The Impact of Municipal Finance and Governance on Urban Sprawl

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Many of the environmental issues we face today – air and water pollution, greenhouse gas emissions, loss of farmland, green space, and natural resources – stem, in large part, from the way we have planned and built our cities in the past. We know, for example, that compact urban development is more environmentally sustainable than suburbanization and sprawl.¹ Urban sprawl is generally characterized by relatively low density development that “expands in an unlimited and non-contiguous (leapfrog) way outward from the solidly built-up core of a metropolitan area.”² Other dimensions of sprawl include loss of agricultural lands, green space and environmentally sensitive areas; spatial segregation of land uses (for example, residential, shopping centres, industrial and office parks, schools and municipal offices); almost total reliance on the automobile; congestion and pollution; and excessive infrastructure costs for water, sewers, and roads to remote areas.

Perhaps less well understood than the impact of sprawl on the environment is the impact of municipal finance and governance on urban growth patterns. The financial instruments used by local governments to pay for infrastructure and services in new developments (such as development charges, property taxes, and user fees) have an impact on development decisions such as the location and density of development. Municipal governments can affect urban form not only with planning tools (such as planning and zoning laws) but also with municipal financial tools. In some cases, these financial tools work together with planning tools to curb sprawl, but in other cases they have the opposite effect.³ Indeed, current financing arrangements in many cities subsidize sprawl by charging an artificially low cost for infrastructure and services to this type of development.

How our cities are governed also has an impact on whether we have compact development or urban sprawl. Our ability to manage growth – to maintain a balance between growth pressures and protection of the environment – requires the coordination

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¹ See, for example, National Round Table on the Economy and the Environment (2003) and External Advisory on Cities and Communities (2006).

² See Transit Cooperative Research Program (1998: 6) for the characteristics of “urban sprawl.”

of land use and infrastructure planning on a region-wide basis. It is difficult, if not impossible, to address what are largely region-wide issues without some form of regional governance structure. Yet few regional structures exist at this level at the present time.

This paper assesses the impact of municipal financial tools and governance on the pattern of urban growth. The first part considers how financing tools can affect urban growth patterns and analyzes the impact of four specific financing tools: development charges, property taxes, user fees, and tax increment financing. The second part considers the role played by local governance on urban growth patterns. The third part provides some concluding comments on approaches to finance and governance that could improve the prospects for compact development.

1. Financing Tools and Urban Growth: Getting the Incentives Right

Evidence from Canada and the US suggests that the cost of services (especially “hard” services such as water, sewers, and roads) increases directly with distance from the central city and inversely with the density of development. The most costly areas to service thus tend to be the outlying, low-density developments. If residents of the outlying areas are charged the higher marginal cost of services provided to them (the cost of resources to society of producing an additional unit of the good or service) and residents of the central, more densely populated areas are charged the lower marginal cost of services provided to them, the result will be an efficient pattern of development. If other ways of charging for services are used, however, the result is not likely to be efficient in terms of development patterns.

Where the benefits of services (such as water and sewers) to a particular property are not fully charged to it, the difference between the benefits and the costs will be capitalized into the land value. Just as taxes or charges may reduce property values, the provision of municipal services will increase property values. Local services make a city a more desirable place to live. Better services increase the demand for properties in that city and these will be reflected in higher property values. The increase in property values from the

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services counteracts the decrease in property values resulting from the charge or tax. If the charge matches the service benefits exactly, the two together should be neutral with respect to property value. If the service benefits exceed the amount charged to pay for them, there will be an increase in the land value; where the charges exceed benefits, land values will be lowered.

Where land values are affected, there will be an impact on development decisions. Other things being equal, a financing scheme that undercharges outlying areas will result in increased property values in those areas. Higher property values, in turn, can lead to premature residential development of fringe land. Similarly, overcharging central areas is likely to inhibit more dense developments. Charging for local services has the potential to be efficient but only where marginal cost pricing is used.

