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Tapping the Land: Tax Increment Financing of Infrastructure

by
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- Governments are looking for innovative tools to finance infrastructure. Among those they should consider is tax increment financing (TIF). Cities across Canada could potentially use TIF to finance infrastructure ranging from sports arenas to public transit.
- TIF's key virtue is its ability to capture local infrastructure-induced property values without increasing general tax rates. But the details of TIF design matter greatly.
- The City of Toronto's proposed SmartTrack transit plan is a leading example of a municipality looking at how to use TIF for a major investment. Depending on SmartTrack's impact on property values and the design of the TIF program, TIF can potentially finance a large share of the City's investment cost.

Public infrastructure, such as utility and transportation networks, is the bedrock of modern-day economies; without it, they would be unable to function beyond a rudimentary capacity.

With non-infrastructure demands on the public purse having proliferated and perhaps crowded out resources formerly reserved for infrastructure, governments are now looking for new funding sources to address infrastructure renewal and new infrastructure needs (Bazel and Mintz 2014). Typically, this pursuit gravitates toward calling for capital grant increases from senior governments, raising existing tax rates and levying new taxes. Although this is understandable, local governments across Canada might wish to consider an alternative: tax increment financing (TIF).

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In broad terms, TIF refers to augmenting the property tax system to finance infrastructure with revenue in the form of “tax increments” that arise because of that infrastructure. The working of TIF differs across jurisdictions, but the general intent remains the same: the benefits conferred to nearby properties by new local infrastructure are transformed into additional property tax revenue, which is then used to finance that same infrastructure.

TIF is being used in some Canadian jurisdictions, notably in Alberta and Manitoba, and widely throughout the United States, although it might operate under a different name – such as Special Assessment District (Zegras, Jiang, and Grillo 2013). For example, the City of Edmonton is using powers granted to it under Alberta’s *Municipal Government Act* to implement a Community Revitalization Levy to help fund its Capital City Downtown Plan to the tune of \$941 million over 20 years (Edmonton 2015). Similarly, having already used the same mechanism to improve its once-blighted East Village, the City of Calgary is now looking at whether to use it to support a proposed multisport complex in the downtown area (Howell 2015).

Despite its introduction to Ontario through the *Tax Increment Financing (TIF) Act* in 2006, only recently – during the 2014 Toronto mayoralty race – was TIF brought to the forefront of Ontario’s public discourse. During that election campaign, candidate and now Mayor John Tory proposed using TIF to help finance his SmartTrack transit plan. Having won the election, Mayor Tory now has a mandate to make the City of Toronto the first jurisdiction in Ontario to use TIF. In a hypothetical case study summarized toward the end of this E-Brief, I investigate the potential for Toronto to pay its share of SmartTrack’s cost using TIF.

The Infrastructure Investment Challenge

Public infrastructure and private investment have a chicken-and-egg relationship. On the one hand, adequate public infrastructure is vital to catalyzing the private investment needed to spur economic productivity and growth. On the other hand, strong private investment is needed to sustain and grow the economy because that is what generates the wealth that supports the cost of public infrastructure. Ideally, taxes and expenditures should be structured to optimize this relationship, with special consideration given to taxes that are relatively efficient and equitable. General revenue taxes, such as those levied on income (personal and corporate) and property, must therefore be balanced against the negative effects they impose on the economy, especially those that deter the investment and wealth creation required to support infrastructure.

One commonly cited reason for inadequate infrastructure investment is simply a general lack of government revenue (tax or otherwise) (Bazel and Mintz 2014). If this is indeed the case, it calls for a serious re-examination of public-sector priorities and service models, and even of the appropriate role of government itself. Setting this deeper discourse aside, to the extent that government is responsible for providing infrastructure, the growing backlog of much-needed infrastructure renewal needs to be addressed.

TIF’s key virtue is its ability to capture infrastructure-induced increases in land value without increasing general tax rates. Since taxing land does not change the availability of land to the economy, TIF can, when targeted to property appreciation, finance infrastructure without worsening the existing negative impacts of property taxation on investment. Another prospective virtue of TIF over general revenue taxes is its enhancement of equity by aligning location-specific infrastructure benefits (such as a transit station within walking distance) with costs.

