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THE FISCAL CHALLENGES FACING ALBERTA'S MUNICIPALITIES

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ALBERTA FUTURES PROJECT PRE-PUBLICATION SERIES

Alberta has a long history of facing serious challenges to its economy, including shocks in the form of resource price instability, market access constraints, and federal energy policies. However, the recent and current challenges seem more threatening. It seems that this time is truly different.

The collapse of oil and gas prices in 2014 combined with the rapid growth of U.S. oil production, difficulties in obtaining approval for infrastructure to reach new markets and uncertainty regarding the impacts of climate change policies world-wide have proven to be strong headwinds for the province's key energy sector. Together, the negative effects on employment, incomes and provincial government revenues have been substantial. To make matters worse, in early 2020 the Covid-19 pandemic struck a major blow to the lives and health of segments of the population and to livelihoods in many sectors. The result has been further employment and income losses, more reductions in government revenues and huge increases in government expenditures and debt. These events, combined with lagging productivity, rapid technological shifts, significant climate policy impacts and demographic trends, call for great wisdom, innovation, collective action and leadership to put the province on the path of sustainable prosperity.

It is in this context that we commissioned a series of papers from a wide range of authors to discuss Alberta's economic future, its fiscal future and the future of health care. The plan is that these papers will ultimately be chapters in three e-books published by the School of Public Policy. However, in the interest of timeliness and encouraging discussion, we are releasing selected chapters as pre-publications.

1. INTRODUCTION

A series of shocks—the decline in oil and gas prices and pandemic-related disruptions to economic activity and employment—have buffeted the Alberta economy and taken a toll on the provincial government’s finances. The Government of Alberta has a structural deficit, exacerbated by pandemic-related expenditures and revenue reductions. Given the increase in provincial government debt, its pre-existing structural fiscal imbalance, and the prospects for slower rates of economic growth, Albertans are facing a lengthy period of fiscal restraint.

While the media have focused on the provincial government’s financial situation, the downturn in the economy and the provincial government’s fiscal adjustments will have important implications for municipal governments in Alberta. Prior to the pandemic, the balance between residential and non-residential property and business taxes had become an issue, especially in Calgary. Further, the oil and gas industry has voiced concerns about the heavy property tax burden levied by rural municipalities. Conversely, the rural municipalities have complained that some oil and gas companies have stopped paying their property taxes altogether.

Given space constraints, we are unable to deal with the full range of fiscal issues that municipal governments are facing because of the downturn in the economy and the reduced prospects for economic growth. Accordingly, we will focus on two issues—the balance between residential and non-residential taxes, especially in Alberta’s cities, and the taxes on linear property that the rural municipalities levy on the oil and gas property. An appreciation and understanding of the larger context in which all municipalities operate is important, and we begin with an overview of the municipal governments’ expenditure responsibilities, revenue sources, assets, and debt levels.

2. MUNICIPAL RESPONSIBILITIES AND EXPENDITURES

Municipal governments provide numerous goods and services vital to the liveability and commercial success of their communities. Several activities come to mind immediately: roads and streets, fire (and often police) protection, waste management, recreational facilities. Such services are costly and require considerable resources. As such, they are the main focus of our attention in this overview.¹

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In Alberta, the roles of municipalities (in particular their purposes, powers and capacity) are defined by the *Municipal Government Act* https://www.qp.alberta.ca/1266.cfm?page=m26.cfm&leg_type=Acts&isbncln=9780779823567. Note that while the major financial functions and levies stand out, the municipal power to regulate via bylaws is also an important tool in managing activities for community wellbeing, although it is one largely neglected here.

An initial and brief comparative perspective on municipal functions is provided by Statistics Canada data.² Looking at the Alberta data for 2019, the distribution of expenses by function was: general public service (17.4 per cent), public order and safety (16.9 per cent), economic affairs (27.4 per cent), environmental protection (9.3 per cent), housing and community amenities (10.6 per cent), health (0.4 per cent), recreation/culture (15.1 per cent), and social protection (2.9 per cent). These allocations were quite stable over the prior decade. Alberta's allocation across functions is quite similar to the averages across the nine other provinces other than that economic affairs (i.e., primarily transportation) is highest in Alberta. Notable differences among the provinces are that social protection represents about 24 per cent of expenses in Ontario (and 4.2 per cent in Quebec) versus essentially zero elsewhere, Nova Scotia's municipalities contribute to education (4.6 per cent), and Nova Scotia and Ontario municipalities have just over five per cent of expenses allocated to health. It is unusual for provinces to require that municipalities contribute to social protection, education or health, which are customarily provincial functions.³

Data from Alberta's municipal financial information returns for 2019 provides more detailed information.⁴ The distribution of expenses among functions is general government (14.2 per cent), protective services (17.5 per cent), transportation (29.7 per cent), environmental (water and waste, 13.5 per cent), health and welfare (2.1 per cent), planning and development (7.0 per cent), recreation and culture (13.2 per cent), gas and electric (2.5 per cent),⁵ and other (0.3 per cent). Transportation, protection, water and waste, and recreation and culture are the big-ticket items accounting for essentially three-quarters of municipal expenses. Also, for municipalities generally, capital costs are large.⁶ Amortization accounts for almost 20 per cent of expenses but outlays on new capital purchases are 1.8 times amortization and are therefore a major demand on resources. Transportation accounts for over half (55 per cent) of capital purchases. With water/waste and other environmental (21 per cent) and recreational/cultural (10 per cent), these three areas represent 86 per cent of capital purchases.

Averages provide a useful summary characterization of municipalities in Alberta but there are considerable differences by type of municipality that must be recognized. Alberta identifies seven types of municipalities. They are (with population share) cities (70.7 per cent), specialized municipalities (5.8 per cent), municipal districts/counties (11.2 per cent), towns (11.1 per cent), villages (0.87 per cent), summer villages (0.12 per

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See Table 10-10-0024-01. These data are for municipal and other local general purpose administrations (e.g., regional service commissions, library districts, recreational boards). The expenditures reported do not include outlays for capital (or for its amortization). The functions noted are not as detailed as those available from the Alberta municipal data that will be examined later. While having certain limitations, these data provide a convenient insight to trends and to some inter-provincial comparisons.

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For further insight on municipal government across Canada see McMillan (2006)

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See Municipal Financial and Statistical Data <https://open.alberta.ca/opendata/municipal-financial-and-statistical-data>. These data on expenses cover more functional areas and the expenses include amortization of capital.

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Not included in gas and electricity are the operations of municipally owned enterprises.

