

Fiscal Impacts of TOD

Full methodology and findings

Author: Alexander Hempel

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1 PURPOSE AND CONTEXT

The objective of this fiscal impact analysis is to understand the net fiscal impact of each transit-oriented development (TOD) scenario outlined in the overall project on municipal governments.¹ Details on each scenario can be found in other project documents. This appendix will provide full details on how the findings of the report were determined.

2 FISCAL ACCOUNTING FRAMEWORK

A preliminary challenge is that TODs affect several components of the municipal budget in such a way that there is no single number that captures the overall impact of a TOD. This section will discuss the key metrics that are used in the analysis to understand the fiscal impact of these developments.

2.1 NET OPERATING IMPACT

The first consideration is the impact on the operating budget. This includes both the impact on recurring revenues and the impact on operating expenditures for the municipality. Recurring revenues are affected through two channels. TODs lead to the creation of new units that generate property tax revenue, but also a higher population that pays for permits and service fees that go to the municipality. Operating expenditures are affected through higher expenditures on existing municipal services that are used by new residents as well as the costs of operating and maintaining new infrastructure that is built in response to the TOD. The *net operating impact* can be summarized accordingly:

$$\text{Net Operating Impact} = (T_{\text{proptax}} + T_{\text{other}}) - (C_{\text{operating}})$$

The net operating impact can be considered on an annual basis, either as a total impact or on a per-unit or per-person level. The impact will be positive if the

¹ The focus will be on municipal budgets because the impacts on provincial and federal budgets (such as income or corporate tax revenues) are much less direct.

revenue generated from property taxes and other sources is higher than the costs that would be imposed on the system.

The net operating impact will depend on a few features of a TOD and its future residents. First, the value of newly built properties will play an important role here. If the market rate for newly built units is higher than the municipality average, then these units should raise per-unit operating revenues. This is likely the case with TODs since new units are generally more valuable than the average property, which can be decades old in some cities. Second, net revenue on the provision of services will also play a role. The direction of this impact from TODs is less clear, with some factors, like higher transit fares or lower road maintenance costs, pointing to improvements in the operating budget, while others, like involvement in city programming, being less obvious. This second feature is something that will not be captured well in the data, which only measures municipality-wide averages.

2.2 NET CAPITAL IMPACT

The second consideration is the impact on the capital budget. Several Canadian municipalities² adopt a “growth pays for growth” mentality towards capital expenditure. This involves imposing development charges (DCs) on developers that are meant to be put towards financing large capital expenditures related to the new development. In many Canadian municipalities, these development charges (DCs) have become one of the main sources of revenue for capital-related expenses. The *net capital impact* can then be summarized as the difference between DC revenue (and other development related fees) and capital expenditures:

$$\text{Net Capital Impact} = (T_{\text{DCs}} + T_{\text{other}}) - (C_{\text{capital}})$$

The net capital impact is non-recurring in that the fees are paid once and the expenditures are incurred only one time. In theory, the net capital impact should be zero because the DCs paid by developers should cover exactly the level of capital expenditures required to support the TOD, but in practice this is rarely the case. In the event of a surplus, DCs are typically moved into a reserve fund that can be used for future capital expenditures. In the case of a deficit, the additional capital expenditures have to be financed either through existing

² This is more common in Ontario and British Columbia than Alberta and Quebec.

reserves that are built up over time in the operating budget, other levels of government or even loans.³

The net capital impact is somewhat sensitive to the choice of what constitutes necessary infrastructure. In some cases, there is already existing infrastructure in place, which means additional infrastructure is not required and the capital costs would be lower. In other cases, proposed infrastructure may benefit those far beyond the immediate area, making the capital costs somewhat higher. This analysis will take as given the proposed set of infrastructure projects in each TOD scenario. These infrastructure choices are tailored to each specific setting and do not guarantee a consistent level of service provision across projects. This means that the reason some projects may appear less fiscally beneficial to the municipality is because they are benefitting actual residents more.

The net capital impact in this analysis also ignores general equilibrium effects. In particular, the scale of the development is taken as fixed and it does not depend on the tax or policy environment (e.g. development charges, zoning laws). In practice, high development charges and restrictive zoning policies would discourage some of these large TODs from ever being built. Therefore, these calculations reflect the possible capital impact *provided the project is realized*.