We need to finance urban development in ways that create the right incentives. Where people choose to live (in the city core, existing suburbs or greenfield suburbs), where businesses choose to locate (close to transit or far away) and where municipalities choose to invest in infrastructure are all influenced by fiscal incentives. If a municipality levies the same charge on developers whether they locate next to existing services or far away, developers have no incentive to locate near existing services even though the cost to the municipality is much less. If a property tax taxes both land and improvements, the owner will be discouraged from making improvements to the property and density will be discouraged. If cities want to discourage sprawl, then financial tools have to be structured in a way that provides the right incentives for compact development.
Development Charges

Development charges are levied by local governments to cover the growth-related capital costs associated with new development (or, in some cases, redevelopment). In Canada, development charges are levied in BC, Alberta, Saskatchewan, Ontario, and the Yukon and Northwest Territories. They are sometimes called development cost charges, development cost levies, development levies, off-site levies, or assessment levies. Development charges are levied for officially mandated programs and the funds collected have to be used to pay for the infrastructure made necessary by the development. In Ontario, for example, development charges can be levied for water supply services, waste water services, storm water drainage and control services, highways, police services, and fire protection services. Other eligible services for which a mandatory 10 percent reduction is required include general government (e.g. master plans but not administration buildings), library services, recreation, public works (e.g. fleets, works yards), and transit. In B.C., development cost charges are only permitted to be levied to finance sewers, water, parks, roads, and drainage.

Municipalities in Canada have, historically, required developers to provide or pay for on-site services such as streets, street lighting, sidewalks, and other public facilities within the subdivision. Subdivision agreements between the municipality and developer require that the developer take responsibility for providing (or funding) these services to

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5 There are other exactions (formal or informal) on the developer that are part of the subdivision approval process but that are not strictly development charges. These include, for example, land dedications that require the developer to set aside land for roadways, other public works, school sites, or for environmental reasons; parkland dedications that require a portion of the land used for development to be set aside for parkland or that a cash payment in lieu of parkland be made; density bonusing whereby developers are granted higher densities (than permitted in the Official Plan) in return for meeting conditions such as providing day care, preserving an historic building etc.; connection fees to permit developers to buy into existing capacity of water and sewer facilities; and over-sizing provisions (sometimes called front-end financing) that require developers to provide more infrastructure than is required for their development. The municipality, in some cases, agrees to recover part of the costs on behalf of the developer from future benefitting owners.

6 For a review of the application of development charges by municipalities across Canada, see Slack (1994). Ontario is the only province with separate development charges legislation; in other provinces, the authority for development charges is contained in municipal or planning legislation.

7 Separate legislation for Vancouver permits it to levy also for housing and day care centres.
meet municipal specifications as a condition of subdivision approval. More recently, developers have been required to pay for the off-site costs associated with new development. The main rationale for development charges is simply that “growth should pay for itself” and not be a burden on existing taxpayers.

Development charges are usually structured according to a set of rules. In Ontario, for example, local governments are required to calculate the need for the services to be financed by development charges. The need for services depends on the forecasted growth over a ten-year period and the existence of excess capacity. Future capital expenditures are specified for each category of expenditure and a determination is made of what portion is growth-related. The calculation of the development charge cannot be based on a level of service that exceeds the average level of service provided in the municipality over the last ten years.

In terms of the geographic application of the development charge, a municipality can charge all developments in the municipality for all services or only part of the municipality for all services. For example, some municipalities exempt downtown developments from paying the charge. Municipalities can also charge different amounts in different municipal service areas to reflect different costs or they can levy a uniform charge across the municipality. Some municipalities do both – they levy a uniform charge across the municipality plus additional area-specific charges for specific services in specific areas.

Development Charges and Land Use

Development charges can be a useful tool in encouraging efficient land use and infrastructure use. To be efficient, however, charges have to be structured to reflect the true costs of providing public services.

Area-specific charges allow municipalities to vary the charge by areas of the city according to the different infrastructure costs imposed by each area on the city. The costs

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8 The distinction between on-site costs and off-site costs is important. Although most municipalities specify the on-site costs that are required to be made by developers, not all municipalities make developers pay for the off-site costs.
of services may vary by area for three reasons. First, the distance between each development and major facilities may be different. A development far away from a water treatment plant, for example, may require an additional pumping station and should pay a higher development charge than a development near the treatment plant. Second, there may be infrastructure cost savings for nodal or infill development because the infrastructure is already there. These latter types of development should pay lower charges than new developments that require new infrastructure to be built. Third, service standards may be different in different developments. Standards may be established on an area-wide basis to reflect different levels of efficiency in terms of per household water use, waste generation, automobile use etc.

Whatever the reason for the differential costs, efficient land use requires that developments that impose higher infrastructure costs on the city pay higher development charges than developments that impose lower costs. If the development charge reflects the full costs and benefits (private and public) of the development, then developers will make efficient choices about where to locate their development. The charge is similar to a price for services rendered. In the absence of a development charge, the developer considers only the private costs and benefits of alternative locations and does not consider the impact of the development on the municipality's costs of providing services.