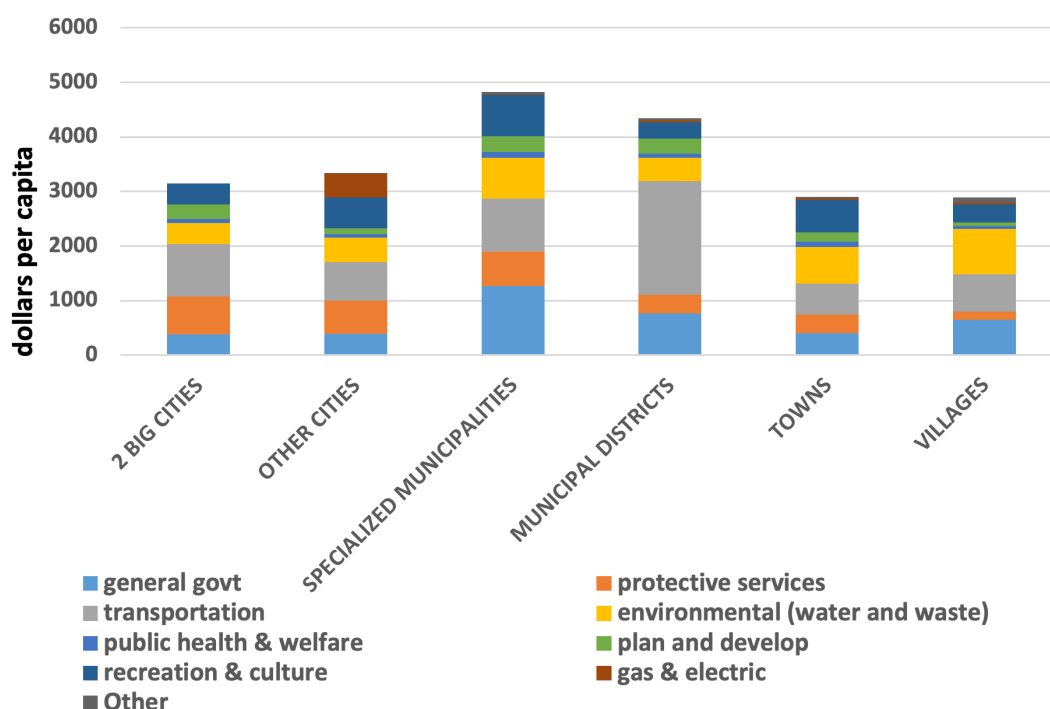
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Municipal capital accounts for more than half the public sector capital stock.

cent) and improvement districts and special area (0.16 per cent). The two largest cities, Calgary and Edmonton, are home to 54 per cent of the municipal (and three-fourths of the cities') population.⁷

The demands for municipal services differ substantially among municipal types. For example, cities have interest in public transit while rural municipalities focus on roads. Some insight into the inter-municipal variation in functions is provided in Figure 1 which reports for the various types of municipalities the per capita expenses by function.⁸ An initial feature to note is that total per capita expenses are considerably greater in the specialized municipalities and in the rural municipalities than in the cities, towns and villages. Also, expenses appear lower in Calgary and Edmonton compared to the other cities but unlike the other cities, the two large cities do not report gas and electricity outlays (in part because some utility services are operated as separate municipally owned enterprises).

Figure 1. Per Capita Expenses by Function and Municipal Type, 2019



Source: Alberta Municipal Affairs, Municipal Financial and Statistical

⁷ One should also be aware of often considerable differences within municipality types. The two large cities are notable but differences occur among other types. Specialized municipalities are an important case. That group of six municipalities include Crowsnest Pass, Lac La Biche and Mackenzie County which are rural but include urban centres; the Municipality of Jasper; Strathcona County which includes the “hamlet” of Sherwood Park; and the Regional Municipality of Wood Buffalo which includes Fort McMurray.

⁸ The summer villages and improvement districts are omitted but cities are divided into the two large cities and other cities.

The per capita expenses of the various functions also vary considerably among the municipal types. General government costs are particularly large in the specialized municipalities and the municipal districts while protective services are greater in the cities and the specialized municipalities (where the averages are influenced by the largely urban centres in Strathcona County and Wood Buffalo). Transportation (road) costs are especially large for the municipal districts where they average 48 per cent of total expenses. Transportation costs are also relatively large (31 per cent of the total) in the two large cities. There, however, public transit amounts to one-half of transportation expenses. On a per capita basis, environmental expenses (primarily water and waste) are comparatively large in the towns and villages. Planning and development are a larger share of costs in the two big cities, the specialized municipalities, and the municipal districts. Recreational and cultural programs are a smaller budget item in the municipal districts where, in many cases, the rural municipality contributes to or shares costs of recreational programs that their citizens enjoy in the neighbouring towns and villages.

The activities of Alberta's municipal governments are dominated by transportation, protection, water and waste, and recreation/culture (totalling about three-quarters of total expenses) and, with general government, comprise about 90 per cent of expenses. Municipal services almost exclusively benefit municipal residents. Exceptions having some spillover benefits include policing, some transportation and recreation, and some housing. The services are typically linked to property. Social programs that have large spillovers and/or involve redistribution (e.g., education, health and social assistance) are minimal. This allocation of responsibilities is widely recommended for municipal governments (e.g., McMillan, 2008). Differences in municipal characteristics cause the magnitudes of the various functions to differ among the types, and sometimes even among individual municipalities. Those differences must be recognized in designing municipal policy.

3. MUNICIPAL GOVERNMENT REVENUES

Alberta's municipal governments obtain revenue primarily from three sources – taxes, sales of goods and services, and grants/transfers from other governments. Statistics Canada reports that in 2019 Alberta municipalities realized 59.4 per cent of revenues from taxes (47.7 per cent from property taxes and 11.6 per cent from other taxes), 19.5 per cent from sales, 17.1 per cent from transfers and four per cent from other sources (e.g., property income, fines, etc.).⁹ Since 2008, the share of revenues from taxes has increased somewhat and that from transfers has diminished. The distribution across revenue sources in Alberta is reasonably similar to the average across the nine other provinces for which taxes generated 52.3 per cent, sales and other revenues 26.5 per cent, and transfers 21.2 per cent. There are, however, some notable variations across the provinces. For example, in British Columbia, transfers contributed only nine per cent but sales and other revenues financed 36 per cent of the total. On the other hand, taxes were the lowest share in Prince Edward Island at about one-third while they were

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Calculations are based on data from Statistics Canada Table 10-10-0020-01.

the largest revenue source in Quebec at 62 per cent. Finally, while this will be examined further below, per capita municipal revenues are the highest in Alberta at \$4047 which compares to the nine province average of \$2363. The range is wide, from \$1113 in PEI to \$3586 in Ontario. Also, municipal property taxes per person are the highest in Alberta at \$2403, with Ontario next at \$1885.¹⁰

Alberta Municipal Affairs data provides much more information on municipal revenues in Alberta. Taxes are the major revenues source at 44 per cent (43.4 per cent property taxes and 0.6 per cent other taxes) with sales at 20.4 per cent and transfers at 21.4 per cent being the other main sources. Income from various other sources—property income (5.9 per cent), permits/concessions (4.5 per cent), fines (1.8 per cent) and other (2.0 per cent) comprise the remaining 14.2 per cent. Total revenue per capita in 2019 was \$4143 per person.¹¹ Transfers from senior governments provide 15 per cent of revenues (the remainder coming mostly as contributions from developers). Transfers from the provincial government account for four-fifths of the transfers from governments. Those transfers are primarily (over 70 per cent) conditional and support municipal capital projects. Approximately one-half (52.6 per cent) of sales and charges come from water and waste fees. The other main contributors to that revenue source are transportation charges (17 per cent), gas and electricity levies (11.3 per cent), and recreation/cultural fees (8.3 per cent). Property taxes are levied on two broad classes of property: residential/farm and non-residential. In 2019, residential/farm property taxes produced 42.6 per cent of municipal property tax revenue and non-residential property 57.4 per cent. Those amount to \$767 and \$1033 per capita respectively. Property owners also pay Education Property Tax averaging \$374 per person for residential/farm and \$214 per person non-residential (for a total municipal and provincial property tax cost of \$2388).^{12,13}