The effectiveness of these virtues, however, relies on the structure of the property tax system in which TIF operates, the accuracy and realization of land value (and, if applicable, development) projections and the appropriate demarcation of spatial infrastructure benefits. As with any tax measure, it is the manner and environment in which TIF is implemented that ultimately determine its effectiveness.

Tax Increment Financing within a Conventional Property Tax System

Although a system of land value taxation provides an ideal setting for TIF, property tax systems prevailing throughout North America overwhelmingly tax both the land and structure components of a property at a uniform rate, as Ontario does. Since Ontario is unlikely, in the foreseeable future, to change its property tax system to allow municipalities to levy separate taxes on land and structures, let alone on land only, it is appropriate to discuss TIF in the context of a conventional property tax system.¹

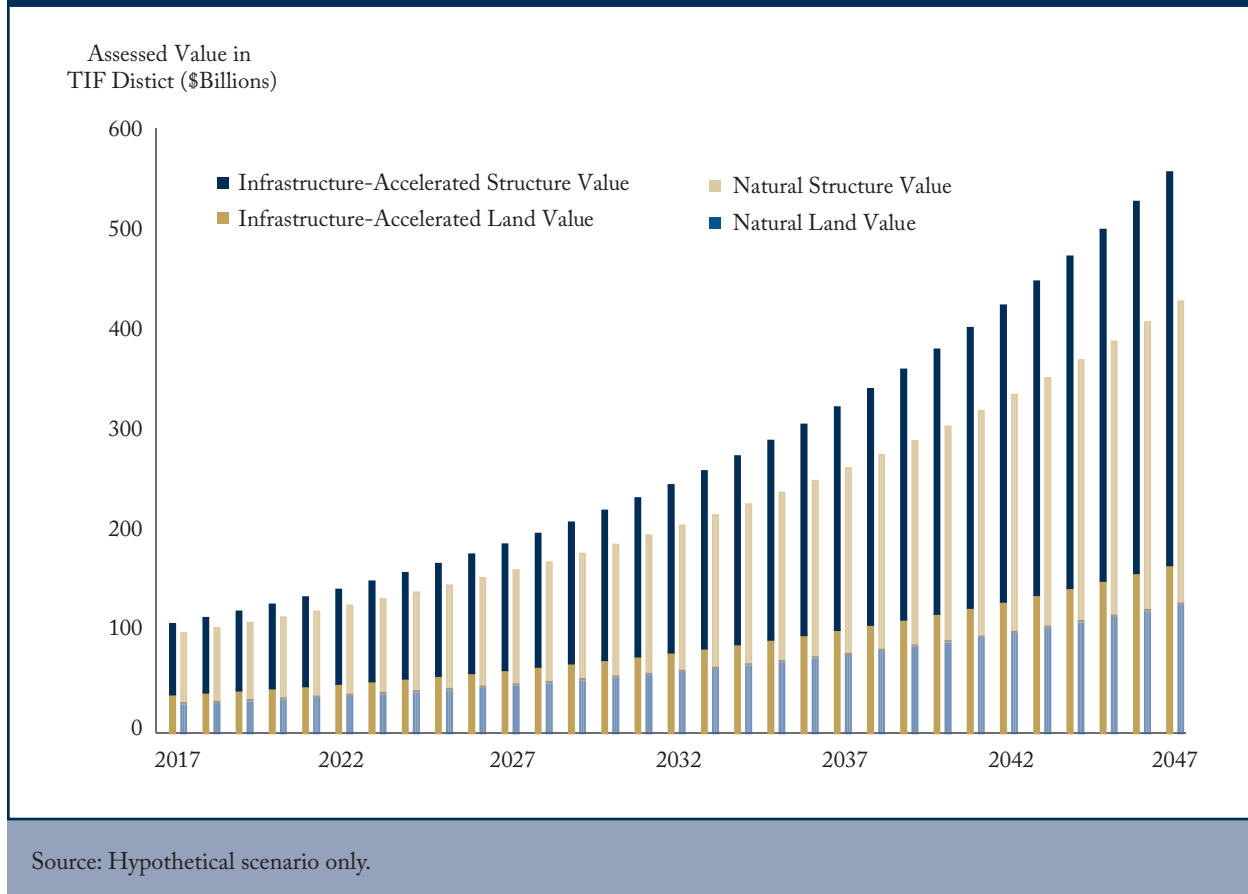
Through the capitalization of infrastructure amenities, property increases in value with proximity to various forms of infrastructure, such as mass transit. This increase in value, called “uplift,” occurs to varying degrees within an affected catchment area, typically called the “TIF district” (Toronto 2015). By conferring uplift to proximate properties, the emplacement of new infrastructure accelerates and intensifies development within the TIF district.

