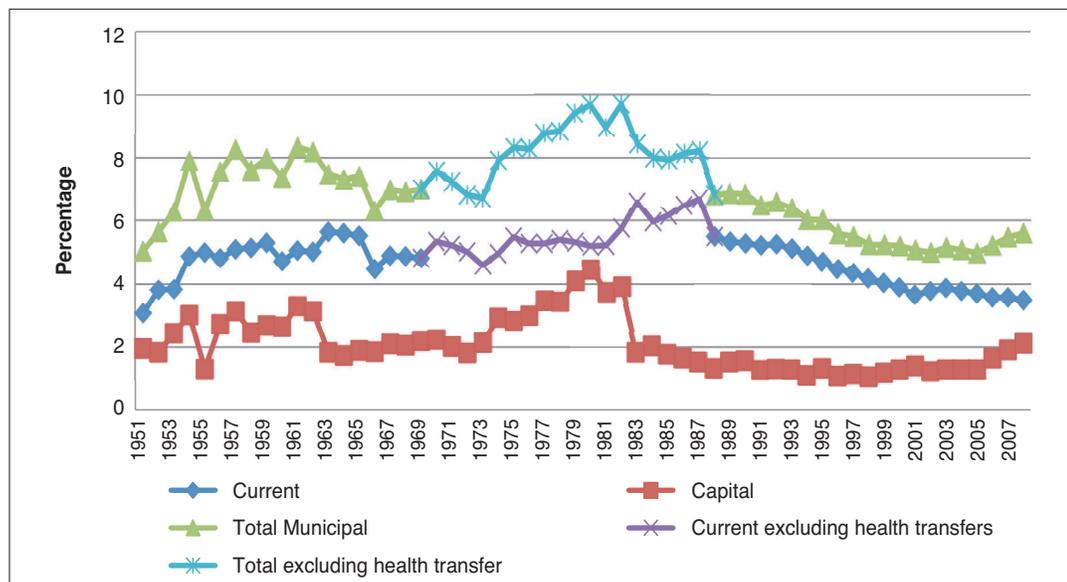
¹² While the Statistics Canada data series used for Figure 2 has been terminated, Alberta Municipal Affairs' municipal finance data suggest that municipal investment continues at the larger recent levels.

¹³ That municipal infrastructure grant program began under the government of former premier Ralph Klein in 2005 and has continued since 2007 under the Municipal Sustainability Initiative. For a review of municipal finance, including provincial municipal assistance, see: Edward C. LeSage Jr. and Melville L. McMillan, "Alberta: Municipal System Overview Update," Information Bulletin 135 (Western Centre for Economic Research: University of Alberta, January 2010). An earlier and shorter version of that paper appears as the "Alberta" chapter in Andrew Sancton and Robert Young (eds.), *Foundations of Governance: Municipal Government in Canada's Provinces*, (Toronto: Institute of Public Administration of Canada and University of Toronto Press, 2009), 384-452.

MUNICIPAL CURRENT AND CAPITAL EXPENDITURES

It is important to look more broadly at municipal finances. We begin by considering both municipal current and capital expenditures. Those are plotted, as a percentage of personal income, in Figure 4. Note the adjustment for health transfers from 1971 to 1987 made so that expenditures are comparable over the full period.¹⁴ While capital expenditures are important, current or operating expenditures are the dominant component. Over the full time period, current expenditures have averaged 70 per cent of the total. As suggested from the previous analysis, the ratio has changed. Up to 1982, capital expenditures averaged almost one-third of the total, but they have averaged less than one-quarter since then (although again increasing to one-third from 2006 to 2008).

FIGURE 4. MUNICIPAL CURRENT, CAPITAL AND TOTAL EXPENDITURES AS PERCENTAGES OF PERSONAL INCOME, ALBERTA (ADJUSTED FOR HEALTH TRANSFERS, 1971-1987)