Alberta has an exceptionally large non-residential property tax base as a result of the province's industrial structure. In 2016, Alberta's non-governmental, non-residential net capital stock per person was 3.15 times the average of that in the five other provinces from Quebec to British Columbia and 5.3 times the level in Ontario and Quebec (McMillan, 2019). Looking at equalized assessment values in 2019, residential and farm assessments amounted to 64.7 per cent of the total in the province and non-residential 35.3 per cent. Despite being about a third of assessments, non-residential property (which is typically more heavily taxed by municipalities everywhere) generated the majority (57.3 per cent) of the taxes. That large non-residential base affords a property tax advantage for Alberta residential property taxpayers, but as this is closely related to the oil and gas industry it is distributed rather unevenly among municipalities.

¹⁰ For additional information on municipal finance in the Canadian provinces see McMillan (2006) and Slack et al. (2007).

¹¹ Although the per capita total revenue reported is quite close to that from the Statistics Canada sources, the allocations (notably for other taxes) are quite different.

¹² The Education Property Tax is to support schooling. Currently it amounts to about 30 per cent of operating costs.

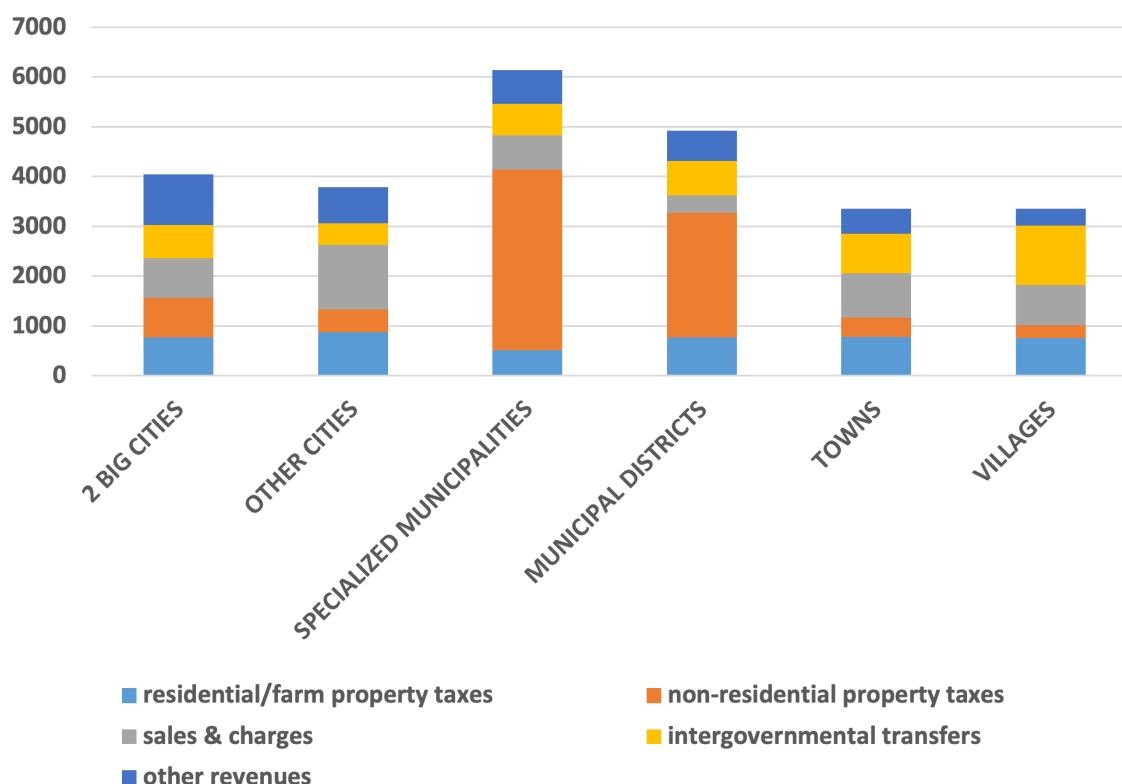
¹³ Municipal residential/farm property taxes amount to 1.27 per cent of household income and the total municipal tax bill to 2.98 per cent. As a percentage of GDP, total municipal taxes are 2.22 per cent.

Differences in the revenue sources among municipalities are considerable. Figure 2 shows the main revenue sources by municipal type in dollars per capita. Residential/farm property taxes make a modest contribution to municipal revenues in all classes of municipalities — in none more than one-quarter of the total. On a per capita basis, those taxes are lowest in the specialized municipalities (\$513 on average) and highest in the other cities (\$875). The greatest difference among the municipal types is in the non-residential property tax revenue. Per capita non-residential property taxes are largest in the specialized municipalities (\$3625) and the municipal districts (\$2500) and result in those two types of municipalities having the largest per capita revenues.¹⁴ Non-residential property is composed essentially of land and improvements, machinery and equipment, and linear property (notably, oil and gas wells and pipelines). There are very large differences in the per capita tax revenues from those properties across the municipalities in the two municipal classes that are thought to make large differences in the financial wellbeing of municipalities (see Conger and Dahlby, 2015). Sales and charges generate the greatest per capita revenue (\$1297) in the other cities and are lowest (\$346) in the municipal districts. These revenues result primarily from charges for water and waste services and for municipal gas and electricity services (which explains the low revenues in the rural municipalities). Fees for these services exceed the functional expenses of those services in the other cities. Intergovernmental transfers are, on a per capita basis, largest to the villages (\$1294) and smallest to the other cities (\$436). Otherwise, they ranged between \$622 and \$794. Provincial government grants amount to about three-quarters or more of total grants to each municipal type. Also, these grants are predominately, and especially those to the cities, designated for capital purchases. Capital grants to the cities are directed mostly (about three-quarters) to transportation while those to other classes of municipalities are primarily split between transportation and water/waste services. Ranging between one-quarter and one-third of new capital purchases for most types of municipalities (and over half for villages and summer villages), capital transfers make an important contribution to capital acquisition for transportation, water/waste, and recreation/culture. Various other revenue sources are most significant to the two large cities where they average \$1021 per person.

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Residential/farm equalized assessments are only 32 per cent of the total in the specialized municipalities and 42.8 per cent in the municipal districts. (Farmland is assessed at a “productive” value which is much below market value.) Residential/farm property represents three-quarters of the total assessments in cities and towns and 83 per cent in the villages.

