

User charges for Municipal Infrastructure in Western Canada

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1.0 Introduction

Municipalities in Canada are grappling with an increasing requirement for infrastructure that is being driven by several factors, including:

- Expectations from constituents;
- Provincial devolution of responsibility for services;
- Provincially and federally imposed service standards;
- Population and economic growth that requires new or expansion of existing infrastructure;
- Infrastructure that is approaching or has exceeded its end of life-cycle and is in need of replacement or significant repair;
- Climate concerns that put increasing pressure to invest in both mitigative and adaptive infrastructure; and,
- Changing demographics, including aging population, immigration, and increasing ethnic diversity, that brings unique infrastructure demands.

Municipalities bear the burden of these demands because the majority of infrastructure is now planned, built, and maintained by municipal governments. In fact, since the 1960s the municipal portion of infrastructure has grown 12.5 percentage points, from 30.9 percent in 1961 to 52.4 percent in 2002 whereas the federal portion dropped by 16.2 points from 23.0 percent to 6.8 percent in the same period (Tindal et al. 2012, p. 241). This includes such diverse infrastructure as city buildings, convention and sports facilities, police, fire, and ambulance stations and services, libraries, parks, recreations centres, roadways, public transit systems, parking, bridges, sidewalks, streetlights, waterfronts, cemeteries, and sewer, water, storm, and refuse systems. It is important to note that infrastructure is not just related to capital expenditures to create the infrastructure, but also to operating expenditures incurred to operate and maintain the resulting infrastructure.

Municipalities, therefore, face the reality of the complex and joint decision of what infrastructure to build, operate, maintain, and replace and how these decisions should be funded. Municipalities, though, are constitutionally constrained to limited revenue sources. They can finance municipal infrastructure generally through: intergovernmental transfers, borrowing, or

own source revenues.¹ Municipal own-source revenues are typically limited to property taxes, user fees, and regulatory charges (including local improvement or development charges). The funding decision, in essence, boils down to who should bear the burden for the costs. Should it be: users (through some form of user charge or special levy), local taxpayers (through property or related taxes), provincial taxpayers (through provincial transfers or revenue sharing), or federal taxpayers (through federal transfers); and, should it be current users or taxpayers (pay-as-you-go) or future taxpayers (repayment of borrowing). Importantly, the decision of who should pay is not an all or nothing decision: funding for any given infrastructure project can be raised through a combination of current/future and local/non-local taxpayers/ users.

There has been an increasing reliance on the user-pay model to fund municipal infrastructure in Canada. User fees as a source of own-source municipal revenue have more than tripled since 1965 (Tindal et al. 2012, p. 262). However, the application of the user-pay model is constrained by two important factors. First, user charges have very specific legal constraints on them that may be at odds with the nature of the specific infrastructure for which funds are being sought. Second, municipal government is known as the “the most varied form of government in Canada” (Treff and Ort 2013, p. 1:3) which makes it difficult to not only make comparisons of the use of user charges both within and across jurisdictions, but also to make sweeping conclusion about the best way for all municipalities to fund their infrastructure priorities.

These characteristics and constraints mix together to provide a complicated landscape within which municipal infrastructure needs can be and are financed and leads to diverse approaches to financing municipal infrastructure in Canada. In addition, it explains why many municipalities may not adhere to the best practices as outlined in the literature. This paper examines some of the general considerations regarding the constraints on user charges along with specific contextual environments regarding the municipal user charges in Western Canada. The paper begins by setting out the constraints that user charges must meet regardless of jurisdiction and then considers the specific jurisdictional constraints in two Western provinces. The discussion focuses on Alberta and British Columbia as these two provinces, despite being neighbours, have very different environments within which municipalities operate leading to different reliance on and uses of user charges. The paper concludes by discussing some of the comparative complications that arise.

2.0 User Charges

The phrase “user charge” generally refers to some form of payment by a user that is directly linked to the use of or rights associated with resources, infrastructure, goods, and services. At the municipal level in Canada, there are, in general, only two types of delegated revenue authorities that meet this general definition of a user charge: user fees and regulatory charges.

As discussed in Athaus, Tedds, and McAvoy (2011), Farish and Tedds (2014), and Alhaus and Tedds (2016) user fees and regulatory charges in Canada have very strict legal limitations on them as a revenue tools. These limitations, which will be summarized below, have developed through Canadian case law, which means two important things. First, the limitations apply

¹ P3s provide another alternative, but these have not yet been used extensively at the municipal level in Canada. The topic of P3s is covered in Chapter 8.

generally in Canada, to all levels of government in all provinces and territories. Second, similar limitations may not exist in other jurisdictions, like the United States and Switzerland.

2.4 *User Fees*

In Canada, a user fee is: (1) a charge for a publicly provided good or service, (2) where the revenues from the fee are solely used to offset the costs of providing the good or service, and (3) the size of fee is dictated by the cost of providing the good or service (Althaus and Tedds 2016, p.61). These conditions have several implications for the design, implementation, and use of user fees in Canada.

First, the revenues from the fee must be solely used to offset the cost of providing the good or service for which the fee is levied (Althaus, Tedds, and McAvoy 2011, p. 547; Althaus and Tedds 2016, pp. 54-55). This means that the revenues from user fees cannot be deposited into general revenues to offset general expenditures, but must be earmarked and spent purposefully. There is no requirement for the cost-recovery to be complete. Costs may only be partially recovered through the revenues generated from a user fee, but, by extension, that shortfall in revenues cannot be made up from revenues from other user fees.