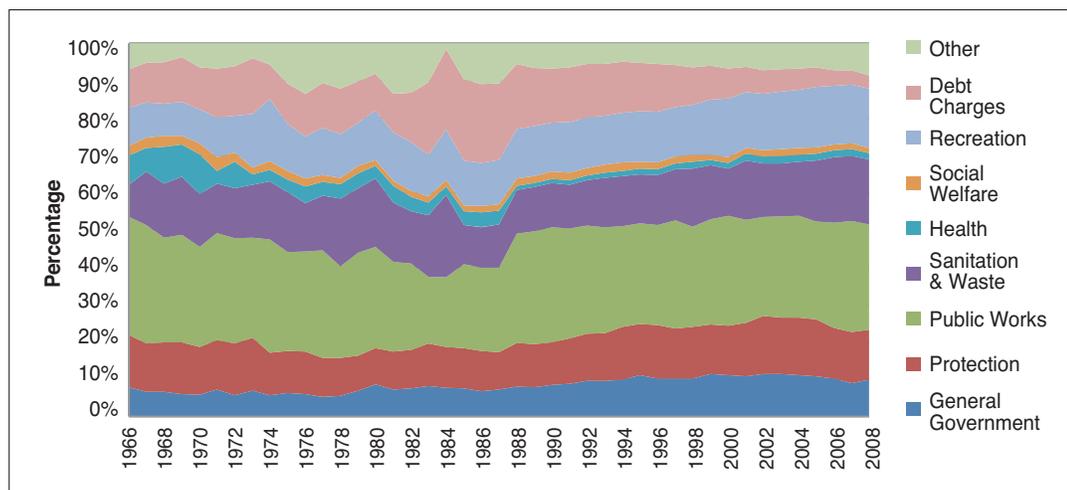
Total municipal expenditures have varied considerably as a percentage of personal income; from five to 9.7 per cent. One reason for the high levels in the 1970s and early 1980s was the surge of capital spending. Since then however, total expenditures have been on a downward trend and have been at relatively low levels since 1990 or thereabouts. Indeed, total municipal expenditures as a percentage of personal income have, since 1996, been at levels below those observed since 1951 and 1952. As of 2008, current expenditures had essentially been on a downward trend for 15 years. Total expenditures show an upward tick from 2006 to 2008 only because of an increase in the level of capital spending. Overall, both current and capital municipal expenditures have been relatively low since the early 1990s and total expenditures, which averaged 7.7 per cent of personal income between 1951 and 1987, averaged 5.7 per cent from 1988 to 2008.

¹⁴ From 1971 to 1987, the province made large transfers (averaging 1.8 per cent of personal income) to the municipalities to support health care (especially hospitals). Those transfers averaged 1.8 per cent of personal incomes and municipal health expenditures increased in parallel. Because the abrupt increase and decrease reflect a period of changed responsibilities and funding uncharacteristic of the other years, we omit them from the data in Figure 4 so as to outline a series more representative of municipal expenditures throughout the period 1951–2008. Those health transfers were not considered local or municipal expenditures in the provincial accounts or in the province’s accounting of municipal finances.

The Composition of Municipal Expenditures

On what functions do municipal governments spend and have those changed over the years? Figure 5 provides insight to these questions. Prior to 1966, capital expenditures were not categorized by function, so the earlier data are not reported. Initially, note the dominant expenditure categories today. Transportation is largest at about 28 per cent. Sanitation, recreation and protection are relatively similar in magnitude, ranging from 14 to 17 per cent. General government accounts for 10 per cent. Those five together constitute 85 per cent of expenditures. The other four categories make up the remainder.

FIGURE 5. MUNICIPAL GOVERNMENT EXPENDITURES: CATEGORIES BY PERCENTAGE, ALBERTA 1966-2008 (HEALTH TRANSFER ADJUSTED, 1971-1987)

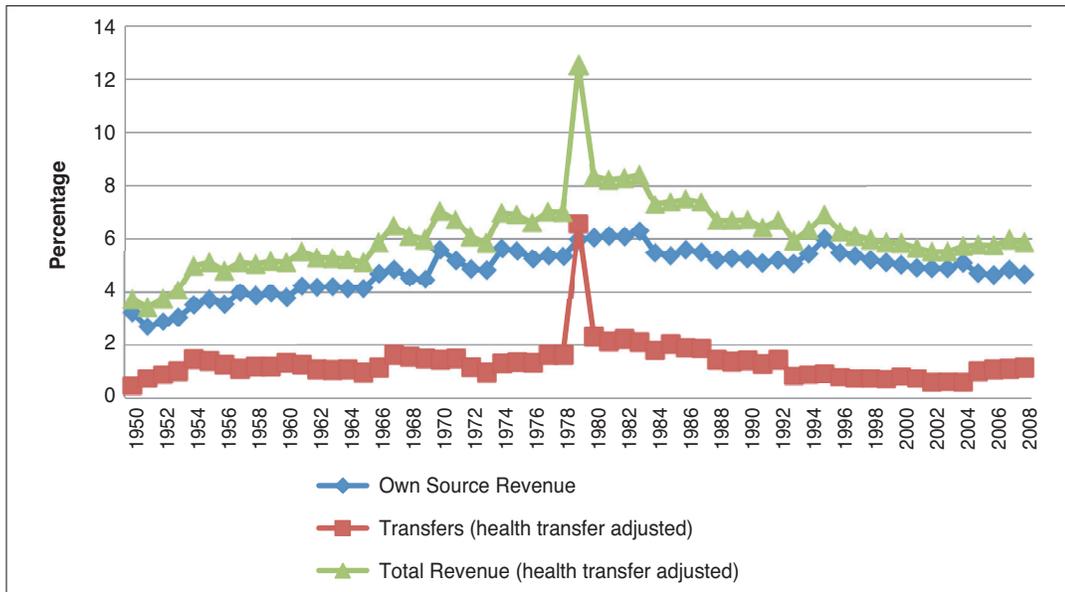


The distribution of expenditures among municipal programs is relatively uniform over the years, perhaps surprisingly so. There seems to be some increase in the shares of general government, recreation and, more recently, sanitation. The most notable feature, however, is the variation in the portion of expenditures devoted to debt charges and related finance-service costs. With significant borrowing, accumulated debt and high interest rates, debt servicing expanded to over 20 per cent of expenditures in the mid-1980s but debt reduction and lower interest rates caused the share to fall to less than four per cent by 2008.