Figure 2. Major Revenue Sources, 2019 (\$ per capita)



Municipal revenues in Alberta are quite well matched to municipal responsibilities. While there may be some further opportunities to levy user fees,¹⁵ sales and charges are used extensively, especially to fund utility services. Transfers are mostly provincial contributions toward the capital costs associated with transportation, environmental, and recreational/cultural services. Those, particularly in the case of transportation, may involve spillovers to non-residents or involve other provincial priorities.¹⁶ Other areas — notably social services/homelessness/social housing — though small in municipal budgets, may require further provincial support since, while municipalities may be effective managers of those programs, they are not well suited as a municipal responsibility. Also, spillovers from local policing in large municipalities potentially call for additional provincial funding.

Though often criticized, the property tax is a good tax for municipal governments with responsibilities as found in Canada (e.g., see Youngman, 2016).¹⁷ While some have argued for expanding municipal government tax powers (especially for cities: e.g., see Kitchen, 2019; and Vander Ploeg, 2008), we have argued elsewhere that other taxes are not required and that the property tax is adequate, responsive and fair (Dahlby and

¹⁵ Opportunities relate especially to the use and financing of infrastructure (e.g., Bird and Slack, 2017) and road and street usage, as charging for that has become feasible (e.g., Lindsay, 2019).

¹⁶ Even so, the capital-operating balance might benefit from reconsideration.

¹⁷ For a broad discussion of the matching of local government finances with responsibilities see Kitchen, McMillan and Shah (2019) and McMillan (2008).

McMillan, 2014 and 2019). Should additional tax room be desirable, that could best be accomplished by reducing (even eliminating) the provincial Education Property Tax as it relates poorly to the benefits that arise from funding education generally.¹⁸ Although it has received much attention, the residential property tax accounts for less than one-quarter of municipal revenues in Alberta municipalities. The disproportionate share of municipal property taxes coming from non-residential property (relative to its share of the property tax base) has been a source of some criticism. Rebalancing may deserve further consideration, but it may be an area in which politics overwhelms economics. Some prominent property tax issues are addressed further below.

4. ASSETS AND DEBT

Municipal governments hold considerable assets and typically have some liabilities. For Alberta municipalities in 2019, 89 per cent of net assets are non-financial (i.e., capital assets) and 11 per cent are net financial assets. Total liabilities, the bulk of which is long-term debt (reflecting the fact that municipalities can only borrow long term for capital expenditures) amounts to approximately one-quarter of net assets. Net assets average approximately \$17,000 per person for cities, towns and villages, \$25,000 for municipal districts and \$34,000 for the specialized municipalities. Part of the assets that municipalities hold are restricted in that they are designated to help fund future outlays, outlays mostly for new capital. In 2019, restricted surpluses averaged over \$3900 per person over all municipalities and the municipalities contributed \$614 per person to restricted surplus accounts.

Total debt, on average, is comparatively modest. On a per capita basis it amounts to about \$2600 for cities, \$1300 for towns, \$800 for specialized municipalities, \$925 for municipal districts, and \$785 for villages. The province establishes debt limits and debt service limits that municipalities must adhere to. Overall, Alberta municipalities are at 40 per cent of their debt limit and 26 per cent of their debt service limit and are therefore well below the maximums. The cities as a group are a little above the provincial average for both limits and the other types of municipalities are well below the average.¹⁹ As with other factors, there is substantial variation among individual municipalities here as well. Excluding the cities, all classes have municipalities without debt but also, and notably among the towns and villages, there are a few municipalities that are testing the limits. Among the cities, the minimum levels are at 14 per cent and the maximum is almost 60 per cent of the debt limit and 75 per cent of the debt service limit.

Overall, in our assessment Alberta municipalities are in a good financial position. Net financial assets are comfortably positive and non-financial assets are substantial. Also, the levels of debt and debt servicing costs are well below the provincially set limits.

¹⁸ The provincial education property tax is a relic of an era when income and general sales taxes did not exist or were not substantial revenue sources.

¹⁹ Towns are a partial exception in that their average level of debt service is approximately at the provincial average for all municipalities.

5. TWO CHALLENGING PROPERTY TAX ISSUES

A commonly held view by commentators and municipal politicians is that municipalities, and especially the large cities, need a wider range of revenues sources because the property tax is no longer adequate to finance municipal services and infrastructure. Another common refrain is that the property tax has serious shortcomings—that it is “inelastic” or unresponsive to economic growth, highly regressive, and impedes economic growth and development. In McMillan and Dahlby (2014), we argued that the alleged inadequacies of the property tax have been overstated. Moreover, the other major sources of tax revenue that could conceivably reduce municipalities’ dependence on the property tax revenues, a local income tax and a local sales tax, have significant shortcomings and in our view are not suitable substitutes for the property tax. Replacing the property tax by a local income tax would require that a large surtax, on the order of 50 per cent, would have to be applied to the provincial income tax. We do not think that a personal income tax increase of that magnitude would be fiscally sound or politically acceptable. A local sales tax that piggybacked on the federal GST would be a low-cost way of implementing a sales tax, but the federal government has ruled out collecting the GST/HST at the local level. A local retail sales tax, as levied by some U.S. cities, would be administratively expensive. It would inevitably be applied to some business inputs, raising business competitiveness concerns. Tax rate differences across municipalities would create incentives for inefficient cross-border shopping. Perhaps most importantly, the income and sales tax fields are already co-occupied by the federal and provincial governments. Allowing another level of government to levy these taxes would reduce transparency and accountability and increase tax base interactions that distort fiscal policy decisions. Our overall conclusion remains the same—the property tax, with all its limitations, should remain the main source of tax revenue for municipalities in Alberta.

The focus should instead be on reforming or adapting the property tax to finance municipalities in Alberta during a period of fiscal restraint and, most likely, slower economic growth. We begin by considering the trend in the residential property tax burden in Alberta because these are the taxes that are of most concern to homeowners. Recent developments have focused attention on the mix between residential and non-residential property taxes. Rebalancing the mix has emerged as an important and challenging policy issue.