Does it mean that each and every user fee needs its own account as defined by municipal budgeting and accounting standards? There is no specific requirement in the case law that the revenues from each user fee must be physically placed into its own user fee specific account (Althaus and Tedds 2016, p.55). That said, some judges adhere to the strict interpretation of the requirement to have a specific account (Farish and Tedds 2014, p.651). Therefore, the best approach would be to use a specific account. However, when multiple user fees are at play the added costs of having to maintain specific accounts for each and every fee may be prohibitive (though these costs can be factored into the size of the user fee). In this case, a general user fee account may suffice. In this case, there is a need to track the money collected along with how the money is spent.

What costs can be included for recovery by a user fee? Canadian courts have made it clear that governments are limited to the recoupment of actual costs (Althaus and Tedds 2016, p. 92). This means that a municipality is not at liberty to book any costs it chooses. It must follow accounting rules and procedures and not attempt to mask a surplus through the booking of truly unassociated costs. It also implies that including non-financial costs such as externalities and opportunity costs (costs favoured by economists to be included in any cost assessment) for the purpose of determining costs is likely not acceptable.

Second, there must exist a connection between the cost of the good or service and the fee charged (Althaus and Tedds 2016, p.55). The best way to explain this limitation is through example: if the cost of providing the service to each user is a flat amount, the fee cannot vary by user. That is, if the cost of providing the good or service is fixed, then the user fee associated with that good or service itself must also be fixed and not vary by user or units (Farish and Tedds 2014, p. 643). The take away is that there must be a clear rationale for a variable fee and the clearest rationale would be related to varying costs.

Third, there must exist a reasonable connection between the fee and the good or service for which the fee is being charged (Althaus and Tedds 2016, pp. 56-59). This leads to several limitations on user fees. The most important is that the revenues generated from a user fee cannot exceed the costs of the good or service provided. That is, while both partial and full cost-recovery are permitted, user fees, by law, cannot be used to generate large or ongoing surpluses. The qualifiers on the presence of a surplus are important. Canadian courts acknowledge that costs and consumption can change in ways that cannot be predicted *a priori* and often adjustments cannot be made in the short-term to ensure that surpluses are not generated. This means that small or sporadic surpluses are permissible so long as they are accidental or unintentional. Surpluses that are, instead, an intentional design feature of the user fee regime are not permitted.

Another related limitation is that there must exist a tight link between the activity charged for and the activities funded by the user fee revenues (Farish and Tedds 2014, pp. 661-662). An example is helpful to clarify this limitation (Althaus and Tedds 2016, p. 155). User fees for residential garbage collection must be used to offset the cost of providing residential garbage collection, including pick-up and disposal costs, operating costs, as well as costs incurred to inform consumers about the service. User fees for residential garbage collection cannot, however, be used to offset costs of other municipally provided services that are unrelated to residential garbage collection, like the provision of recreational services. How tight the link needs to be is not yet settled. Can revenues from residential refuse collection be used to fund broader environmental programs, including leaf collection, compost programs, and refuse collection from other municipal services like transit or recreation? Can revenue from parking fees be used to upgrade streetscapes, including street lights, sidewalks, traffic calming measures, benches, landscaping, and bike racks? The answer to these questions are not perfectly clear, but both of the cases mentioned are questionable in terms of the tightness of the connection between the activity charged for, the costs incurred, and the activity being funded through the user fee revenues.

In summary, user fees are a charge for a publicly provided good or service where, by legal constraints, the revenues from the fee must be used solely to offset the cost of providing the good or service and the size of the fee is dictated by the cost of providing the good or service. That is, revenues from user fees must be earmarked and spent purposefully and the size of the fee must be supported by actual costs incurred. In addition, user fees cannot be used to generate surpluses. Revenues must match costs incurred and must be used solely to offset costs incurred related to the good or service being charged for. The legal constraints on user fees in Canada make their use to fund capital projects for things like public transit, recreation facilities, water and sewage, and refuse collection potentially problematic, but such fees are ideal to support the operation and maintenance costs of infrastructure. The legal constraints also make user fees use as a general revenue tool or their use to cross-subsidize various public provided goods and services very problematic and doing so would not sustain a court challenge.

What would happen if a user fee was found to be non-compliant with these limitations? Althaus and Tedds (2016, pp. 59-61) detail the consequences. If a charge was found not to be a user fee, it will likely be found to be a tax, the authority for which was likely not delegated to the municipality by the province. In legal terms, the charge will be found to be *ultra vires*. The usual

remedy to such a decision is either for the court to require the municipality to return the money it collected under the charge or, when doing so would create fiscal chaos, for the court to provide a small window for the municipality to amend their charge to make it valid retroactively, assuming amendments would be possible to make the charge consistent with the limitations of a user fee.

2.5 *Regulatory Charges*

Regulatory charges, also known constitutionally as license fees, are an alternative way for municipalities to charge users. There is a lot of confusion around regulatory charges because: (1) they share similar features with user fees; and, (2) some services can be amenable to both types of charges (e.g. parking, dumping). The features of a regulatory charge are detailed in Farish and Tedds (2016, pp. 653-669) and summarized here.

Unlike a user fee, a regulatory charge is not related to the provision of a good or service, but, instead, is related to rights or privileges awarded or granted by the municipality. Regulatory charges are a broad category of charges imposed by municipal and other governments and include such charges as development charges, local improvement charges, removal and dumping charges (e.g. sand, gravel, water, landfill, electronics, and beverage containers), fines, inspections, environmental protection, and licenses (e.g. liquor and animal).

There are four key components to a regulatory charge: (1) a specific regulatory purpose; (2) a detailed code of regulation; (3) actual costs incurred; and, (4) a relationship between the regulation and the person being regulated (Farish and Tedds 2014, p. 658; Althaus and Tedds 2016, p.53). Under a regulatory charge either the revenues are used to recover the costs of the regulatory scheme, in whole or in part, or the size of the charge levied on persons may be set to proscribe, prohibit, or encourage a specific behaviour. If the purpose of the regulatory charge is to change behaviour, then a surplus of revenues may be a permitted outcome.