Municipal Government Revenues: Own-Source and Transfers

Municipal government expenditures are funded from own-source revenues and transfers from the federal and provincial governments. Own-source revenues — such as property taxes, fees, charges, etc. — are those that municipalities can levy at their own discretion. Transfers are determined by the federal and provincial governments. The funding from these sources, and their total, are reported in Figure 6. The anomalous feature in the figure is the spike in transfers in 1979. That spike shows the impact of a one-time provincial per capita transfer to the municipalities aimed at (but not restricted to) debt reduction.

FIGURE 6. MUNICIPAL TOTAL REVENUE, OWN-SOURCE REVENUES AND TRANSFERS AS A PERCENTAGES OF PERSONAL INCOME, ALBERTA (HEALTH TRANSFER ADJUSTED, 1971-1987)



Transfers to the municipalities grew over time to about two per cent of personal income and 25 per cent of municipal revenue in the 1980s. After that, they became less important, and especially so from 1993 and 2004 when they averaged 0.75 per cent of income and between 11 and 14 per cent of total revenues. From 2005 to 2008, transfers expanded to about 1.1 per cent of income and 19 per cent of revenues as a result of increased provincial grants.¹⁵

Municipal own-source revenues grew from three per cent to six per cent of personal income between 1950 and 1980. They then slipped to about 5.4 per cent from the mid-1980s to the late-1990s. After 2000, own-source revenues declined somewhat further to about 4.7 per cent of personal income by 2008. From 1993 to 2004, own-source revenues accounted for 87.5 per cent of municipal government revenues.

The trend in total municipal revenue has changed over time. As a percentage of personal income, total revenue more than doubled from the early 1950s to the early 1980s; from four per cent to over eight per cent. Since then, it has largely trended down — to about six per cent during the mid-1990s, to a low of 5.5 per cent in 2002 but, by 2008, it had increased to 5.9 per cent.

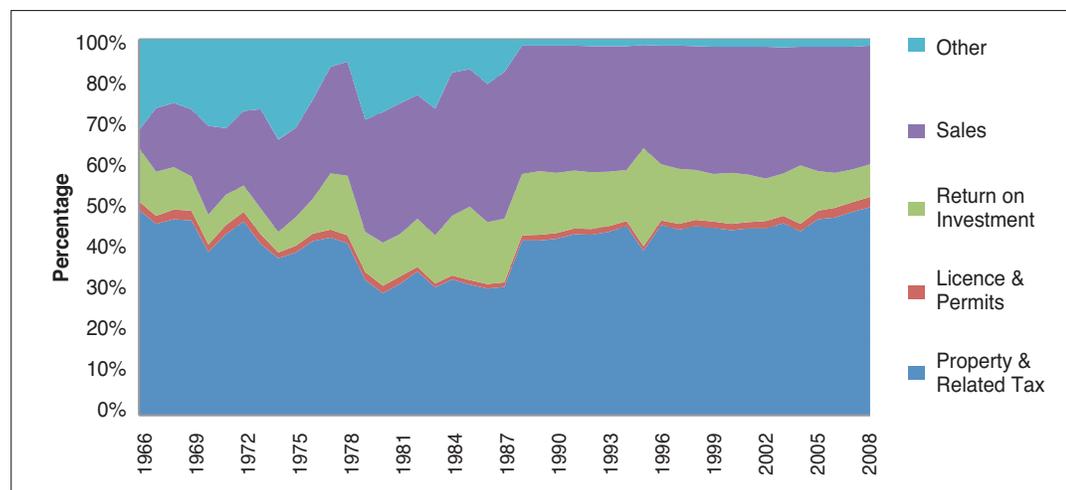
Overall, as a percentage of personal income, municipal government revenues have declined since 1980. Despite some increase over the 1990s levels, transfers in 2008 were 61 per cent of the 1970s–1980s average. Own-source and total municipal revenues in 2008 were smaller percentages of personal income than in the 1970s, the 1980s and the 1990s. Each was approximately 85 per cent of the average through the 1970s to 1990s. Albertans, and their provincial government, are directing a smaller share of their income to their municipal governments.

¹⁵ Almost all (95 per cent) of the direct transfers to municipalities are made by the provincial government. Recently, the purpose of grants have become increasingly specific (conditional) rather than general purpose (unconditional). In 1988, 30 per cent of grants to municipalities were general purpose; in 2008, only 2.5 per cent were general purpose.