Since the cost of services varies by the type and location of development, an efficient development charge would have to vary by these characteristics of the development. If a development charge is uniform across the city, the result will be to under-price "hard" services in low-density neighbourhoods and over-price them in high-density neighbourhoods. The result will be over-development of low-density housing and under-development of high density housing relative to what is economically efficient. A development charge that is the same amount per unit regardless of where the unit is located will not reflect the true costs of the development to the municipality and will not lead to efficient development decisions. A uniform charge subsidizes inefficient uses of land – developments that impose higher costs are subsidized by developments that incur lower costs.

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9 See Tomalty and Skaburskis, 1997.
Development cost charges in many urban areas in B.C. are levied on a development-by-development basis allowing for the charge to vary by location. In Ontario, the use of marginal cost pricing or development-by-development charges is less common. Instead, average cost pricing is often applied.

**Property Taxes**

Property taxes are mainly used to pay for municipal operating expenditures but can also be used to finance debt costs arising from previous capital expenditures and to finance future capital projects whereby a portion of the taxes is placed in reserves for future capital expenditures (so-called reserve funds). Property taxes are used more often to finance capital expenditure in smaller towns and cities and rural municipalities than they are in larger urban municipalities. One of the reasons is that borrowing can be costly for smaller municipalities because capital markets view these municipalities as being high risk. Another reason is that these municipalities prefer to use “pay-as-you-go” financing rather than borrowing.

The base of the property tax is the assessed value of real property. Each province has legislation which requires that property be assessed for taxation on the basis of its market value defined as the price that would be struck between a willing buyer and a willing seller in an arm’s length transaction. A property tax rate, or series of rates by type of property, is applied to the assessed value of property to determine the taxes payable.

*Property Taxes and Density of Development*

Other things being equal, a property tax is expected to result in a reduction in density. Since the tax is levied on the assessed value of property (land and improvements), any investment that increases the value of the property (such as any improvement to the property including an increase in the density) will increase the assessed value and make
the property subject to a higher tax.\textsuperscript{10} Higher property taxes provide an incentive for less dense projects and lower densities mean that the city will expand in a way that is socially inefficient. \textsuperscript{11} Other things being equal, a property tax encourages undesirable sprawl.

To the extent that property tax differentials are matched by differentials in expenditures on public services, however, there is not expected to be a distortionary impact on location or land use. Although the property tax cannot be regarded as a direct user fee where individuals pay directly for the services they receive, some economists regard it as a tax paid by the community for services that have collective benefits.\textsuperscript{12} This means that the property tax can be loosely considered to be a benefits tax to the extent that public services provided to the property owner enhance the value of the property and result in higher property taxes.

Where this matching does not occur, however, there will be a pattern of positive and negative subsidies. These subsidies will influence urban development patterns and in a way that worsens it. Some taxpayers will pay less for services than the benefit they receive and some taxpayers will pay more.

\textit{Property Taxes and Land Use}

Provincial and municipal governments make a number of policy choices regarding the structure of the property tax such as what is included and excluded from the tax base, how property value is defined for different classes of property (for example, residential, farm, commercial, and industrial properties), what percentage of the value is taxable, and how effective tax rates vary within and between classes of property.

In some provinces, for example, apartments are over-taxed relative to single-family homes.\textsuperscript{13} To the extent that the property tax system favours single-family homes over

\textsuperscript{10} It is assumed, of course, that an increase in the value of the property will be reflected in the value assessed for taxation purposes. This is not always the case, however.

\textsuperscript{11} See Brueckner (2001).

\textsuperscript{12} The debate over whether the property tax is a benefits tax or a capital tax can be found in articles such as Fischel (2001) and Zodrow (2001).

\textsuperscript{13} A notable exception is Calgary where all residential properties (single-family homes, apartments, and condominiums) are taxed at the same rate.
apartments, the property tax results in a reduction in the density of development.\textsuperscript{14} Moreover, the property tax system generally does not differentiate among types of single-family homes, for example, single-detached, semi-detached, and townhouses even though they may require different expenditures.