2.3 TOTAL IMPACT

Because the capital impact is a one-off source of revenues and expenditures and the operating budget is a recurring annual effect, some conversions need to be made to combine these two impacts into one total impact. One way is to convert the capital budget elements into annualized equivalents. To do this, this report will follow the logic of the accrual-based accounting framework that forms the basis of provincial accounting standards for municipal finances. If it is assumed that the infrastructure investments will have a lifespan of 40 years (the assumption used here), then the costs can be depreciated over that time. For simplicity, the entire net capital impact will be divided over that time horizon to determine the total annual net impact of the TOD:

$$\text{Net Total Annual Impact} = \text{Net Operating Impact} + \frac{\text{Net Capital Impact}}{\text{Time Horizon}}$$

³ Generally, municipalities in Canada cannot run persistent deficits and there are strict rules around borrowing money. However, in some cases, loans can be used to finance large infrastructure projects with property tax revenues being used to pay back the loan over time.

This net total annual impact provides a single calculation that can be used to judge whether a TOD is imposing pressure on the municipal budget or generating additional revenue for the municipality.

2.4 DYNAMICS OF FISCAL IMPACTS

Another way to combine the operating and capital impacts is to form a projection of the time horizon of these projects. This projection is useful because it helps simulate the cash-flow dynamics of a TOD for a municipality. This is critical because municipalities need to balance their budgets on a cash-basis and any shortfalls need to be covered by accumulated reserves or support from other levels of government.

This projection involves accounting for the fact that each project will take a different amount of time to complete based on the scale of the project and the capacity of the local construction sector. To project the time horizon to complete each project, the number of units of each TOD will be divided by a measure of local annual construction capacity in the municipality.

$$\text{Years to Completion} = \frac{\text{Units in a TOD}}{\text{Measure of Buildable Units per Year}}$$

If it is assumed that the capital impacts will be spread out evenly over this time horizon, then the impact on municipal finances can be traced out over time.⁴

In the years prior to completion, revenues will be equal to incoming development charges for the year plus property tax and other annual revenues from the units built to date. Expenditures will equal the capital costs incurred to date and the annual service costs per resident that had moved in to date.

$$\text{Precompletion Annual Impact} = \text{Net Operating Impact} + \frac{\text{Net Capital Impact}}{\text{Years to Complete}}$$

Post completion of the TOD, the municipality will only realize the net operating impact moving forward.

These impacts can move between positive and negative over time depending on the net operating and capital impacts.

⁴ Another hidden assumption here is that the growth of revenues and costs will largely be consistent in real terms. This is a strong assumption, but forecasting future inflation in revenues and costs is outside the scope of this report.

3 DATA

Since the goal of this project is to develop realistic projections of the impact of TODs, data on a myriad of topics is required. To simplify the exposition, these data can be grouped into a few categories. From the revenue side, this includes: the assessed value of new properties (residential and commercial) in total and per square foot, the property tax rates and development-related charges associated with new construction across cities and the revenue generated from non-property tax sources, such as user fees, permits and fines. From the expenditure side, this includes the costs to the municipality of building needed capital infrastructure as well as per capita operating costs. Finally, additional information on housing starts is needed to analyze the fiscal dynamics.

A priority of this analysis is to ensure that the data used is consistent across municipalities. As a result of using datasets with national coverage, in some cases assumptions about revenues and costs will come from municipality-wide measures that may not be tailored directly to the exact location of a TOD. Therefore, one limitation of this analysis is that within-municipality dynamics of revenues and costs will not be perfectly captured in some cases.

3.1 REVENUES

3.1.1 Assessed Value of New Properties

The assessed value of new properties is an essential input in determining property tax revenues for the municipality. For this project, we will make some assumptions about the value of units that will be built in the TODs. The main assumption is that the assessed value of the units will be comparable to current average market rates for new units in each municipality on a per-square foot basis.⁵ This means that the amenity level assumed here is equal to that of recently built units. Whether this is accurate is difficult to say without more information, but it will notably not be capitalizing the proximity to transit into the value of the property, nor the value of any parking earmarked for the TOD. A second assumption is that although there are some affordable units specified in the TOD plans, these units will be assessed at their market value – which will be equal to the other units.