Municipal Government Revenues: The Composition of Own-Source Revenues

Municipal governments obtain their own-source revenue from a variety of sources in addition to property taxes, which are the dominant source. The contributions provided by the major categories of own-source revenues are shown in Figure 7. The main category sources are property and related taxes, sales of goods and services, return on investments, licences and permits, and “other.” Because sales were only introduced as a separate category in 1966, the series starts with that year. Sales were only a small share when introduced, but grew to one-third of own-source revenues by the early 1980s. The expansion of sales reduced the property tax share and the portion attributed to other revenues, and probably represents some redefinitions and some expansion in the use of user charges. Because the detail provided in the data and definitions change somewhat over time, it is most reasonable to focus on the distribution of own-revenue sources from 1989 on; that is, after a major revision in Statistics Canada’s Financial Management Series. Since 1989, sales consistently generate one-third of municipal own-source revenue. The property tax share has increased from 47 to 55 per cent; essentially absorbing the reduction in the contributions from investment income.¹⁶

FIGURE 7. PERCENTAGE SHARES OF OWN-SOURCE MUNICIPAL REVENUE, ALBERTA 1966-2008



Our reference to property taxes actually refers to property and related taxes. The tax on real property (land and structures) is the largest component and represents about 70 per cent of the property-and-related tax total. Closely related are grants in lieu of property taxes that are paid by the provincial and federal governments on their property holdings. Special assessments, a levy on property used to finance particular improvements or extra services, are another important component. A variety of taxes on business activities, often related to property characteristics, are also a specific part. Of course, there are miscellaneous other taxes that fall into the property-related category. The various components are not followed here but should be recognized.

¹⁶ The share of revenue from other sources has been stable and that from licences and permits has increased from about 1.5 per cent to 2.7 per cent.

The sale category typically includes some utility services (notably for water and sanitation services) and rentals and charges (e.g., for halls and use of recreational facilities) among other such fees. Growth in the recreational and cultural services provided by local government undoubtedly contributed to the expansion of sales as a source of revenue.

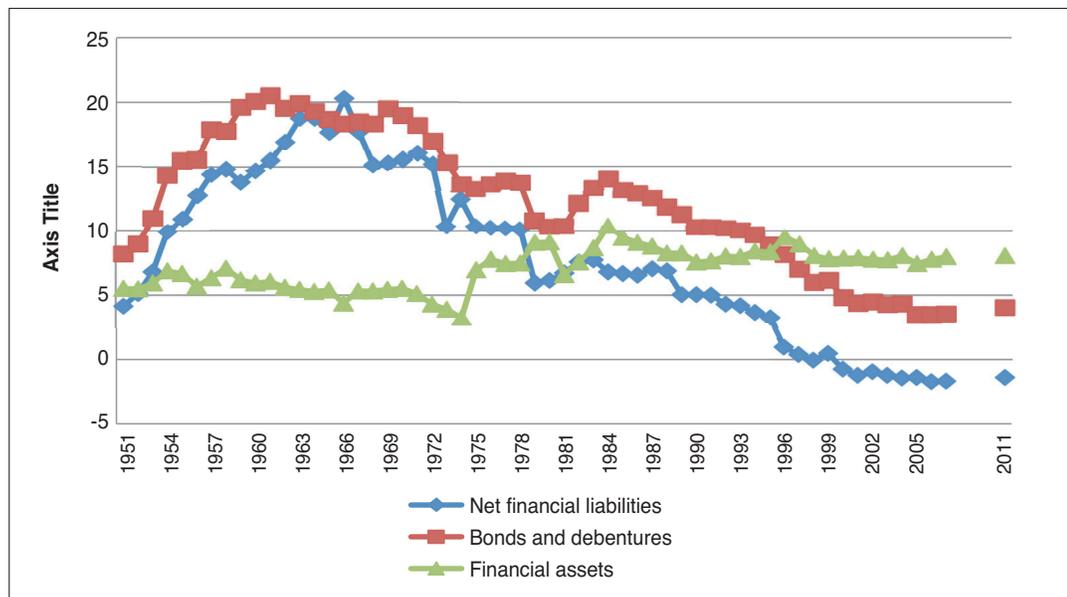
Investment income is the third major revenue source. Investment income includes various forms of the net returns from municipally owned enterprises and utilities (e.g., net income, profits, dividends, interest, etc.), the returns from financial investments of surpluses and reserves, and income from other types of investments. At about 2.5 times the national average, the percentage contribution of municipal investment income is high in Alberta and reflects a greater municipal investment in utilities and enterprises than is the case in other provinces.

In summary, property and related taxes now provide half, and most recently a little more, of own-source revenues. Sales have come to account for about one-third of revenues. Investment income is the next largest contributor. Together, those three sources account for 95 to 97 per cent of the own-source revenue of Alberta municipalities in recent years.

The Financial Assets and Liabilities of Local Governments

Before making the final observations for this section, it is valuable to examine local government debt and financial assets. The data here are for local governments (i.e., school and municipal governments combined) so are not specific to municipal government, although municipal data dominate the later years. Figure 8 shows Alberta local governments' long-term debt (bonds and debentures), financial assets and net financial liabilities as percentages of personal income.

FIGURE 8. FINANCIAL ASSETS AND LIABILITIES OF LOCAL GOVERNMENT AS PERCENTAGES OF PERSONAL INCOME, ALBERTA



The trend in bonds and debenture debt reveals that much of the high capital spending to finance school and municipal infrastructure, particularly in the 1950s and 1960s, was financed by long-term debt. Long-term debt rose from about eight per cent of personal income to about 20 per cent by the late 1950s and declined only slightly during the 1960s. The 1970s, however, was the beginning of a long downward trend in the relative magnitude of long-term debt. In particular, since 1984, the trend has been consistently downward with local bond and debenture debt falling from 14 per cent of personal income to 3.5 per cent in 2007.