However, as noted by Farish and Tedds (2014, p. 667) there are two important limitations to the generation of surplus under a regulatory charge. First, there must still be a reasonable relationship between between the charge and the regulation. Second, the presence of a behavioural modification aspect has been found by the courts to mean the regulatory charge meets the criteria of an indirect tax. The authority to charge indirect taxes, however, is not delegated to the provinces and, therefore, cannot be delegated to municipalities. Therefore, a regulatory charge enacted by a municipality must still meet the definition of a direct tax, which, according the courts, means that the objective of behavioural modification as a principal objective of a regulatory charge is not available to Canadian municipalities.

In summary, regulatory charges enacted by municipalities have all of the same limitations imposed on them as user fees, a fact that is clear from examining the last two components of a regulatory charge which are identical to the last two components of user fee as detailed above. That is, user charges in the form of user fees and regulatory charges require that: the revenues from the fee be used solely to offset the costs of providing the good or service; the size of fee be dictated by the cost of providing the good or service; and there must be a narrow link between the charge and the activities to which the revenues be directed. This means that for Canadian municipalities, regulatory charges and user fees differ only in purpose. Both are cost-recovery

tools: a user fee is a charge for a good or service whereas a regulatory charge is for a right or privilege.

If regulatory charges are a tool to recover costs from a right or privilege, are they relevant to fund infrastructure demands faced by municipalities? In a word, yes. There are a number of applicable uses. First, regulatory charges are suitable when there are infrastructure demands driven by development. Municipalities provide the right for developers to develop land for the purposes of residential or commercial development and a detailed regulatory code is required to recover the costs of that right. Development demands expansion of sewer, water, schools, parks, recreation facilities, and roads, among other things and a regulatory charge ensures that the costs of such expansion are levied on the developers and priced into the development, where the price is ultimately born by the users of the development through the price of selling or leasing the developed properties. Second, certain behaviours or characteristics incite infrastructure investments. Dogs, for example, need park space in which to run, amenities that support excrement removal, and animal control resources. Municipalities can require dogs to have an annual license and use the revenues to help pay for these services that are used solely by dog owners. For example, the City of Victoria notes, “Dog licence fees help to offset the costs of operating an animal control and pound service, which shelters, feeds and provides care for lost and injured animals. Dog licence fees also offset the costs of providing dog waste bags in City of Victoria parks.” (City of Victoria, 2016) Third, removal of resources often means that heavy equipment uses municipal roads which decreases the roads lifespan. A regulatory charge imposed on the right to remove the resource can help fund the cost of road provision, maintenance, and replacement.

As noted above, there is some complexity over what is a service and what is a right or privilege and these categories can often be interchangeable. For example, a levy imposed on landfill waste could be either a user fee or a regulatory charge. For a user fee, the charge is for the use of the landfill whereas the regulatory charge is for the right to access the landfill. The same is true for parking, waste, sewer, water, and other related levies. While the lines can be and often are blurred between these two types of user charges, the limitations placed on these charges mean that the blurring may simply pose complexities for comparison purposes. This complexity arises because the levies will be included in different categories and the nature and size of the levy can vary considerably for the same category depending on whether the levy is designed as a regulatory charge or a user fee.

2.6 *Additional Considerations*

The legal limitations on user fees and regulatory charges make them imperfect tools to finance municipal infrastructure. The limitation to cost recovery, where costs are restricted to actual costs incurred, makes it difficult for infrastructure costs to be shared intergenerationally. Instead, user fees and regulatory charges in Canada appear best suited to short-term assets whose benefit accrue to the current tax base within the municipal boundaries. This limitation is also at odds with the nature of municipal infrastructure itself, notably the fact that these projects tend to be big ticket lumpy expenditures for which it is hard to amortize all the costs for or to set the fee or charge to allow the municipality to save for future investments.

A related issue in the use of these revenue tools concerns equity. There are two central principles to considering equity. The first principle is the benefit principle, which can be seen where there is a link between the good or service provided and the benefit the consumer receives. User fees and regulatory charges favour the benefits received principle as in both cases it is the main beneficiary that pays for the resulting infrastructure. However, if the public places a high value on the provision of the good or service and its broad accessibility, the imposition of a user fee or regulatory charge may not be appropriate unless redistribution can be achieved through such tools as discounts or lump sum transfers.

The second principle is the ability-to-pay principle. There are two aspects of the ability-to-pay principle: horizontal equity and vertical equity. Horizontal equity is the concept that two individuals who have the same ability to pay should pay the same amount. Vertical equity is when the burden of payment should be higher for those who have a greater ability to pay. When the financial burden of a service falls more heavily on higher income households, it is referred to as progressive; this is generally the favoured policy direction. When the opposite happens, that is the financial burden falls more heavily on lower income households, the policy is regressive and goes against equity principles. User fees and regulatory charges can often be regressive instruments, because the fee or charge will take up more of the income of a lower income payer than a high income payer. Equity may then seem to favour financing through the use of progressive taxes. Of course, regressivity of user fees and regulatory charges can often be offset by careful attention to implementation, including discounts and increased service provision.

What is particularly important to note is that municipalities are provided with very little guidance from provinces with respect to the limitations on user charges. While large municipalities have the ability to rely on sophisticated internal and external advice, the same is not true of smaller jurisdictions that lack internal capacity. The lack of guidance is further confounded by the fact that most municipal legislation groups fees and charges, often using the word fee and defining it to mean both fees and charges (Farish 2006, pp. 91-92). While academic literature does exist to help guide municipalities, it is scattered across multiple, and often contradictory sources. Providing a clear guidance to municipalities, contextualized to the specific environment they are operating in is well overdue. Farish and Tedds (2014) provide a detailed discussion regarding the definition of and differentiation between user fees and regulatory charges and Althaus and Tedds (2016) have included this information in a comprehensive book accompanied by an online interactive guide for practitioners to work through.