⁵ For most provinces, assessed values of new units are generally based on market rates in that year or in the year prior. However, in Ontario, assessed values are based on 2016 values. To correct for this, market prices for Ontario are scaled down to 2016 values according to the *Teranet Home Price Index*. Using the Toronto CMA as a benchmark, prices in 2016 were around 60% of market prices in 2024 and 2025.

To determine the average assessment value of new residential properties, it is important to understand the current price of newly built units in cities across Canada. Prices of newly built units and the older housing stock are likely to differ, especially on a per square foot basis, so it is crucial to use prices from newer units to have a representative assessment value. This is done using Canada Mortgage and Housing Corporation's (CMHC's) *Market Absorption Survey*, which is a national survey on newly constructed housing units.

The *Market Absorption Survey* contains tabulations of newly absorbed housing units (recently built and purchased) by price range across Canadian CMAs and the municipalities therein. Average prices for apartments by municipality are computed as a weighted average of price-range midpoints for all recorded transactions over the most recent year - from Q3 2024 to Q2 2025. The focus will be on the price of apartments since the TOD proposals are mostly apartments.

Converting these to price-per-square-foot values requires knowledge of unit sizes. This information is difficult to find in Canada consistently for all municipalities, so certain assumptions will be made supported by evidence that does exist. This report will assume that the newly absorbed units are around 700 square feet on average, which is consistent with data from the *Canadian Housing Statistics Program* that shows that units built from 2016 to 2017 in Mississauga, Waterloo and Vancouver were about that size on average.⁶ Based on this size assumption, we can construct realistic price-per-square foot values for each case study.

Finally, these TODs include space for commercial retail properties and office buildings, whose assessment values contribute to the commercial property tax base. To estimate the value of new retail and office properties in the case study TODs, we use information from Altus Group's *Canadian Property Tax Rate Benchmark Report*. The report provides the assessment value per square foot for a benchmark property⁷ across several Canadian cities.⁸ While assessed values differ from sale prices, this is the number that is important for this analysis as municipal revenues are the focus.

⁶ See *Statistics Canada Table 46100028*.

⁷ A benchmark retail property is defined as being built after 2000, having more than 3,000 square feet and locating in a non-anchored strip. A benchmark office property is defined as being over 100,000 square feet and over 5 storeys tall.

⁸ The only case study city not included in this report is Waterloo. Values for Waterloo are imputed using information from CBRE's *Canada Retail Rent Survey* where the ratio of the Mixed Use – Urban net asking rental rates between Waterloo and the GTA is used on the Altus Group's assessment value for commercial retail and offices in the GTA.

Table 1 presents the baseline assessment values for each project. Vancouver has the largest price-per-square-foot (ppsf) of the municipalities studied for this project at \$2,435/sf, while Waterloo has the lowest at \$485/sf and Edmonton is next lowest at \$575. For retail properties, Vancouver has the highest value at \$852/sf, but Brossard (Montreal specifically) has the lowest value at \$221/sf. This considerable heterogeneity in assessment values suggests that the fiscal impacts of TOD will vary substantially across municipalities.

Table 1: Residential and Commercial Average Prices by Municipality, 2024-2025

Project	Region	Assessed Value (\$)	Residential PPSF (\$)	Retail PPSF (\$)
Arbutus	Vancouver	1,704,598	2,435	852
Cooksville	Mississauga	442,640*	632	352
McKernan-Belgravia	Edmonton	402,609	575	384
Northfield	Waterloo	339,175*	485	293*
Panama	Montreal	540,976	773	221

Note: Residential values come from CMHC's Market Absorption Survey from Q3 2024 to Q2 2025. Ontario assessed values are scaled down to 2016 benchmarks using the Teranet Home Price Index. Commercial values come from Altus Group's Canadian Property Tax Rate Benchmark Report from 2024. The value for Waterloo is imputed based on the relative values from CBRE's Canada Retail Rent Survey. Price-per-square-foot values are based on units being 700 sqft.