Farm properties are favoured in the property tax system in most provinces as part of a more general policy of protecting farmland. A common way to favour farm properties is to assess them in the current use rather than the highest and best use (market value). This means that the value of a farm is determined by its selling price if it were to continue to be used as a farm. Alternative uses of the farm, or its speculative value, are not considered in the determination of value. Other ways of favouring farm properties include providing exemptions for part or all of the farm property, lowering tax rates on farms, or providing farm tax rebates.

In Ontario, for example, legislation requires that farms (and managed forests) be taxed at 25 percent of the rate on residential property. Tax rates on farmland pending development can be phased in over stages (it is a municipal option). The triggers for tax increases are: when the land is used solely for farm purposes but has been registered for subdivision and when the land is used solely for farm purposes but a building permit has been issued.

The extent to which assessing farms at their value in current use actually preserves farmland on the urban fringe is questionable. If agricultural owners are free to sell their land for development at any time, long term preservation of farmland is not guaranteed. In the worst case scenario, reducing taxes for land under the greatest development pressure (close to the urban fringe) may result in leapfrog development farther into the countryside. The protected land will then be developed at a later date for greater profit. Leapfrog development and the associated need for infrastructure expansion are often unintended consequences of efforts by individual communities to restrict growth on the urban fringe. Favourable property tax treatment of farmland on the urban fringe is not sufficient to preserve it. Preservation of agricultural land requires legal limits on development (e.g. through zoning, agricultural preservation easements, etc.).

\textsuperscript{14} In Ontario, municipalities can make use of an optional property class for new multi-residential properties. If they do, the tax rate on new multi-residential properties has to be equal to the tax rate on single-family residential properties.
User Fees

A user fee is a per-unit charge for goods or services provided by government. User fees are currently charged by local governments across Canada to pay for services such as water, sewers, transit, garbage collection, recreation facilities, parking, and homes for the aged.

Economists argue that there are many efficiency advantages to charging directly for local public services. User fees ration services to those who are willing to pay for them and they act as signals to local government to determine the quantity and quality of services to provide.\(^{15}\) They promote efficiency in the consumption of goods and services, however, only if marginal cost pricing is used whereby the price equals the marginal cost of providing the service (the value of an additional unit to the consumer). If the price is greater than the marginal cost, this means that society values an additional unit of the good by an amount that exceeds the cost to produce it. Society would gain by producing more of that good or service. If the price is less than the marginal cost, society values the good less than the cost to produce it and society would gain by producing less of it. Only where price is equal to marginal cost will there be an efficient allocation of resources.

Some authors have claimed that user fees can improve the pattern of urban development if marginal cost pricing is used.\(^{16}\) Most municipalities, however, use average cost pricing where the total costs are divided equally among the users. If average cost pricing is used, those in outlying areas (where costs are relatively higher) would pay less than the marginal cost of the service and they would receive a subsidy. Those in the central, high-density area would be pay more than the marginal cost of the service, in effect subsidizing the use of services by others.

\(^{15}\) For a more detailed discussion of the advantages of user charges, see Kitchen (2000), Bird and Tsiopoulos (1997) and Dewees (2003).

\(^{16}\) See Downing (1973).
**Road Tolls**

A user fee that can have an important impact on the extent to which there is compact development or sprawl is a road toll. Road tolls discourage the use of automobiles and reduce the demand for commuting.\(^1\) At the same time, they could increase the demand for more compact development.

The decision to make a road trip is made on the basis of the benefits enjoyed by the road user and their costs. In the absence of a user fee, these costs only include the private costs (fuel, depreciation, license fees, and time) and do not include the costs of construction of the road, the costs imposed on other travellers or the population as a whole in terms of congestion and environmental damage (greenhouse gas emissions, air and water quality). The result is that some road trips are made in which the benefits to the traveller are less than the costs to society and the amount of road use is not efficient. If road users were charged the full cost of their trip, including the costs imposed on others, the resulting travel pattern would be efficient in the sense that all of the costs would be equated with all of the benefits.

Although tolls are not frequently used in Canadian cities, there are examples of municipalities piggybacking onto federal and provincial fuel taxes. A share of the fuel tax for cities is not exactly the same as a direct user charge in the sense that it would not reflect the marginal social cost. Moreover, a fuel tax does not adjust for where or when consumers drive, two variables that determine their marginal contribution to congestion and pollution (the external costs imposed on others).\(^2\) Nevertheless, a share of fuel tax revenue does give cities additional funds to construct roads and to increase the subsidy to transit. Other things being equal, fuel taxes also lower road use to a more efficient level.