3.0 User Charges in Western Canada

As it was mentioned, these general financing tools operate within very specific jurisdictional contexts that result in varying applications of these tools in different regions. This context is dictated by various institutional aspects, many of which are established by the provincial devolution of powers to the municipalities.

One of the challenges in making comparisons on the reliance on user charges across Canadian jurisdictions is a lack of comparable data on the use of user fees and regulatory charges by municipalities across the various provinces. Statistics Canada (1998-2008) used to provide the *Financial Management System*, which provided annual detailed data on local government revenue and expenditures across Canada. This data series was discontinued in 2008 and replaced

with *Government Finance Statistics* (Statistics Canada 2008-2014). The former series was much more detailed on the expenditure side, but are generally fairly comparable across the broad revenue categories report, including user fees (reported as sales of goods and services). However, in both cases the data series' do not delineate regulatory charges which, from the provided descriptions, appear to be included in different categories that include other taxes. As a result, no comparisons can be made regarding the use of regulatory charges can be made.

Table 1 shows the share of user fees, as a portion of own source revenues, by geographic region for select years over the period 1998-2014. The table shows that municipalities in Ontario have reported a fairly stable reliance on user fees as a portion of their own source revenue, while the other regions show an increasing portion of user fees forming a share of their own source revenues. Overall, the Western Canadian provinces have, and continue, to rely more on user fees as a source of own source revenues than other regions in Canada. As a result, the Western Canadian trend is worthy of greater scrutiny.

Table 1: Share of User Fees, % of Own Source Revenues, Geographic Region, 1988-2014

	Western Canada	Ontario	Quebec	Atlantic Canada
1988	28.3	27.3	18.4	20.4
1998	30.5	25.3	19.0	22.9
2008	31.4	27.7	18.7	23.6
2014	30.6	27.5	24.4	26.3

Source: Data for 1988-2008 calculated from Statistics Canada. 1988-2008. *Financial Management System*. Statistics Canada Catalogue no. 68F0023X. <http://www5.statcan.gc.ca/olc-cel/olc.action?objId=68F0023X&objType=2&lang=en&limit=0>. Annual. Data from 2014 calculated from Statistics Canada. 2008-2014. *Government Finance Statistics*, Table 385-0037.

Table 2 shows how the share of user fees as a share of own source revenues breaks down across the four Western Provinces. The table shows several interesting trends. First, Alberta is the only province in Western Canada that bucks the trend with its municipalities decreasing their reliance on user fees. Second, municipalities in the provinces of Manitoba, Saskatchewan, and B.C. report an increasing reliance on user fees and by 2014 appear to have converged to a common share of between 34-35% of own source revenues. This also makes municipalities in these three provinces the most reliant on user fees by a large amount as compared to all other provinces. Third, it is unclear if the differing reliance on user fees is the result of the devolution of powers or structural differences. Each of the provinces devolves powers to its municipalities in very different ways. In addition, each of these provinces face different geographic and population pressures. For example, not only do the provinces of Manitoba and Saskatchewan have small populations (between 1.3 and 1.15 million respectively) as compared to Alberta and B.C. (between 4.25 and 4.75 respectively (Statistics Canada 2016)), but, as reported in Treff and Ort (2011, pp 1:4-1:14), Manitoba and Saskatchewan have the highest number of municipalities per 100,000 people (16.0 and 80.2 respectively) compared to Alberta and British Columbia (9.4 and 5.0 respectively). If municipalities in Manitoba and Saskatchewan serve a smaller population, then user fees might be higher simply because they are spread across smaller populations.

As a result, it appears to be more appropriate to compare the use of user charges in Alberta and British Columbia. The rest of this paper focuses on these two provinces which have generally devolved similar revenue authorities to their municipalities making comparison somewhat simpler. However, while these provinces share some characteristics, they have pursued distinct paths that have led to different approaches to funding municipal infrastructure and the reliance on user charges.

Table 2: Share of User Fees, % of Own Source Revenues, Western Provinces, 1988-2014

	Manitoba	Saskatchewan	Alberta	British Columbia
1988	23.2	23.6	32.0	27.4
1998	27.1	26.4	31.6	31.3
2008	35.4	26.0	29.8	33.5
2014	34.1	34.9	25.7	34.7

Source: Data for 1988-2008 calculated from Statistics Canada. 1988-2008. *Financial Management System*. Statistics Canada Catalogue no. 68F0023X. <http://www5.statcan.gc.ca/olc-cel/olc.action?objId=68F0023X&objType=2&lang=en&limit=0>. Annual. Data from 2014 calculated from Statistics Canada. 2008-2014. Government Finance Statistics, Table 385-0037.

One of the very different paths followed in each of these provinces is that related to intergovernmental grants which will influence reliance on other revenue tools by municipalities in these provinces. Intergovernmental grants in Alberta account for a much larger share of municipal revenues than in B.C. Intergovernmental transfers in Alberta average 22.8% of total municipal revenues over the 2008-2014 period (Statistics Canada 2008-2014). These transfers are due in part to the 10-year Municipal Sustainability Initiative that was launched in 2007 which is specifically directed to support local infrastructure projects (Alberta n.d.b). B.C. stands in sharp contrast as intergovernmental transfers now amount to less than 5% of municipal revenues.