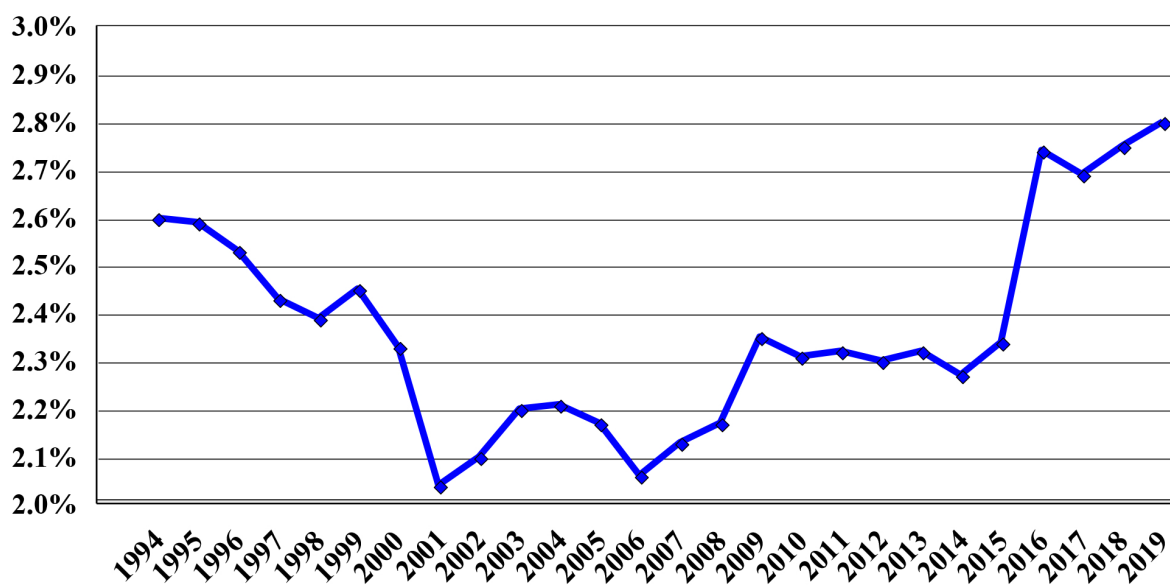
5.1 THE BALANCE BETWEEN RESIDENTIAL AND NON-RESIDENTIAL PROPERTY TAXES

Figure 3 shows that residential property taxes in Alberta were 2.8 per cent of total disposable household income in 2019. This is the highest percentage in the last 25 years.²⁰ This sharp increase has occurred because disposable household income declined by 2.2 per cent between 2015 and 2019, while residential property taxes increased by 17.4 per cent.

²⁰

Although not strictly comparable with these figures, data in McMillan and Dahlby (2014, Figure 1, 3) indicate that property taxes were a higher percentage of personal income in the 1960s than in the last 25 years.

Figure 3 Residential Property Taxes as a Percentage of Disposable Household Income in Alberta



Source: Statistics Canada Table 36-10-0224-10 and Alberta Municipal Financial and Statistical Data

While residential property taxes are very salient for voters, non-residential property taxes have been the larger share of total property tax revenues for most of the last 25 years. As Figure 4 indicates, non-residential property taxes exceeded 50 per cent of total property taxes in Alberta except from 1998 to 2006. As recently as 2015, non-residential property taxes accounted for almost 55 per cent of total property tax revenues. However, since 2015 the share has come down to 53 per cent.

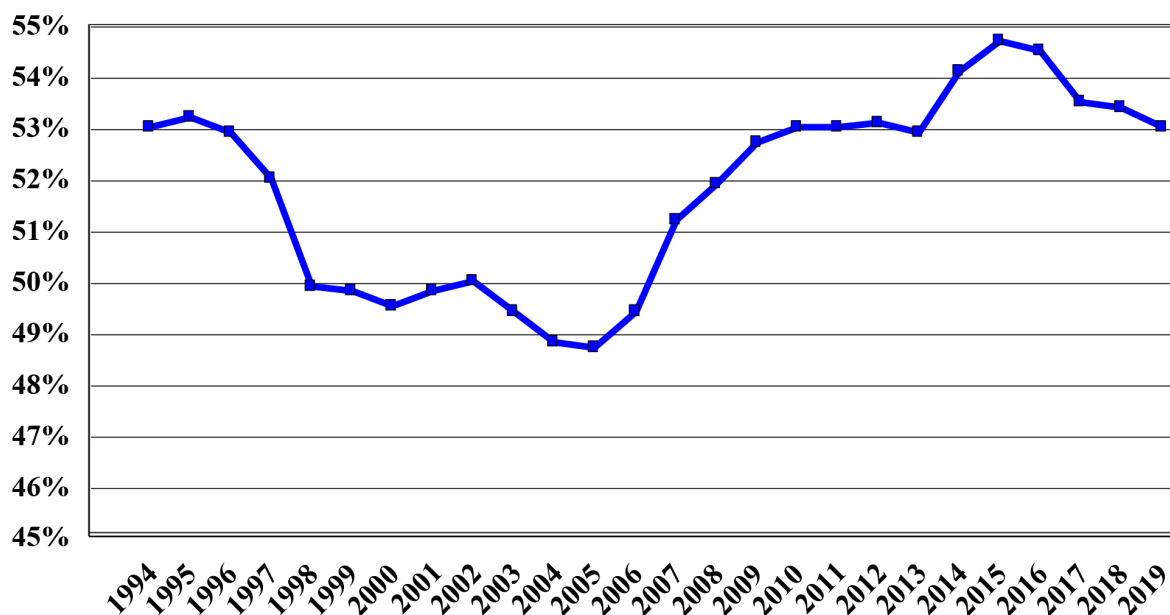
The importance of non-residential property taxation in evaluating the overall competitiveness of the business tax system has been highlighted in a series of studies by the C.D. Howe Institute of the marginal effective tax rates on investment (METR) in 10 major cities in Canada.²¹ In their most recent study, Found and Tomlinson (2020, 4) reported that the METR in Calgary in 2019 was the third lowest, after Montreal and Saskatoon, at 38.4 per cent. The provincial non-residential property tax contributed 4.6 percentage points and Calgary's non-residential property tax contributed 19.2 percentage points to the total METR. In other words, the non-residential property taxes accounted for more than 50 per cent of the total tax wedge.

Whether Alberta's municipalities can continue to rely or should rely on non-residential property taxes to fund municipal services, along with these being an important source of provincial government revenues, will be key questions during the period of fiscal restraint and slower economic growth that we are now entering. In particular, shifting the property tax burden from non-residential property to residential property will no

²¹ The METR is a measure of the tax wedge between the pre-tax rate of return and the after-tax rate of return on a marginal investment. See McKenzie (2016) on the theory and measurement of METR.

doubt be politically challenging given the decline in household incomes since 2015, the reduction in employment during the pandemic, and lower projected rates of future income growth.

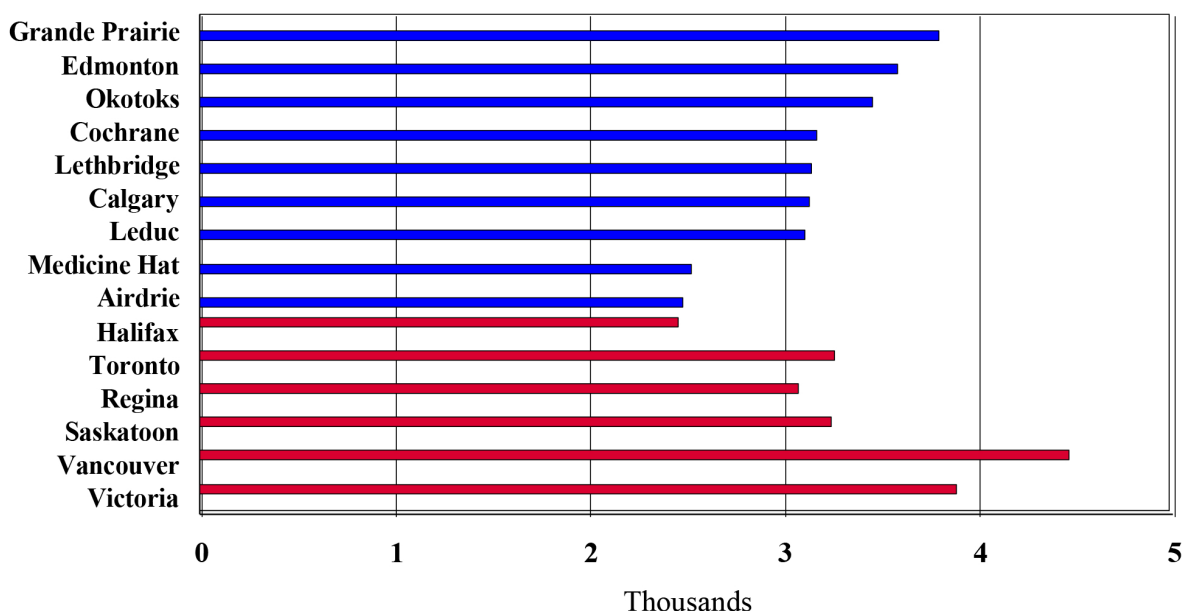
Figure 4 Non-Residential Property Taxes as a Percentage of Total Property Taxes