Local governments maintain a variety of financial assets for financial management and investment reasons. Those holdings amounted to five to six per cent of personal income up to 1970 but have been at about eight per cent since 1990.

That financial assets exceeded long term debt after 1995 suggests a major transition in the financial situation of local government. That transition is reflected in the net financial liabilities line dropping below zero in 2000 and remaining below zero thereafter.¹⁷ That is, the local governments moved from a net debtor to a net creditor position.

Since the province assumed responsibility for school finance including school infrastructure in the mid-1990s, the more recent local-finances data reflect the municipal government situation alone. The data for 2011 come from Alberta Municipal Affairs and reflect that the purely municipal data are consistent with the Statistics Canada data for local government in 2007. That is, municipal financial assets are about eight per cent of personal income, long-term debt is about four per cent and net financial liabilities (at about -1.4 per cent) reflect a net creditor position.

Local capital spending and debt finance divides into two periods, roughly pre- and post-1980. From 1950 to 1980, local infrastructure spending was high and it was largely debt financed. After 1980, spending on fixed assets was low, debt finance was less important and the ratio of debt finance to personal income declined steadily and substantially. The outcome is that, during the past 15 years, Alberta's local governments and municipalities experienced the lowest levels of long-term debt to personal income witnessed over the 60 years analyzed. In addition, they have gone from having net liabilities equivalent to 15 to 20 per cent of personal income to actually having net financial assets. Clearly, on average, Alberta's municipal governments' infrastructure investments are not being hampered by an existing large debt burden.

SUMMARY AND CONCLUDING OBSERVATIONS

Local governments in Alberta have faced considerable challenges over the past 60 years. Particularly notable has been the provision of schools and schooling and the building of municipal infrastructure to meet the rapid population and economic growth of the 1950s, 1960s and 1970s, a period during which the investment in local government fixed assets proceeded at twice the level it would over the next 30 years. Financing relied heavily on the property tax. During the 1960s, property taxes were exceptionally heavy (as high as seven per cent of personal income for some time), but that burden was eased, especially as provincial grants for schooling became more important over time. Property taxes recently have been lower than during the previous half-century.

¹⁷ That net liabilities become negative later than the 1995 crossover is because bonds and debentures are not the only liabilities of local governments.

Municipal finance itself demonstrates important transitions. While the elevated level of capital expenditures ended with the 1970s, current expenditures (about three-quarters of total expenditures) continued to grow up to 1987. Current municipal spending, which peaked as a percentage of personal income at the end of the 1980s, has since been on a downward trend to at least 2008. Total municipal expenditures have followed a similar path but for a modest uptick from 2006 to 2008, reflecting some resurgence of capital spending associated, at least in part, with expanded provincial infrastructure grants.

The 1990s heralded a transition in municipal finance. Rather than expenditure growing as a percentage of personal income, it has since generally fallen. Since the mid-1980s, capital expenditures have been considerably below previous levels (about 55 per cent of the 1951–83 average), current expenditures have trended downwards, and total municipal expenditures have, since 1996, represented a smaller percentage of personal incomes than in any years since 1951 and 1952. Various factors may have contributed to the contraction. Population growth tumbled in the mid-1980s (but improved by the 1990s), the pace of real income growth fell from about 3.4 per cent annually from 1950 to 1979 to 1.6 per cent during the 1980s and to 0.15 per cent during the 1990s, and debt-servicing costs decreased substantially.

Municipal debt-servicing costs and municipal debt have been on a remarkable downward trend since the late 1980s. Long-term municipal debt declined from about 10 per cent of personal income in the early 1990s to 3.5 per cent in 2007 and, even with the increase in municipal infrastructure spending, to four per cent in 2011. Debt-servicing costs declined from over 20 per cent of municipal expenditures in the mid-1980s to under four per cent in 2008. The relative magnitude of municipal debt has declined, debt-servicing costs have declined and, since 2000, Alberta municipalities have been in a net asset position. That is, on average, the municipalities have no debt.

Alberta municipalities appear to be in a solid, even favourable fiscal position. Debt and debt-servicing costs are exceptionally low. While relying heavily upon property taxes (just over one-half of revenues), sales of goods and services are an important source of revenue (one-third) and significant returns are realized from investments (one-eighth of revenues). Municipal property taxes have been (at about 2.5 per cent of personal income) somewhat above the level of the 1980s, but close to the long-term average. However, with the province taking over school property taxes, the total property tax as a percentage of income has been declining since 1993 and reached 3.5 per cent in 2008. Since 2000, the total property tax burden has been lower than during the previous 50 years.¹⁸

¹⁸ In addition, personal income growth recovered (2.33 per cent annually in the decade to 2010) and personal incomes in Alberta are high. While rising incomes may be seen as easing the municipal tax burden, they also result in new demands for services and can increase costs.