Another difference pertains to the use of regional districts in B.C. which are not used in Alberta. British Columbia is made up of 29 regional districts. As detailed by Smith and Stewart (2009) and British Columbia (2006), each regional district is like a federation where municipalities within the district are represented on the decision-making regional board. These regional districts provide goods and services that are of a regional nature, including water supply, waste management, recycling, and sewage services, and provide a forum through which regional decisions are made. Regional districts were initially established in an effort to provide a semblance of economies of scale for such infrastructure that is not present in the generally small municipalities that exist outside of Metro Vancouver. Regional districts operate under the user pay principle and cost recovery and are granted a wide range of cost recovery tools, including taxes, user fees, and regulatory charges. What is relevant for the data shown above is that for many services, the Regional Districts charge the municipalities directly for services and then the municipalities then determine how to recoup those charges from the constituents. This means that the regional district can charge its municipalities a user fee for a service (e.g. sewage services, refuse collection), but the municipality is not obligated to pass that charge along to its constituents in the form of a user fee. It could, instead, pass the cost along in the form of higher

property taxes. So the reliance on user fees in B.C. may be more related to the mandate of the regional districts to operate under the user-pay principle rather than the individual municipalities directly charging their constituents user fees.

Both the provinces of Alberta (Alberta 2017) and British Columbia (British Columbia n.d.) release comprehensive annual statistics on revenue and expenditures by local governments within the provinces, including regional districts in B.C.. This provincially provided data not only matches the data available from Statistics Canada, but also provides greater information about expenditures than provided by the Statistics Canada data presented above.²

The data for British Columbia allow for the division of user fees by municipality and regional district. Using the data from 2015 (British Columbia n.d.), user fees account for 52% of own source revenues for regional districts compared to 34% for municipalities. Combined, user fees represent 37% of own source revenues for all local governments (municipalities and regional districts) in B.C. This confirms the previously mentioned supposition that regional districts, given their mandate, do increase the reliance on user fees in B.C., but because regional district comprise a much small share of local government revenues, it does not account for the significant difference in reliance between B.C. and Alberta.

Much like the Statistics Canada data, the provincially provided data does not delineate regulatory charges within its own category. Though Alberta does provide some ability to examine regulatory charges on their own, this is not matched by data available from B.C. Both, however, detail developer charges in a comparable fashion. Using the data from 2015 (Alberta 2017; British Columbia n.d.) a similar trend to user fees is revealed. Developer charges in B.C. represent a 9% share of own source revenues (including both Regional Districts and Municipalities) whereas in Alberta, developer charges only amount to 2.6% of own source revenues. This is an interesting finding at a time when many in B.C., including the provincial government, are eyeing local government developer charges as impeding access to affordable housing. This is because these charges are passed onto buyers in the form of higher housing prices or renter in the form of higher rents Yet, local governments must fund significant infrastructure to service new developments, including parks, schools, and sewer and water systems, though limited revenue tools and narrow tax base. These competing interests are difficult to resolve.

The provincially provided data is also delineated by municipality allowing for comparisons across similar types of municipalities. Table 3 provides share of user fees and developer charges by common types of local government in the provinces for the year 2015. The table shows that the difference in the reliance on user fees between local governments in Alberta and B.C. is predominantly driven by lower reliance on user fees by districts in Alberta. In B.C. the data also shows that Villages and Regional Districts are much more reliant on user fees than other forms of local government. The reliance on user fees by regional districts was discussed above and is likely due to their mandate to favour user-pay models.

² The author first obtained the general revenue data for municipalities and regional districts in each province for the year 2014 and was able to obtain nearly identical results as shown in Table 2. For Alberta, user fees as a share own source revenue was calculated to be 25.9%, compared to 25.7% in Table 2. For B.C., user fees as a share of own source revenues was calculated to be 35.9%, compared to 34.7% I Table 2.

In terms of developer charges, in B.C. these are most likely to be used by cities whereas as in Alberta they are most likely to be used by Towns followed closely by cities. B.C. cities raise nearly 12% of their own source revenues from developer chargers compared to 3% by Alberta cities. This difference in the use of developer charges in these two provinces is an area that should be explored in more detail through close examination of authorities, pressures, revenue use, and expenditure pressures especially in light of the arguments that these charges may be exacerbating housing affordability in B.C.'s major cities.

Table 3: Share of User Fees and Developer Chargers, % of Own Source Revenues, By Province and Local Government Type, 2015

	B.C.		Alberta	
	<u>User Fees</u>	<u>Developer Charges</u>	<u>User Fees</u>	<u>Developer Charges</u>
City	34.2	11.7	29.3	3.0
District	32.9	6.7	9.9	1.3
Town	35.7	3.5	31.8	3.3
Village	39.8	2.1	32.3	0.0
Regional District	52.0	1.1		