Source: Alberta Municipal Financial and Statistical Data

As noted earlier, 68 per cent of Alberta's population lived in its 19 cities in 2019. Although all municipalities face broadly similar property taxation issues, it is useful to focus first on the taxation issues in the cities where most Albertans live. While we will deal with the finances of the 19 cities in Alberta as a group, the level and composition of the property tax varies considerable among them. Consequently, it is useful to consider separately the property tax issues in the two largest cities, Calgary and Edmonton where 52 per cent of Albertans live. Figure 5 shows that property taxes on a representative single detached house vary substantially across Alberta cities, with \$3,828 in Grande Prairie and \$2,508 in Airdrie, which makes it difficult to generalize about the burden on residential property taxes across cities. These data indicate that property taxes on a representative single detached home are lower in Calgary than in Edmonton, are comparable to that levied in Toronto, Regina, and Saskatoon, and lower than in Vancouver and Victoria.

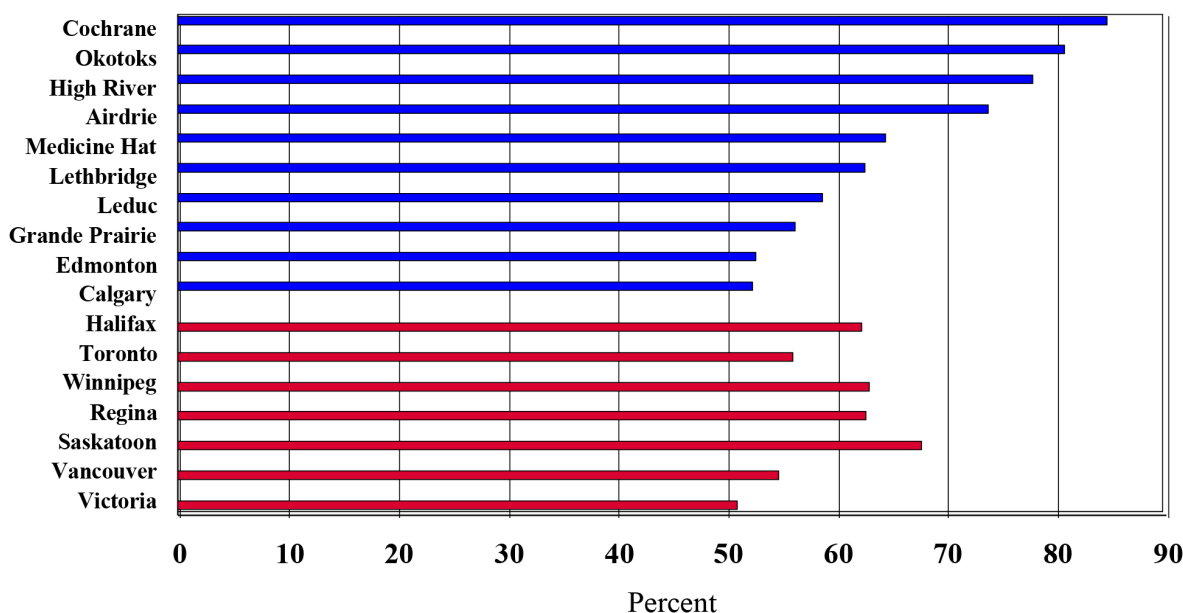
Figure 5 Median Property Tax for Single Detached Houses in 2019 for Selected Cities



Source: City of Calgary (2019).

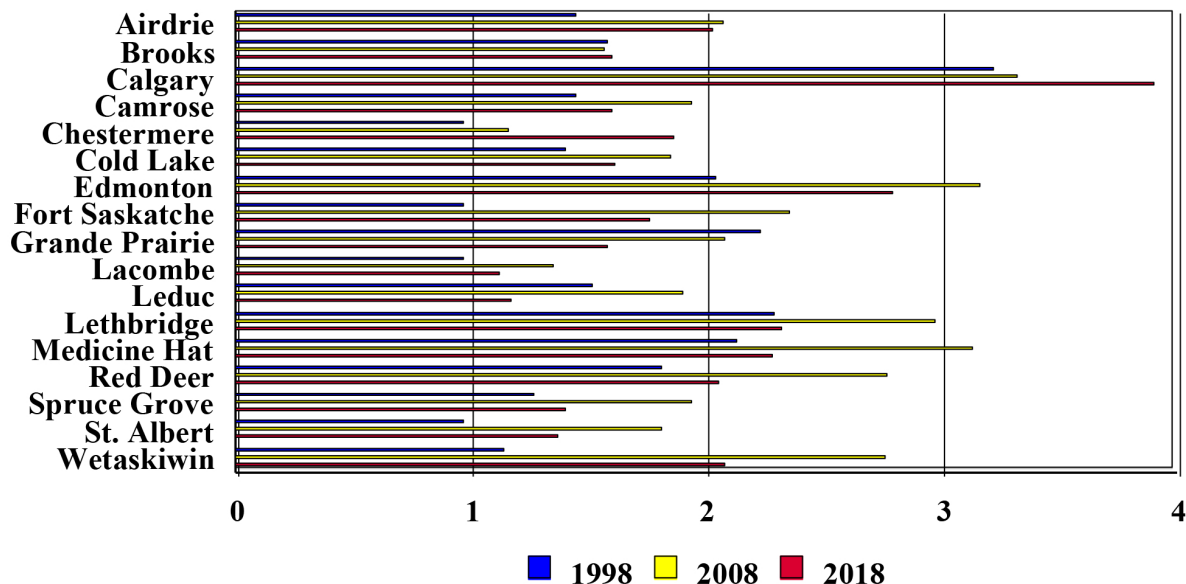
Figure 6 shows that the residential property tax share of total property taxes also varies across cities in Alberta, from 85 per cent in Cochrane to 53 per cent in Edmonton and Calgary. The residential property tax share in Alberta's two largest cities is lower than in the other Canadian cities except Victoria.