FINANCES IN THE CITIES OF CALGARY AND EDMONTON

Calgary and Edmonton are the two major cities in Alberta. The interest in the finances of these large Alberta cities has prompted this brief overview of their fiscal features. Revenues, expenditures and debt are reviewed for 2011 and, so as to provide some temporal dimension, we include some comparisons to 1996.¹⁹ A note on the property tax distribution between residential and non-residential properties concludes the section.

Revenues

Calgary and Edmonton, like other cities, obtain revenues from a variety of sources.²⁰ Those sources are summarized in Table 1 for 2011. Because the populations differ, the amounts are reported in per capita terms. In 2011, per capita revenues of the two cities were essentially equal: \$3,431 in Calgary and \$3,437 in Edmonton. The distribution of revenues among the various sources is similar. Municipal property and related taxes are the major revenue source, but account for less than 40 per cent of revenues. Sales of goods and services and transfers are the other two major sources. Sales provided 25.8 per cent of revenue in Calgary and 19.5 per cent in Edmonton. Transfers represent about 20 per cent. These three sources provided over three-quarters of total revenues. Investment income is important in these two cities with a contribution of 6.1 per cent in Calgary and 10.8 per cent in Edmonton. Contributions from developers relating to land development provided about six per cent in both cities. Fines, penalties, licences, permits, and the like generate a small amount, less than four per cent, while franchise fees on public and private utilities in Edmonton contribute 4.1 per cent of the city's revenues.

The comparable 1996 data are not presented here, but significant differences between the two years can be noted. First, real per capita city revenues rose in both Calgary and Edmonton, increasing, as a percentage of average personal income, from 6.4 to 7.1 per cent in Calgary and from 5.9 to 8.6 per cent in Edmonton.²¹ Second, transfers were small in 1996, providing only 4.5 and 3.1 per cent of revenue, in the respective cities, in contrast to approximately 20 per cent in 2011. Third, as demonstrated in Table 2, there are notable changes in the property taxes. Those developments are discussed in the following paragraph.

¹⁹ For insight into the trends from 1988 to 2007, see: LeSage Jr. and McMillan, "Alberta: Municipal" (particularly pages 46-55).

²⁰ For information on the revenues, and expenditures of selected other Canadian cities, a convenient reference is the Canadian Tax Foundation's *Finances of the Nation*. Karen Treff and Deborah Ort have authored the recent annual issues.

²¹ Per capita personal incomes are larger in Calgary than in Edmonton.

TABLE 1. REVENUE SOURCES OF THE CITIES OF CALGARY AND EDMONTON, 2011

	2011			
	Calgary		Edmonton	
	%	\$ per capita	%	\$ per capita
Net taxes for municipal purposes	39.2	1,345	34.5	1,186
Sales of goods and services	25.8	886	19.5	670
Transfers	17.6	603	21.5	739
Investment income	6.1	210	10.8	371
Fines and penalties	1.9	64	1.7	60
Licences, permits and fees	2.0	68	1.8	62
Franchise fees		0	4.1	141
Developer contributions & donations	6.5	223	6.0	207
Miscellaneous	0.9	32		
Total	100.0	3,431	100	3,437
Total Revenue (millions)	3,742.9		2,791.9	
Population		1,090,936		812,201
Per cent of personal income		7.1		8.6

Sources: City Annual Reports.

TABLE 2. PROPERTY TAXES IN CALGARY AND EDMONTON, 2011 AND 1996

	Calgary		Edmonton	
	\$ per capita	% of personal income	\$ per capita	% of personal income
2011				
City taxes	1,345	2.80	1,186	2.97
Provincial school taxes	577	1.16	434	1.09
Total	1,922	3.95	1,620	4.06
1996 (in 2011 dollars)				
City taxes	926	2.20	942	2.52
Provincial school taxes	634	1.50	631	1.69
Total	1,560	3.70	1,573	4.21

Note: The data are for property and related taxes, including grants in lieu of taxes.

Significant changes occurred in the property and related taxes in Calgary and Edmonton between 1996 and 2011. First, note the city taxes. While in nominal terms they almost doubled, in real terms they increased almost by almost half in Calgary and by one-quarter in Edmonton but, in both cities, the increase relative to average personal income has been more modest — from 2.2 to 2.8 per cent in Calgary and from 2.5 to 3.0 per cent in Edmonton. On the other hand, provincial school taxes have become less important. In real per capita terms, provincial school taxes have declined²² and so, have diminished even more in relation to incomes — from 1.5 per cent to 1.2 per cent in Calgary and from 1.7 to 1.1 per cent in Edmonton. The combined effects of the changes in the city and provincial property taxes have meant that total property tax burdens have changed relatively little. In Calgary, the total property tax bill has increased from 3.7 to 3.95 per cent of personal income. In Edmonton, the average per capita property tax has increased by only \$47 (2011 dollars) or three per cent, and has actually declined slightly as a percentage of personal income (from 4.21 to 4.06 per cent).

²² In Edmonton, the per capita school taxes were constant in nominal dollars.