**Tax Increment Financing**

Tax increment financing (TIF) is a way to raise money to revitalize blighted urban areas, stimulate downtown revitalization, encourage brownfield remediation, or to finance

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\(^1\) The congestion charge in London, for example, has been successful at reducing traffic in the downtown core by 15 percent.

\(^2\) See Kitchen and Slack (2003).
major infrastructure. TIFs have been included as a financing tool to promote compact
development because downtown redevelopment and brownfield remediation reduce the
need to develop greenfield sites.

TIFs were first introduced in the U.S. in 1952 in California and are now used by
cities in approximately 48 states. TIFs are not widely used in Canada, however. Although
cities in Manitoba are permitted to use TIFs, they do not currently use them. Recent
legislation in Alberta permits municipalities to use a form of TIF known as the
“community revitalization levy.” TIFs are currently being contemplated for Toronto but
have not been implemented.

How do TIFs work? TIFs generally follow a set of procedures that require the
delineation of a TIF district and public consultation about the redevelopment plan. The
annual property tax revenue accruing to all taxing authorities within the district (the
municipality, the county, school boards, etc.) is frozen at pre-revitalization levels (these
are known as base level property taxes). For a period of time, generally between 15 and
35 years, all or some portion of the incremental tax generated (above the base level)
accrues to the redevelopment agency to be used for the redevelopment. Redevelopment is
often implemented by the private sector, under the auspices of a city board or a
community redevelopment agency. In order to spur the redevelopment, infrastructure,
land assembly, and other improvements are undertaken. The source of financing for these
front-end and periodic costs is usually borrowing or bonds issued against expected
incremental tax increases. In this way -- lending on the basis of a district plan’s expected
tax increment -- the plan is financed through a public offering. After the TIF period
expires, tax revenues from the expanded assessment base again flow to the taxing
authorities.

With a TIF, developers may benefit from a more appropriate or a more affordable site
but they are not taxed at a different rate than other property owners. In other words, TIFs
are not like tax bonusing where taxes are reduced or forgiven on a particular site. If the
TIF achieves the results predicted, there is no direct transfer of funds from the
government or any transfer of tax dollars from one business to subsidize another

19 There is an extensive literature on TIFs in the U.S. See, for example, Wassmer (1994),
Anderson (1990), TD Economics (2004), and Slack (2005).
business. Dedication of TIF monies gives the private sector greater assurance that their investment will contribute to a revitalized district, thereby reducing their risk and uncertainty.

Although there has been some criticism of TIFs in the US,\textsuperscript{20} they are generally regarded as a good tool for brownfield remediation and revitalization of older industrial areas.\textsuperscript{21} As noted earlier, development of these sites reduces the need to develop greenfields.

2. Local Governance and Urban Growth

It was stated at the outset that many of the environmental sustainability issues we face are the result of decisions made in past around planning and building our cities. Local governance has an important role to play because it determines how those decisions are made. In particular, decisions around land use and infrastructure investment affect whether there will be sprawl or compact development.

The challenges that large urban areas face are characterized by both strong interdependencies and by externalities among local jurisdictions and thus need to be tackled on a coordinated and region-wide basis. It is difficult, if not impossible, to address what are largely area-wide issues on a region-wide basis without some form of regional governance structure: “without a regional governance structure that at least has the power to resolve differences among municipalities, how can one be certain that plans for economic development are brought on-line and in balance with conservation, quality land use, and the goal of compact, cost-effective growth?”\textsuperscript{22}

\textsuperscript{20} Some of these criticisms include: TIFs may not be able to generate the predicted tax revenues and the resulting lack of funds could threaten efforts to revitalize the designated area. Other taxing authorities (such as school boards) resent that their property taxes are frozen at a time that they are experiencing growth in demand as a result of the revitalization. TIFs may merely accelerate development that would have occurred anyway. TIFs target funds to a designated area at the expense of areas on the periphery of the TIF district or at the expense of overall municipal growth. TIF bonds are more expensive than general obligation bonds.

\textsuperscript{21} For example, TIFs have been strongly endorsed by the National Round Table on the Economy and the Environment (NRTEE) for the remediation of brownfields.