Figure 6 Residential Property Share of Total Tax Levy in 2019 for Selected Cities



Source: City of Calgary (2019)

Figure 7 Ratio of Non-Residential to Residential Property Tax Rates, 1998, 2008, and 2018



Source: Alberta Municipal Financial and Statistical Data

Most municipalities levy a higher mill rate on non-residential property than on residential property. Figure 7 shows the ratio of the non-residential mill rate to residential mill rate in the 17 cities. Between 1998 and 2008, most cities increased their non-residential mill rates relative to their residential rates, with the average ratio increasing from 1.61 to 2.27. Between 2008 and 2018, 14 municipalities reduced their ratios. Only Brooks, Calgary, and Chestermere bucked this trend by increasing non-residential mill rates faster than residential rates. The ratio of non-residential to residential mill rates is the highest in Alberta's two largest cities, with a ratio of 4.22 in Calgary and 2.75 in Edmonton in 2019.

A study by Dahlby, Ferde and Khanal (2021) indicates that a higher non-residential property tax rate discourages business investment in building construction. They found that the elasticity of business investment with respect to the effective non-residential property tax rate is about -0.69. Measured at the sample mean effective tax rate and investment rates, this means that a one mill increase in the effective tax rate is associated with a \$39.37 decline in the annual real per capita building construction. A lower stock of capital means that property and income tax bases will be adversely affected in the future, and revenue from these sources will be lower than it otherwise would be.

The adverse economic effects of a property tax increase can be measured by the Marginal Cost of Public Funds (MCF), which is the loss incurred by a society in raising an additional dollar of tax revenue. (See Dahlby (2008) on the theoretical foundations of the MCF, and Dahlby and Ferde (2018) for computations of the MCFs for the three main taxes levied by Canadian provincial governments.) The efficiency loss from a tax rate increase is directly related to how tax bases are affected. To the extent that

tax bases shrink because of tax avoidance, the MCF will be higher. In the case of the property tax, the reduction in the present value of future tax revenues is the key behavioural response that determines its MCF.

Calculations indicate that from the City of Calgary's perspective, the MCF is 1.33. This is relatively low compared to the Dahlby and Ferede estimates of the MCFs for the personal income tax or the corporate income tax in Alberta. One reason why the MCF for the non-residential property tax is relatively low, in spite of the negative impact it has on investment in buildings and structures, is that land accounts for a substantial share of the non-residential property tax base. Since the supply of land is very inelastic, the MCF from the tax on land is close to 1.0. The overall MCF is a weighted average of the tax on land and the tax on investment in building and structures, which is why the overall MCF is relatively low.

The MCF for the City of Calgary only takes into account the impact on the city's non-residential property tax revenues. The decline of property income from the lower capital stock also negatively affects federal and provincial income tax revenues. Incorporating this so-called vertical fiscal externality in the calculation increases the MCF to 1.70. The property tax's comparatively low MCF is an argument in favour of continuing the reliance of municipal government on it.

Calgary's fiscal challenges are particularly acute. Following the steep decline in oil prices in 2014, there were many layoffs by the oil and gas firms and related industries in Calgary. The reduced demand for office space, combined with the increase in premium office space that had been under construction prior to the downturn, has pushed the vacancy rate in the downtown office buildings to around 30 per cent. The decline in the value of the downtown buildings resulted in a \$250 million cumulative reduction in revenues from these properties over the period 2016 to 2019. (City of Calgary 2020, 15-16) The City of Calgary's response was to increase non-residential property tax rates to maintain the share of total property tax revenues that it derived from the non-residential tax base. The increase in the non-residential mill rate led to major increases in the property taxes levied on non-residential property outside the downtown core. To soften the impact of this shift in the tax burden, the City implemented a series of "one time" tax relief measures to keep property tax increases below 10 per cent in 2018, 2019, and 2020. These measures were funded out of the City's "rainy day" fund. Clearly these measures are not sustainable. The City has tried to come to terms with the reality of lower downtown building assessments in 2019 by increasing residential property's share of total property taxes from 48 per cent to 52 per cent.

While this move to rebalance the property tax burden from non-residential to residential property is welcomed, it is not likely to resolve the City's financial problem. Property tax rates on non-residential property remain high and the temporary relief measures cannot be sustained indefinitely. In our view, residential property owners will have to bear a larger share of the total tax burden in Calgary in the future. The long-term goal should be to better align the shares of the residential and non-residential property burden with their shares of the costs of providing them with municipal services. This is consistent with the so-called benefit view of municipal taxation which dominates much of the policy discussion.

A few studies have compared the benefits from municipal services to residential and non-residential property. Mintz and Roberts (2006) estimated that in Alberta non-residential property received about 35 per cent of the municipal services while contributing 47 per cent of property tax revenues. A study by MKK Consulting (2007) for the City of Vancouver attributed 24 per cent of municipal services to non-residential property while contributing 55 per cent of property-based taxes. Further studies of the benefits from municipal services to residential and non-residential property are warranted, but the existing studies indicate that a substantial shift in the property tax burden from non-residential to residential property would be required to bring their shares of the property tax burden in line with their benefits from municipal services.

5.2 TAXATION OF OIL AND GAS INDUSTRY PROPERTY BY RURAL MUNICIPALS

Non-residential property taxes are an even larger share of the property tax burden in Alberta's rural municipalities than in the cities. In 2019, non-residential property taxes were 78 per cent of total property taxes in municipal districts and the specialized municipalities. In particular, the taxes levied on machinery and equipment and linear property represented 58 per cent of property tax revenues and have become a highly contentious issue.

The municipal districts as a group receive substantial revenues largely from the taxation of oil and gas properties and pipelines, although it should be noted that there are substantial differences among the municipal districts in the amount of revenues that they raise from these sources. (See Conger and Dahlby 2015.) The oil and gas industry, especially since the downturn in world oil prices in 2014, has complained about the heavy municipal tax burden. It has become second only to royalties among the payments that the industry makes to governments. The industry has argued that property taxes by Alberta's municipalities are higher than in Saskatchewan and Manitoba, putting Alberta projects at a competitive disadvantage compared to investment in those provinces. The Rural Municipalities of Alberta (RMA) has countered that any reduction in the taxes collected from oil and gas properties will mean higher residential property taxes on rural residents and reduced expenditures on roads and bridges, a key component of Alberta's transportation infrastructure (RMA 2020).

Some oil and gas firms have stopped paying their property taxes altogether. The RMA has estimated that in 2021 approximately \$245 million in property taxes by oil and gas companies have gone unpaid, up from \$173 million in 2020, and \$81 million in 2019 (RMA (2021)). The rural municipalities complain that they are unable to collect these unpaid taxes because provincial legislation does not permit them to place liens on linear property and well sites.

In response to these pressures, Alberta Municipal Affairs launched a review of the assessment of oil and gas properties in early 2020. In October, the Government of Alberta announced some interim measures to provide the oil and gas industry with some tax relief, including elimination of the Well Drilling Equipment Tax, a three-year exemption from property taxes for new wells and pipelines, and lower assessments for less productive oil and gas wells. These measures are expected to reduce municipal and education property revenues by \$80 million in 2021. It also announced that it

would continue to review the regulated assessment system for oil and gas properties over the next three years.