Expenditures

The revenue side of municipal budgets is not meaningful without comparing it to the expenditure side, which reflects the responsibilities and activities of the municipal government. The major expenditures of Calgary for 2011 are shown in Table 3. Edmonton's expenditures are not reported because it categorizes expenditures differently in its reports and because its pattern is very similar to that of Calgary's.

Calgary reports nine major categories of expenditures in 2011. Transportation, including public transit and roads, is the largest item accounting for 22.1 per cent of total expenditures. Protective services — police, fire and EMS — is the next largest at 18.1 per cent. General government and environmental services are of a similar magnitude at 15.3 and 13.4 per cent. Environment includes water and waste management. General government encompasses the legislative and administrative activities common to all city operations. Recreation and culture is the next largest item at 11.7 per cent. Expenditures in these five areas account for 80 per cent of expenditures. Electric, real estate, (other) public works and social development make up the rest. With social development (social housing and community/social development) at 4.8 per cent, the distribution of expenditures in Calgary illustrates the minor role of Canadian municipalities in delivering social programs and their main responsibility for the “hard” (sometimes referred to as housekeeping) services to communities.²³

The provision of local infrastructure is an important role of municipal government. In addition, capital expenditures are often financed by debt.²⁴ Information on capital expenditures and debt are reported in Table 4 for both Calgary and Edmonton for 1996 and 2011. Capital acquisitions represented about 40 per cent of city expenditures in 2011, up from about 20 per cent in 1996. Real (2011-dollar) per capita capital outlays increased from about \$450 to about \$1,400 and approximately tripled as a percentage of personal incomes.²⁵

TABLE 3. EXPENDITURES OF THE CITY OF CALGARY, 2011

	2011	
	%	\$ per capita
Protective	18.1	566
Transportation	22.1	691
Environmental	13.4	419
Social development	4.8	149
Recreation and culture	11.7	366
General government	15.3	477
Public works	8.1	254
Real estate services	4.9	152
Electric	1.7	52
Total (operating & capital)	100.0	3,127
Population	1,090,936	

Source: City annual reports.

²³ Municipal governments in Ontario are more involved in social programs than are municipalities in the other provinces.

²⁴ Effectively, municipalities can only borrow to finance capital assets; that is, they can issue long-term debt only for capital purposes.

²⁵ A small portion of capital acquisitions are not purchased but donated or contributed, normally by property developers.

TABLE 4. TOTAL EXPENDITURE, CAPITAL ACQUISITION AND LONG-TERM DEBT, CALGARY AND EDMONTON, 1996 AND 2011

	2011		1996	
	\$ per capita	% of personal income	\$ per capita (2011 \$)	% of personal income
Calgary				
Capital Acquisition	1,359	2.8	432	1.0
purchased	1,187			
contributed	172			
Debt	3,065	6.4	2,615	6.2
tax/levy supported	1,237	2.6	1,246	2.9
Edmonton				
Capital Acquisition	1,450	3.6	463	1.2
purchased	1,300			
contributed	150			
Debt	2,430	6.1	1,732	4.6
tax/levy supported	1,651	4.1	443	1.3

Sources: City annual reports and Municipal Affairs' Municipal Financial Information System.

Debt has increased in both cities, but relatively less so in Calgary, which had a higher debt in 1996. As a percentage of personal income, the magnitude of the long-term debt in Calgary hardly changed and remains, at \$3,065 per person, just over six per cent. Debt supported by general taxes and special (e.g., improvement) levies, was constant in real per capita dollars at about \$1,240. The difference in the two amounts is primarily utility-related debt financed by utility charges. In Edmonton, the real dollar per capita debt rose from \$1,732 to \$2,430 and from 4.6 to 6.1 per cent of personal income. More substantial was the increase in tax- and levy-supported debt, which rose from \$443 to \$1,651 per person as a result of investments in transportation, drainage systems and land and buildings. The real per capita net book value of tax-supported capital assets however, increased 8.7 times between 1996 and 2011.

A Note on Property Taxes

Property taxes are paid on both residential and business (commercial and industrial) property. It is interesting to note the allocation of the property tax between the two classes. Calgary provides that information in its annual report. In 2011, 45 per cent of the property and related taxes levied were paid on residential property, 45 per cent were paid by non-residential property and almost 10 per cent came from grants in lieu of property taxes (see Table 5). While Edmonton does not provide this detail of information, a back-of-the-envelope calculation suggests the residential-business split there also approximates 50:50.

TABLE 5. RESIDENTIAL AND NON-RESIDENTIAL PROPERTY TAXES IN CALGARY AND EDMONTON, 2011

	Calgary	Edmonton
Percentage of Property Tax Revenue^a		
Residential	45	n/a
Non-residential (private)	45	n/a
Grants in lieu	10	n/a
Percentage of Assessments^a		
Residential	78.6	75.3
Non-residential	21.4	24.7
Municipal Mill Rates^b		
Residential	3.205	4.678
Non-residential	11.510	14.059

Sources: a) City annual reports; b) Alberta Municipal Information System.