As it is spatial in nature, uplift materializes in the form of increased demand for land, and translates into a windfall gain in land value. If uplift is sufficiently large, infrastructure cost recovery via TIF might be worth considering, especially if it results in general tax rates remaining unaffected. As infrastructure often entails long-term debt or long-term public-private partnerships, TIF generates an annual revenue stream of tax increments attributable to the infrastructure that can be used to help service and retire debt or pay private service providers. Aside from the economic benefit of revenue generation, TIF better matches those who benefit from new infrastructure with those who pay for it. Otherwise, using general taxes to finance infrastructure with area-specific benefits will subsidize those near the infrastructure at the expense of all other taxpayers (see the [online Appendix](#)).

While TIF modelling might be complex, the operation of TIF is quite simple. An investing local government first designates a TIF district, and estimates the natural rate of property assessment growth (appreciation and development) that would have occurred had the new infrastructure investment not been undertaken. This natural growth derives from region- or municipality-wide factors unrelated to the new infrastructure, and results in a notional assessment base projection for the TIF district. Over time, the local government compares this to the actual TIF district assessment base, the difference being a series of assessment increments (see the hypothetical example in Figure 1). Given the series of property tax rates the local government applies over time in the TIF district, the series of assessment increments generates a corresponding series of tax increments dedicated to financing the new infrastructure.

1 See the online Appendix for a discussion of land value taxation and how TIF operates in its purest form (as a land-value capture tool) in that setting.

Figure 1: Land and Structure Assessment in a Hypothetical TIF District - Natural vs. Infrastructure-Accelerated Value



Two General Variants of Tax Increment Financing

Within the context of a conventional property tax system, there are two general variants of TIF:

- *blended*, where TIF is applied to infrastructure-induced property assessment (appreciation and development) and at the general tax rate; and
- *uplift-only*, where TIF is applied only to uplift – infrastructure-induced increases in land value – and at a special supplemental tax rate, which is equivalent to land value capture.

Blended TIF can be applied under any typical property tax system. For assessment agencies such as Ontario's Municipal Property Assessment Corporation, the separation of appreciation from development is a routine aspect of regular property reassessment. Interestingly, this is all that is required of assessment agencies to make uplift-only TIF possible. By consulting real estate expertise, municipalities could decompose total appreciation into its natural and uplift components, and thereby use uplift-only TIF. By its nature, uplift-only TIF avoids the adverse effects of taxing structures, and leaves landowners no worse off so long as the benefits of infrastructure exceed the costs (Gross 1999; Vickrey 1999a; Vincent 2015).

Despite these clear advantages of uplift-only TIF, North American municipalities that use TIF typically have adopted the blended approach, perhaps because of its relative simplicity (e.g., avoidance of special tax rates) and because the political viability of uplift-only TIF is likely a decreasing function of the share of uplift extracted by TIF. However, by relying on development-related tax increments, blended TIF has clear drawbacks. It diverts to the TIF fund tax revenue needed to service accelerated development arising from infrastructure investment, thereby placing upward pressure on the general tax rate, and its success relies critically on development materializing as projected.² Within a conventional property tax system, not only does uplift-only TIF inherit the virtues of a land value tax, but it avoids these drawbacks while offering considerably greater revenue-generation capacity.