To assess the impact of property taxes on investment incentives in the oil and gas industry, we have calculated the marginal effective tax rate (METR) on capital.²² The METR is a measure of the wedge that the tax and royalty system drives between the pre-tax rate of return that a marginal investment has to earn in order to generate the net-of-tax rate of return that investors need in order to justify the investment. This wedge is expressed as a percentage of the pre-tax rate of return.²³ Previous studies of the METR on oil and gas projects did not include the property taxes that are levied on machinery and equipment and linear property by provincial and municipal governments. To incorporate property taxes in the METR, we use the municipal and provincial mill rates in 2019 as well as an estimate of the present value of the assessment on an additional dollar of investment in a project.

Table 1 shows the key fiscal parameters that are used to calculate the METR on an investment in an oil well in Alberta, British Columbia, and Saskatchewan. The combined federal and provincial corporate income tax rates are for 2020 and include the reduction in Alberta's statutory rate to 8 per cent. The estimates of the effective real sales tax rates on the inputs used by the oil and gas industry in British Columbia and Saskatchewan are based on the data in Crisan and Mintz (2016). For Alberta, we include an estimate of the effective Well Drill Equipment Tax rate. The effective royalty rates on oil are also based on Crisan and Mintz (2016) and are based on WTI of \$50 and operating costs of \$10 per barrel. The property tax rate on an oil well for Alberta is the weighted average of the rural municipal and provincial non-residential mill rates in 2019, where the weights are the municipalities' shares of equalized linear property assessment. The mill rates for British Columbia and Saskatchewan are the estimated average mill rates in these provinces in the Altus Group (2015) report. The present value of the assessment on one dollar of investment in an oil well in Alberta is based on the assumption that the assessed value is 23 per cent of the actual expenditure on the well. For British Columbia and Saskatchewan, the present value of the assessment on a dollar of investment is based on the assessment data in the Altus Group (2015) report.

The last column in Table 1 shows that in Alberta the METR on an investment in an oil well is 31.8 per cent, a bit higher than in British Columbia at 28.9 per cent, and approximately the same as in Saskatchewan at 32.5 per cent. Our analysis indicates that the elimination of the Well Drilling Equipment Tax and the three year exemption from property taxes on a new oil well would only reduce the METR to 0.309.

To summarize, the computation of the METR for an oil well in the three western provinces, which includes estimates of the effective property tax rates, indicates that the marginal tax burdens are similar, with the property tax in Alberta representing only about 10 per cent of the overall tax wedge. While this analysis suggests that high

²² Another issue, not dealt with here, is whether the property tax burden can lead to the pre-mature shutting in of low productivity oil and gas wells.

²³ Chen and Mintz (2012) provide a detailed description of the marginal effective tax rate model for the oil and gas industry.

property tax rates are not a significant deterrent to oil and gas well drilling investment, it must be emphasized that these results are largely driven by the assumption that the regulated assessment is only 23 per cent of the actual cost of the well. The regulated assessment system is complex and, in many aspects, arbitrary. Accordingly, these results must be regarded as preliminary. Further analysis of the property assessment system for the oil and gas industry, including a review of the taxes levied on machinery and equipment, is clearly warranted.

Table 1 Key Fiscal Parameters in Calculating the METR for Investment in an Oil Well

Province	Corporate Income Tax Rate	Effective Provincial Sales Tax Rate	Effective Royalty Rate	Property Tax Rate on Oil Well Assessment	Present Value of Assessment on a Dollar of Investment	METR
AB	0.23	0.0043 ^a	0.278	0.014	2.896	0.318
BC	0.27	0.0150	0.252	0.020	0.970	0.289
SK	0.27	0.0019	0.272	0.025	2.429	0.325

^a Estimate of the effective Well Drilling Equipment Tax rate.

6. SUMMARY AND CONCLUSION

Alberta municipal governments provide goods and services vital to the liveability and commercial success of their communities. These services almost exclusively benefit municipal residents and are typically linked to property. The exceptions are those that have some spillover benefits, for example policing, some transportation and recreation, and some housing. Municipalities have limited responsibility for social programs that have large spillovers and/or involve redistribution. Overall, the municipalities' responsibilities are consistent with the provision of goods and services that benefit residents. Hence, Alberta municipalities are doing what they should and, while arguably there are some potential refinements, there is no fundamental mismatch in the municipal-provincial responsibility assignment.

Property taxes constitute close to 50 per cent of municipal revenues, with sales and user charges and government transfers the other major sources of revenue. This arrangement too is very much consistent with the recommendations of the fiscal federalism literature. In the current circumstances of provincial austerity (e.g., as reflected in reduced transfers, less support for disaster relief, and rural municipalities expected to contribute to policing costs), some might argue for expanded municipal tax sources. Although the property tax has its limitations, we argue against expansion of municipal tax bases (e.g., land transfer taxes, local sales tax) and think that the property tax should remain the main source of tax revenue for Alberta municipalities.

The disproportionate share of municipal property taxes coming from non-residential property and the relatively high mill rates on non-residential properties has been a concern of the business community, especially in Calgary. Although residential/farm property taxes generate less than one-quarter of municipal revenues, rebalancing the property tax burden to bring it more in line with the costs of providing services to the

two types of property is a difficult political challenge at the best of times and especially now, given the decline in household incomes in Alberta and the reduced prospects for economic growth. Nonetheless, we think that this is the direction that policy makers must go. Should such a move suggest that additional tax room is required, we would suggest that the province abandon (especially the residential/farm) school property tax leaving the property tax as a strictly municipal tax.^{24, 25}

The property taxes levied on oil and gas properties by rural municipalities, although long an irritant to the industry, have become a major conflict between Alberta's economic engine and the municipalities that provide key infrastructure and community services that have enabled the industry to thrive. Although property taxes appear to be a small contributor to the industry's tax wedge, the regulated assessment system for oil and gas properties is complex and needs an on-going review to balance the revenue needs of the rural municipalities with the oil industry's competitiveness concerns.

We have only touched on these two challenging fiscal issues in this chapter. The municipalities' face other fiscal challenges —the uneven distribution of non-residential property tax revenues across municipalities, the level of the provincial Education Property Tax, the regulation of the differential tax rates between residential and non-residential property, the assessment of agricultural property, the sharing of municipal services and tax on a regional basis, and the level and allocation of provincial transfers. More in-depth policy analysis is clearly required.

²⁴

Following introduction of the present Education Property Tax in 1994-95, its contribution to school operating costs steadily declined from 51 per cent to 30 per cent in 2006-07 where it has remained. Provincial education property tax revenues were essentially constant at about \$1.2 billion from 1994-95 to 2004-05.

²⁵

Should the provincial government consider the lost education property tax revenues (about \$2.5 billion in total or \$1.5 billion if residential only) beyond its capacity to absorb in other ways, we would recommend offsetting from general sales tax revenues – a general sales tax also being a tax with a low marginal social cost of funds. From the municipal perspective, further opportunities for user fee revenue might substitute for property taxes to some degree.

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