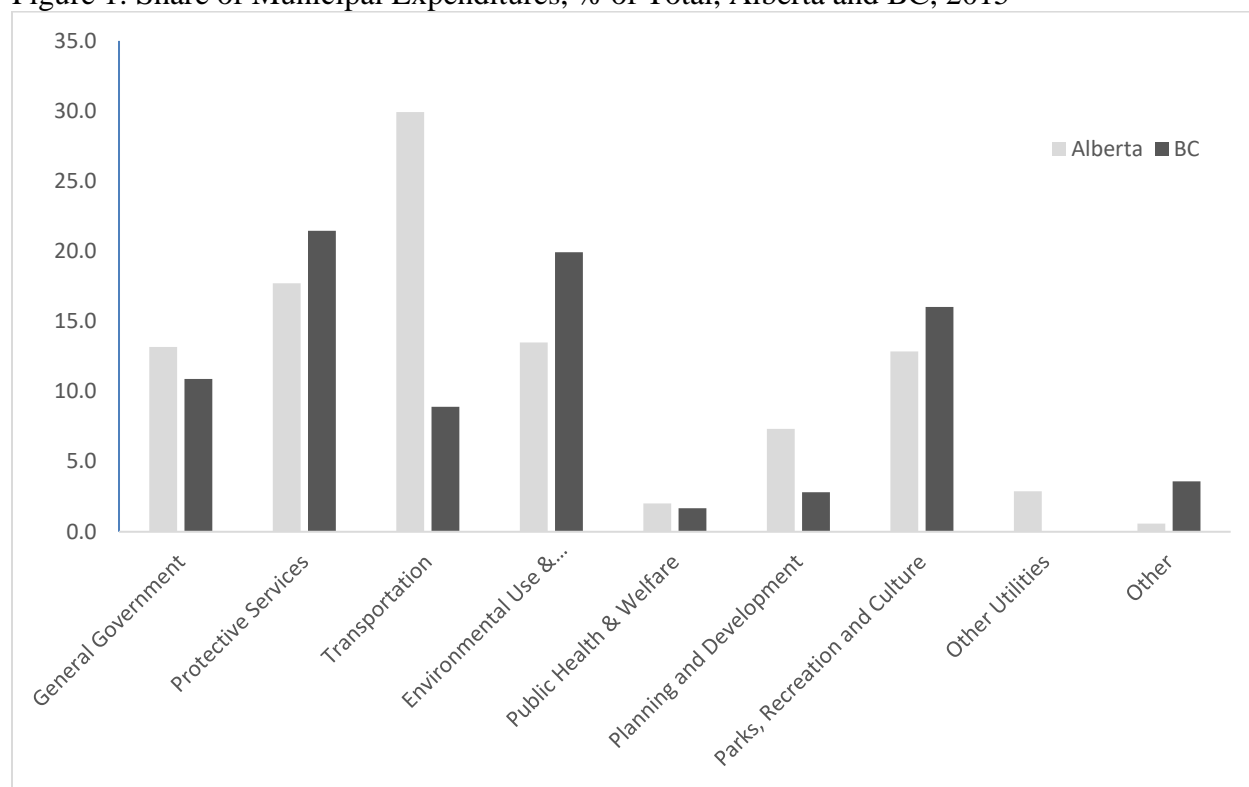
Source: Alberta 2017 and British Columbia n.d..

Finally, the provincially available data also allows a breakdown of expenditures by broadly comparable categories. Figure 1 provides this information. Expenditures by municipalities in each of the provinces differ in several notably ways. First, Alberta municipalities spend much more on transportation. This is most likely the result of the responsibility for public transit being devolved to the municipalities in Alberta, whereas public transit is a provincial responsibility in B.C. Second, B.C. spends a higher portion on environmental use and protection. This is despite world class sewage treatment facilities in Alberta and many B.C. municipalities still dumping primary treated sewage into local water ways. With both provincial and federal legislation requires that sewage be treated by 2020, it will be poignant to see how that share changes in B.C. and how user fees are incorporated into this new provision of services. Third, despite B.C. municipalities relying more heavily on developer charges, planning and development make up a much lower share of expenditures in B.C. than in Alberta. Finally, another service difference between Alberta and British Columbia relates to who manages and delivers gas and electric. In Alberta, the two largest cities are involved in the production and delivery of electricity and gas through wholly owned corporations. Across most of B.C., a provincial crown corporation provides electricity, whereas a company (FortisBC Inc.) that is regulated by the provincial government provides gas. This is why municipalities in B.C. have no expenditures in the category of other utilities.

What is clear from this review is that jurisdictional context matters in terms of examining patterns in user charges in Canada. Western Canada currently leads the way in the deployment of user fees by Canadian municipalities, suggesting they have heard the argument of several

economists that the approach to local finance should generally be “whenever possible, charge” (Bird 2010, p. 16; Alm 2011, pp. 12-13) so as to ensure the goods and services provided by a municipality are being used by the consumers who value them most and are willing to pay for the use of those goods and services. Comparing two similar provinces, Alberta and B.C., however, show that key differences arise in the use of user charges. Some of these differences are attributable to cost-recovery mandates, municipal size, and differences in the devolution of both revenue tools but also service responsibilities. It is, however, difficult to determine what is the most important driver for the reliance on user charges as these differences co-mingle with numerous context specific factors unobservable in aggregate data. What is clear is that government expenditure and revenue data for local government available from Statistics Canada is sorely lacking in history and detail to be of any comparative use. Fortunately, the provinces of BC and Alberta have made detailed data available that is very consistent for comparison purposes. Statistics Canada should learn from these provinces and work to provide data that is desperately needed to analyze local government trends such as the reliance on user fees to fund municipal infrastructure.

Figure 1: Share of Municipal Expenditures, % of Total, Alberta and BC, 2015



What has been detailed here is the general use of user charges and the general patterns of expenditures by municipalities in Alberta and B.C. A closer look at select cities may yield additional observations. The local governments for Calgary and Edmonton in Alberta and Vancouver and Metro Vancouver in B.C. have been selected for the following reasons. First, two-thirds of Alberta’s population (Alberta, n.d.a.) is now within the boundaries of either the City of Edmonton or the City of Calgary, both of which have been experiencing and are expected to continue to experience substantial population growth. This has put a substantial

pressure on these cities infrastructure. Unlike in other provinces with large municipalities servicing a large portion of the population, the province of Alberta has not established separate legislation for these municipalities bestowing additional functions or revenue authorities. However, the provincial government recently commenced consultations on the establishment of charters for these cities, which may devolve new revenue tools (Alberta n.d.a.). Second, the largest regional district in B.C. is Metro Vancouver, which encompasses about half the population of B.C. and contains 23 municipalities. The largest municipality in this regional district is Vancouver, which is one of the only municipalities in B.C. that has its own specific provincial act, called the *Vancouver Charter* that was passed in 1953. Vancouver is struggling with two significant infrastructure requirements: namely affordable housing, due to the significant rise in property values in the last 20 years, and transit, due to urban sprawl, traffic congestion, and population growth.