Tax Increment Financing in Ontario

In Ontario, both municipalities and the province levy property taxes. The provincial property tax regime is a legacy of Ontario's takeover of the taxing power of local school boards in 1998, which transformed the local education property tax into a general revenue provincial tax (Found and Tomlinson 2015). A key aspect of the *TIF Act* is that it permits municipalities to recover costs through both municipal and provincial property tax regimes. The provincial contribution is effectively a capital grant conditional on the fulfillment of projected infrastructure-induced increases in the assessment base of the TIF district. The *TIF Act* governs how municipalities may apply to the province for provincial tax increments, but the province is not obliged to approve an application.³

In 2007 and again in 2011, the City of Toronto assembled a consulting team to prepare a feasibility study, required under the *TIF Act*, to estimate tax increments for the Toronto-York Subway Extension. As the project was being funded by the three levels of government, the City of Toronto and the Regional Municipality of York were interested in recovering as much as possible of their combined cost share through TIF. The Toronto-York Subway Extension, to be completed by the end of 2017, was one of two pilot TIF projects designated in the 2006 Ontario Budget, the other being the West Don Lands, a brownfield redevelopment forming part of the revitalization of Toronto's waterfront (Ontario 2006). Despite this and attempts by the City of Toronto to implement TIF accordingly, the regulations required to activate the *TIF Act* for actual use remain to be prescribed by the provincial finance minister. This leaves TIF unimplemented in Ontario since its inception almost a decade ago.

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- 2 Development charges and development-generated property taxes are meant to pay for the additional demands development places on municipal services. Under blended TIF, there is an obligation to consider questions such as whether development tax increments are in fact net to the municipality and, even if so, whether their diversion to the TIF fund will create a fiscal imbalance and upward pressure on general tax rates. The Hudson Yards TIF regime in the City of New York initially was criticized for development falling short of projections, and it has often been cited as an example by critics of Mayor Tory's plan to use TIF to finance SmartTrack; the Hudson Yards TIF regime is now more successful than originally expected (Doctoroff and Meola 2015).
 - 3 Ultimately, some provincial oversight is necessary to ensure municipalities do not over-leverage TIF by artificially depressing projected natural growth increments in an attempt to redirect provincial property tax revenues not attributable to the subject infrastructure into the TIF fund.

Box 1: Regional Express Rail and SmartTrack

In its 2015 budget, Ontario committed to Regional Express Rail (RER), a major improvement to the GO Transit network across the Greater Toronto-Hamilton Area (Ontario 2015). With completion targeted for 2024, RER will realize more frequent and faster all-day passenger rail service through upgrades and expansion – such as rail electrification, track twinning, grade separations, added stations and rolling stock and other service enhancements (Toronto 2015). This will reduce wait and travel times, increase ridership and accommodate the population growth and compact development the province envisions in the Provincial Growth Plan. The benefits, however, will come at a capital cost of about \$13.5 billion, as reconfirmed in the 2016 Ontario Budget (Ontario 2016).

Candidate John Tory's SmartTrack transit plan played a large role during the 2014 Toronto mayoral campaign. Now that he is mayor, Toronto has been studying and refining the plan, and moving it closer to reality. Among the anticipated benefits of SmartTrack are the relief of the congested Yonge subway line, the encouragement of development and the improvement of regional interconnectedness of employment centres (Toronto 2015).

SmartTrack enhances RER largely through additional stations, better-than-15-minute service frequency, fare integration with the Toronto Transit Commission and the connection of Mount Dennis, in west Toronto, to the Mississauga Airport Corporate Centre (Toronto 2015, 2016b). However, key elements – for example, service frequency – of SmartTrack have yet to be sufficiently defined and established, let alone approved (Toronto 2016b). With the precise form of SmartTrack still being developed, a definitive estimate of its cost will not be revealed until the project is fully defined, including the nature of its integration with RER, and brought to City of Toronto Council for approval in June, 2016 (Toronto, 2016d).

Based on the 2015 and 2016 Ontario Budgets and various City of Toronto reports, however, it seems clear that SmartTrack constitutes a part of, as well as an enhancement to, RER, where the overlap between the two plans represents about \$2.6 billion, which is to be funded by Ontario through its investment in RER (Ontario, 2016). In addition, the federal government has committed to paying for one-third of SmartTrack's cost to a maximum of \$2.6 billion.