\textsuperscript{22} Peirce et al. (1993).
A regional structure is not only needed to resolve transportation and land use coordination issues, it is also required to ensure the economic competitiveness, social cohesion, and fiscal viability of large urban areas.\textsuperscript{23} A number of key functions need to be coordinated on a regional basis: regional planning, infrastructure planning and investment (including roads, transit, water and sewers), economic development, and environmental protection.\textsuperscript{24}

There are many different models for regional governance available, both in theory and in practice. Two-tier governments (where there is a regional government and lower tiers), single-tier governments, voluntary cooperation among local governments, and special purpose districts have all worked successfully, to varying degrees, in different places at different times. Governance systems have evolved over time reflecting different histories, cultures, and local circumstances. Neither theory nor practice clearly indicates, however, which model of governance is the best for large urban areas.\textsuperscript{25}

A one-tier government structure is simple to understand and transparent so it may enhance political and fiscal accountability. The geographic boundaries of a one-tier structure would have to be large enough to address region-wide growth and environmental issues. A municipality this large may not be too locally unresponsive, however. A two-tier government structure may be preferable because region-wide issues could be addressed and economies of scale could be realized at the upper-tier level at the same time that the lower tier can provide access to citizens and be responsive to local variations in preferences. Two-tier structures may result in undesirable duplication, overlap, and general confusion among citizens as to who is responsible for what and who is paying for it, however.

The sheer size of some urban areas, however, may mean that it is not possible for the political boundaries to coincide with the entire functional urban area. If political factors make it impossible to establish any form of encompassing metropolitan regional

\textsuperscript{23} See Slack, Bourne and Priston (2006).

\textsuperscript{24} See Greater Toronto Area Task Force (1996).

\textsuperscript{25} Reviews of this issue have also concluded that no model fits all cases or stands out clearly above the rest. See Slack, Bourne, and Priston (2006), McMillan (1997), Klink (2002), and Travers (2005).
government (one-tier or two-tier), then some variant of the voluntary cooperation or special purpose district may still be possible. Voluntary inter-municipal agreements and special districts, for example, may prove effective for the provision of individual services, but such approaches seem unlikely to provide the needed regional foundation to coordinate land use planning and strategic infrastructure investment on a regional scale.

Another option is for the provincial government to take a lead role in growth management decisions on a region-wide basis. The provincial government in Ontario, for example, recently introduced legislation to protect the Greenbelt and legislation to manage growth in the Greater Golden Horseshoe (the Places to Grow Act). The Places to Grow Act provides a legal framework for the provincial government to designate growth in geographic areas of the province outside of the Greenbelt and develop growth plans for the strategic management of population growth, economic expansion, and environmental and land resources.

What seems more important than the precise model of governance chosen for large urban areas is simply that some form of effective regional governance is in place to address growth management and environmental issues on a regional scale. As Slack, Bourne and Gertler note: “few of these problems and processes stop at municipal boundaries; and most of the solutions require larger geographical units and access to a large pool of resources, both human and financial.” In short, these issues all transcend local government boundaries and require some coordination at the regional level. In many cities, however, the government structure does not provide the capacity to plan effectively over the region, to coordinate service provision to ensure efficient delivery, or to make strategic investments in these areas.

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26 The Greenbelt covers a total land area of 1.8 million acres and extends 325 kilometres from Northumberland County in the east to Niagara Region in the west.

3. **Concluding Comments**

If municipalities are interested in protecting the environment through compact development, then one of the things they will need to do is to design their revenue-raising tools so that, at the very least, they do not encourage urban sprawl. What can they do?

Municipalities should make greater use of user fees that are based on marginal cost pricing to encourage efficient land use and infrastructure use. Municipalities should consider tolls on major highways to reduce congestion and pollution and to increase the demand for more compact development.

Development charges should be levied on a development-by-development basis to reflect the costs associated with different types of developments in different locations. The result will be developments that are located closer to existing services.

Property taxes should, at the very least, be neutral with respect to land use decisions. Neutrality can be achieved generally by relating the tax more closely to the benefits received from municipal services by types of properties and by location. Specific distortions in the current property tax system need to be eliminated such as the over-taxation of apartments relative to single-family homes.

Tax increment financing should be considered by Canadian cities to revitalize downtown areas and remediate brownfields. This form of development will reduce the need to develop greenfield sites and thereby reduce urban sprawl.

Finally, some form of region-wide governance structure (one-tier or two-tier governments, voluntary cooperation or special districts) is needed to manage growth so that land use decisions are made over a broad geographic area and these decisions are coordinated with infrastructure decisions on a region-wide basis.
Bibliography