The distribution of property assessments does not match the tax share. The ratio of residential to non-residential assessments in 2011 was 78.6:21.4 in Calgary and 75.3:24.7 in Edmonton. The 50:50 distribution of the tax burden occurs because tax rates differ between the two types of property. In Calgary, the municipal residential rate was 3.205 mills and the non-residential rate 11.510 mills. In Edmonton, the municipal residential rate was 4.678 and the non-residential rate 14.059.²⁶ The higher non-residential rates result in more revenue per dollar of non-residential assessment than is collected from the residential property tax.

Higher rates of taxation on non-residential properties are the norm in local government finance.²⁷ The practice, however, has been criticized.²⁸ Studies indicate that relative to the costs of municipalities servicing non-residential properties, business property is typically overtaxed.²⁹ Lower rates on residential properties appeal to the majority of voters. However, in varying degrees and in varying ways, business may be able to shift the property tax burden (e.g., to consumers, workers and land owners), so the amount and distribution of the benefit of heavier taxes on business to local residents is ambiguous.

²⁶ Edmonton stopped levying a separate business tax after 2010 but compensated, at least in part, by increasing its non-residential property tax rate.

²⁷ To illustrate, across Alberta municipalities, the average non-residential municipal tax rate in 2011 was 1.73 times the average residential (and the equal farm) rate. The provincial school property tax rate on residential property is also larger than the rate on residential and farm property; 1.59 times greater on average in 2011. Non-residential assessments (i.e., not residential or farm) are about 35 per cent of the total assessments in Alberta.

²⁸ For a review of this issue, see: Harry M. Kitchen, *Municipal Revenue and Expenditure Issues in Canada*, Tax Paper No. 107 (Toronto: Canadian Tax Foundation, 2003).

²⁹ Over-taxation relative to benefits or cost of services provided is most clear when school property taxes are included. However, when looking only at municipal taxes and services, one study observed that non-residential property required 40 per cent of municipal expenditures, and that municipal property taxes (i.e., excluding the school property taxes) "...approximate, in a crude fashion at least, a benefits-based local tax" in the Ontario cities studied (see: Kitchen, *Municipal Revenue*, 109-110).

Concluding Observations

In most ways, Calgary and Edmonton are reasonably representative of other large cities in Canada. Their revenues are diverse, as are their expenditure responsibilities, and both are considerable in aggregate. Property taxes, while the major single source of revenue, account for only about 40 per cent of total revenue. Also, because residential property taxpayers contribute about half of total property and related taxes, residential property taxes contribute about 20 per cent of total revenue (and similarly contribute to the costs) of municipal government in these cities. Infrastructure is a major responsibility of municipal governments and outlays for capital acquisition represented about 40 per cent of expenditures in 2011. While Calgary and Edmonton have experienced the challenges of coping with growing populations and of catching up after low rates of investment in infrastructure in the 1990s, city property taxes (at 2.8 per cent of personal income in Calgary and 3.0 per cent in Edmonton) are only somewhat greater in 2011 than in 1996. Furthermore, the total (municipal and school) property tax burden (3.95 and 4.06 per cent of personal income respectively) has hardly changed. Also, the per capita debt, \$3,065 in Calgary and \$2,430 in Edmonton, is relatively modest at just over six per cent of personal income and is a fraction of the value of the capital assets that it helped to finance.

The recent fiscal developments in Calgary and Edmonton generally parallel the situations of Alberta municipalities as outlined in the historical section of the paper. From 1996 to 2011, the magnitudes of the municipal property taxes relative to income of the two cities have increased somewhat, while those of municipalities province-wide have been essentially constant. However, the total property tax burden, municipal plus provincial school, has been quite stable at historically low levels. Infrastructure spending in both cities has increased sharply recently as it has in other municipalities and it now represents a larger share of total outlays. Municipal debt has risen in Calgary and Edmonton but not relative to personal income.³⁰ Thus, as for Alberta municipalities generally, the fiscal positions of Calgary and Edmonton are sound. The property tax is not being stressed and the debt is definitely manageable.

³⁰ City debt did increase relative to income in Edmonton, but from quite low levels in 1996. Also, due to substantial holdings of utility-related financial assets, Edmonton's net financial asset position was positive in 2011 (like municipalities province-wide), while Calgary's net financial asset position was negative.

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Melville McMillan is a Professor Emeritus in the Department of Economics and a Fellow of the Institute of Public Economics at the University of Alberta. He served as Chair of the Economics Department from 1987 to 1997. His BA and MSc are from the University of Alberta and his PhD is from Cornell University. He was on the faculty of the University of Wisconsin (Madison) before joining the University of Alberta in 1975. McMillan's research and teaching interests are in public economics and, in particular, urban and local economics, fiscal federalism, and the demand for and supply of public goods and services. These interests were the focus of his research while on leaves at the Australian National University, Canberra and at the University of York, England. He has published extensively in these areas and has also advised governments and organizations nationally and internationally (e.g., the World Bank). From 1994 to 2011, he served as a faculty association representative on the Sponsors Working Group of the Universities' Academic Pension Plan. Although "retired", Melville McMillan remains actively involved in academic and policy matters and is usually found in his office in the Department of Economics. Further details are available at <https://sites.google.com/a/ualberta.ca/mel-mcmillan/>.

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