Along with TIF, Toronto is currently considering development rights sales, development charges, and general property taxes as tools to finance SmartTrack (Toronto 2015). A recent briefing submitted to City of Toronto budget committee outlined an array of potential new revenue tools (such as parking space levies) (Toronto 2016a). Should one or more such tools be used in place of TIF to finance SmartTrack, their negative impact on investment would need to be weighed against the efficiency benefits of TIF.

Table 1: Maximum TIF-Supportable Debenture (\$ Billions)

TIF Application	TIF District Tax Rate Policy	Uplift Intensity		
		Low	Medium	High
(2016 \$ billions)				
Blended	City-Wide Status Quo	2.1	3.2	4.3
Uplift-only	City-Wide Status Quo Plus 80 Percent Uplift Extraction	4.6	7.1	9.9

Source: Author's calculations as described in the online Appendix.

Hypothetical Case Study: Potential Application of TIF to SmartTrack

During the 2014 City of Toronto mayoralty race, candidate (and now mayor) John Tory proposed using TIF to help finance his SmartTrack transit plan (Lofsky 2014); see Box 1 for details on the project. There is substantial evidence to suggest that the benefits of transit infrastructure improvements such as SmartTrack increase the demand for land and, therefore, are capitalized into land values, resulting in the intensification and acceleration of development (N. Barry Lyon Consultants 2011; Toronto 2015; Zegras, Jiang, Grillo 2013, and SRRRA 2016). With respect to SmartTrack, it would be reasonable to consider the general and area-specific components of these benefits and investigate whether TIF is a viable financing tool. This exercise should account for Ontario's property tax system and the degree to which it, under the *TIF Act* and within political and legislative constraints, could be modified to maximize TIF's revenue-generation capacity.

Based on Toronto (2015), Toronto (2016d), SRRRA (2016) and a number of simplifications and assumptions detailed in the online Appendix, Table 1 illustrates the revenue-generation potential of some hypothetical SmartTrack-related TIF scenarios based strictly on the municipal side of the property tax. The measure of revenue potential is the maximum 30-year debenture principal that the City of Toronto can service and retire with TIF. Conservatively based on N. Barry Lyon (2011) and SRRRA (2016), uplift intensity scenarios correspond to 5, 7.5 and 10 percent values for SmartTrack's uplift, as measured by an increase in average obtainable net rent for floor space near SmartTrack-improved or -developed nodes (stations).⁴

While these results are hypothetical and depend on the various assumptions made in the online Appendix, this exercise illustrates the potential of TIF to provide the City of Toronto with substantial new revenue to dedicate to its share of the cost of SmartTrack. It also exhibits the superior revenue potential of uplift-only TIF over blended TIF.

⁴ Uplift ranges estimated by N. Barry Lyon (2011) and SRRRA (2016) are 5-15 percent and 10-20 percent, respectively.

Conclusion

Governments are looking for innovative tools to finance infrastructure. Among those they should consider is tax increment financing, which provides a way to raise additional property tax revenue while minimizing, within the constraints of a conventional property tax system, the harmful effects of taxing development investment. Ontario is one of the few jurisdictions in North America that has yet to implement TIF, despite having TIF legislation in place for almost a decade.

Although SmartTrack enjoys provincial and federal support and appears to be an eligible candidate for TIF, the actual implementation and revenue-generation capacity of TIF will depend heavily on, among other factors, the extent of SmartTrack's uplift, how the TIF scheme is structured and on successful collaboration with the province. In particular, the City of Toronto might wish to consider the advantages of uplift-only TIF over blended TIF. These include the former's greater revenue potential, lower revenue risk exposure, reservation of development-related tax increments to meet corresponding incremental general municipal servicing demands, and its avoidance of adverse tax impacts on development investment.

It is the province, however, that ultimately will determine if and when the regulations required to activate the *TIF Act* are enacted, and whether and to what extent TIF will be used to finance SmartTrack. The successful application of TIF to SmartTrack could pave the way for more extensive consideration and use of TIF throughout Ontario, and perhaps the rest of Canada. This is a good reason to follow Toronto's progress over 2016 as it develops and refines the SmartTrack plan.

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