Table 4 shows the share of user fees as a share of own source revenues across the select local governments in the two provinces. The City of Vancouver and its Regional District receive a much larger share of user fees than the B.C. average. The City of Vancouver receives 43.5% of its own source revenues from user fees and the Regional District of Metro Vancouver receives nearly 84% of its own source revenues from user fee. Unfortunately, BC Local Government Statistics do not break down user fees by function but, from the expenditure information they provide, it is clear that user fees are much higher for Metro Vancouver. Budget documents for the regional authority show that 80% of its revenues come from water, sewer, and solid waste fees (Metro Vancouver 2017, p. 8) and its spends 85% of its revenue on these three services as well (p. 9). As mentioned previously, unlike in Alberta, public transit in B.C. is a provincial responsibility. In Metro Vancouver, transportation is provided by Translink, a statutory authority of the provincial government, so none of the user fees for roads or transit are included in the figures for Metro Vancouver (which spends nothing on these functions) or the City of Vancouver.

Table 4: Share of User Fees, % of Own Source Revenues, Select Local Governments, 2015

British Columbia		Alberta	
Vancouver	Metro Vancouver	Calgary	Edmonton
43.5%	83.6%	30.3%	22.6%

Source: Alberta 2017 and British Columbia n.d..

In the two largest cities in Alberta, there are very different patterns related to user fees. The City of Calgary's share of own source revenues from user fees is well above the provincial average, at more than 30%. This is contrasted with the City of Edmonton at below the provincial average, with less than 23% of its share of own source revenues coming from user fees. Unlike B.C., Alberta does provide fairly detailed information about what category of municipal functions are user fees raised and what is the distribution of these user fee revenues across municipal functions.

Table 4 provides information on the collection and distribution of user fees for Alberta's two largest cities, Edmonton and Calgary, which account for two-thirds of the provinces population.

For example, provincial data for Calgary show that user fees accounted for 25 percent of municipal revenues in 2015.³ Table 4 shows the distribution of user fees by function and indicates the largest proportion of fees are for water and waste water followed by public transit. The most notable difference between the two cities is that Calgary collects users fees for water supply and distribution whereas Edmonton does not, but this is partially offset by higher fees for waste management in Edmonton. In terms of disbursements (which includes annual and interest expenses), it is interesting to note that total annual disbursements of user fees in Calgary is significantly lower than the total amount collected. In fact, the City of Calgary is reporting a nearly \$400,000,000 surplus in user fees. Given the legal constraints on user fees the City of Calgary would be well advised to carefully review is user fee policy. The City of Edmonton also reports a surplus, but it totally only \$32,236,000 which could be interpreted as a small, sporadic surplus, though also worthy of review. In terms of the category of disbursements, both cities are struggling with ensuring that user fees revenue spent on the activities from which they are raised. There appears to be some concerning cross subsidization of activities that do not appear consistent with the legal constraints. This again points to a need for these municipalities to carefully review the user fee policies, not only in terms of amounts generated, but also how those amounts are disbursed.

Table 5: Collection and Distribution of User Fees by Function, % of User Fee Revenues/Disbursements, Calgary & Edmonton 2015

Service	Collection		Disbursements	
	Calgary	Edmonton	Calgary	Edmonton
General Administration	1.5	1.6	5.6	2.3
Police	1.6	3.3	2.9	2.1
Fire	0.6	0.3	2.2	0.1
Roads, streets, sidewalks, lighting	6.2	3.0	21.5	26.4
Public transit	16.8	18.1	17.0	8.5
Storm sewers and drainage	5.0	7.0	3.9	3.3
Water supply and distribution	24.1	0.0	7.1	0.8
Wastewater treatment and disposal	21.8	16.3	5.1	3.4
Waste management	8.0	24.0	6.4	2.9
Subdivision land and development	9.7	12.1	3.5	0.0
Parks and recreation	4.4	7.2	6.7	5.7
Other	0.3	7.1	18.1	44.5
Total %	100.0	100.0	100.0	100.0

³ Source: Alberta Municipal Affairs, Municipal Financial and Statistical Data, Schedule D).

Total \$	1,100,837,000	639,976,000	703,806,000	607,740,000
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Source: Alberta Municipal Affairs, Municipal Financial and Statistical Data, Schedule E

4.0 Emerging Issues in Financing Municipal Infrastructure in B.C. and Alberta

There are a number of emerging issues with respect to financing municipal infrastructure that get at the heart of the complexities with financing municipal infrastructure. This section considers to current and intense debates: paying for road infrastructure, and paying for public transit.

4.1 Paying for Road Infrastructure

The major cities in the two provinces, namely Metro Vancouver, Calgary, and Edmonton each are burdened with significant traffic congestion due to a mix of geography, urban sprawl, and car culture. There have been calls to implement road tolls or congestion charging (two forms of user charges) in these areas and use the funds to pay for road infrastructure and to fund transit alternatives. While the literature provides a detailed and convincing rationale for road tolls and congestion charges to address these issues, this financing tool has been met with distaste.

In B.C., the *Community Charter* explicitly forbids municipalities from imposing road charges, though the province does collect tolls on two local bridges. Metro Vancouver did consider the idea of a congestion charge to pay for much needed investments in public transit; however, it preferred a 0.5% add on to the provincial sales tax. That policy proposal went forward in a referendum and was flatly rejected by voters. In the more than year and half since the failed referendum (Johnson and Baluja, 2015), the issue of congestion charge has not been refloated as an alternative.

In Alberta, there have recently been some strong messages about the use of toll roads to fund infrastructure. While the former Conservative government was debating the implementation of road tolls in Alberta and a recent report from the C.D. Howe Institute (Dachis, 2016) stated that the Canadian provincial governments should be developing and implementing toll roads to help pay for the repairs to current infrastructure and new projects, this approach to raising revenues has been criticized and swept aside by the NDP government. In June 2016, Joe Ceci, the NDP Finance Minister, stated that despite the NDP government looking for ways to deal with their financial crises, “No to road tolls, unless you know a road that I can make \$6.1 billion on.” (Wood, 2016). The NDP Transportation Minister Brian Mason further substantiated this stance by noting, “Our view is that there should not be toll roads in Alberta right now...I think Albertans would not respond well to that.” (Wood, 2016)

While the use of a road toll or congestion charge would be an efficient solution to the problem and raise revenues that can and should be reinvested into municipal infrastructure, it is clear that such an alternative revenue tool will not be considered any time soon in either province. This is an interesting dichotomy since user charges are deemed to be appropriate for such municipal services such as utilities and recreation. In this scenario, it appears that “...politicians see tolls or other types of road pricing as a political hot potato. They want to be re-elected and instituting a toll or tax is not the most popular thing to do.” (Mayer, 2011) Moreover, the decision to not support road tolls does not address any social benefit policy considerations in terms of reducing traffic and congestion for either environmental or health reasons.

4.2 Public Transit

Many municipalities across Canada have provided the largest share of government funding for the capital costs of expanding and building local transit systems with British Columbia municipalities being the exception because of the provincial control of the transit system. To pay for the ongoing costs of capital and operating public transit costs, municipalities have adopted user fees (fare box revenue), property taxes, and other sources of funding. Yet many Canadian cities, including those in British Columbia and Alberta, have not been able to keep up with the investment in public transit that is needed to address traffic congestion, long commutes, and air pollution.

With a newly elected Liberal government at the federal level, an NDP government in power for the first time in Alberta, and with a provincial election in British Columbia taking place in May 2017, the time for these three levels of government to make funding commitments to infrastructure has created an opportunity to make a significant dent in the transit infrastructure deficit in both Alberta and British Columbia. As noted earlier, there are numerous matching grants that have been put forward by the federal government and Alberta and British Columbia have been able to take advantage of such opportunities to invest in much needed public transit projects across their provinces. (See e.g., Alberta 2016) For example, in a recent announcement made in Alberta about the funds being distributed under the Public Transit Infrastructure Fund, there were “important investments in 46 transit projects across Edmonton to support critical planning for the city’s next LRT expansion, as well as buses, LRT cars and significant infrastructure upgrades for the city’s existing transit system.” (Alberta 2016) Through this specific fund, the federal government states that “funding will be provided to support the rehabilitation of public transit systems; the planning of future system improvements and expansions; enhanced asset management; and system optimization and modernization.” (Infrastructure Canada 2016)

Despite the \$3.4 billion in public transit funding that was announced in the spring 2016 budget, there is criticism that this money is not enough and that it is less than the money promised during the 2015 Liberal election campaign (Lenti, 2016). To address the infrastructure deficit, the Liberals stated they would spend approximately \$5 billion in new infrastructure spending in 2016 and in the following year, spend another \$5 billion. While there are challenges concerning the speediness and timeliness to which municipalities will start to feel the effects of this investment, Raymond Louie, president of the Federation of Canadian Municipalities, lauded the government for providing funding with fewer strings attached and stated “this is a tremendous change in policy by the federal government.” (Lenti, 2016) The federal funding announcements are still relatively new and while the amount of investment in public transit is significant, the provinces and municipalities will need to work together in the future to determine what additional funds are needed and what services should be a priority.

5.0 Conclusion

Municipalities are being confronted with complex policy challenges that place a strain on the fiscal resources of a municipality, including deteriorating infrastructure and devolution of responsibilities from other levels of government. User fees may assist municipalities in

generating additional revenue to assist with these complex policy challenges, either by raising additional revenue, shifting the funding of a good or service from property taxes to user fees in order to reallocate those funds, or supporting municipalities to ensure the best use of municipal resources.

The paper makes three observations. First, that user charges that are generally available to municipalities, namely user fees and regulatory charges, to fund infrastructure are fairly limited, each of which with the own unique limitations. Detailing the pros and cons of these tools shows that different tools are suitable for different kinds of projects or problems.

Second, that the available and use of the financing tools actually depend on the specific environment and jurisdictional reality that the municipality is operating. Municipalities within and across the provinces are delegated very different responsibilities and revenue tools which either favour or dissuade the use of any given tool, despite its theoretical uses. The paper details this by looking at the municipal context in the provinces of Alberta and B.C. These jurisdictions share some similar features, but also significant differences and these matter for financing municipal infrastructure in each of these jurisdictions.

Third, there are shared concerns across the jurisdictions which has been met with the same response in some cases and not in others. This demonstrates the importance of flexibility in financing tools. There is a wide range of financial capacities among municipalities in B.C. and Alberta. This range of financial capacities affects the ability of each municipality to raise the necessary funds within their jurisdiction to deliver the basic bundle of municipal services. Disparities in service delivery abilities may be particularly noticeable when comparing municipalities within a region. B.C. has attempted to address this through the use of regional districts to fund regional projects. Alberta still relies on individual responsibility, which become poignant on bordering municipalities to large cities. Such municipalities can benefit of the services provided by the large city without needing to raise revenue for them.

Finally, the limitations on user charges make that challenging to apply to cases where significant up front investments are needed. User charges have very specific legal constraints on them, some of which are at odds with the nature of the infrastructure itself, notably the fact that these projects tend to be big ticket lumpy expenditures for which it is hard to directly tie the benefits derived from the resulting infrastructure to the source of the financing. In reviewing the data from the cities of Edmonton and Calgary it is apparent that the limitations are not well known and cities need greater guidance in setting user fee policy. Cities would be well advised to carefully review the guidance provided by Althaus and Tedds (2016).

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