3.1.2 Property Taxes and Development Charges

While property tax rates are fairly straightforward, development-based charges are a bit more complicated in some cities. Residential property tax rates are taken from information published on municipal websites for the most recent available year.⁹ In cases where the rate varies by housing type, the rate for multi-unit or new multi-unit residential is used. For commercial property tax rates, the general commercial or retail rate is used.

The way development-based charges are collected varies across provinces and municipalities. Development-based charges are paid upfront by developers when receiving building permits to cover the cost of capital expenditures related to the development. In Waterloo and Mississauga, there is a flat development charge (DC) per unit, with Mississauga charging a higher rate for units that are over 750 square feet.

Information on development-based charges for the remaining municipalities bundles several types of fees, from application fees to building permit fees that sometimes depend on the size of the unit. For Vancouver and Edmonton, estimates on a per square foot basis come from the Canadian Home Builders' Association *Municipal Benchmarking 2024 Study*, while for Brossard, estimates

⁹ For some municipalities this will be their 2025 tax rates, while for others this will be 2024.

come from a July 2022 CMHC *Housing Market Insight* on development charges in large Canadian CMAs.

Table 2 shows the property tax mill rates for both residential and commercial properties as well as the development charges, either per-unit or per-square foot, across cities. Vancouver has low property taxes rates and higher development charges, while Waterloo has higher property taxes and lower development charges. Some of this is to account for the higher property values in Vancouver relative to other cities, but differences remain across cities in terms of the effective rate.

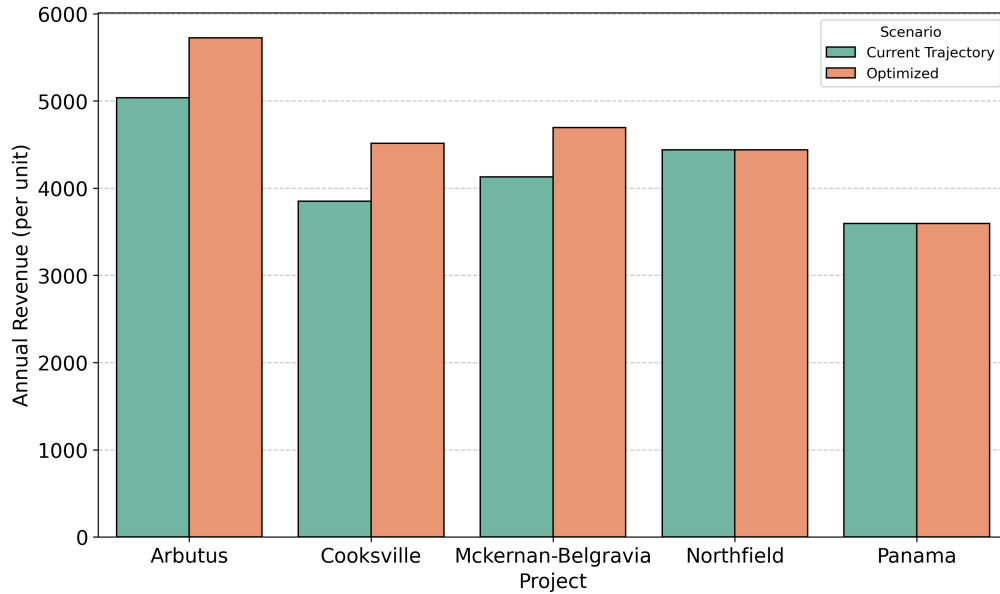
Table 2: Property Tax Rates and Development Charges by Type Across Cities

Project	Region	Residential Tax Rate	Commercial Tax Rate	DC (\$)	DC (\$/sf)
Arbutus	Vancouver	3.118	11.134		172
Cooksville	Mississauga	9.466	20.839	54,749 (<750 sf) 97,676 (>750 sf)	
McKernan-Belgravia	Edmonton	10.825	28.272		10
Northfield	Waterloo	12.725	30.630	22,685	
Panama	Brossard	5.831	26.100		15

Note: Tax rates and development charges come from municipal websites. They are written as mill rates, which means they should be divided by 1,000 to get the percentage of the property value charged in tax. Development charges per square foot come from the CHBA's Municipal Benchmarking 2024 Study. Development charges for Brossard come from a CMHC Housing Market Insight from July 2022.

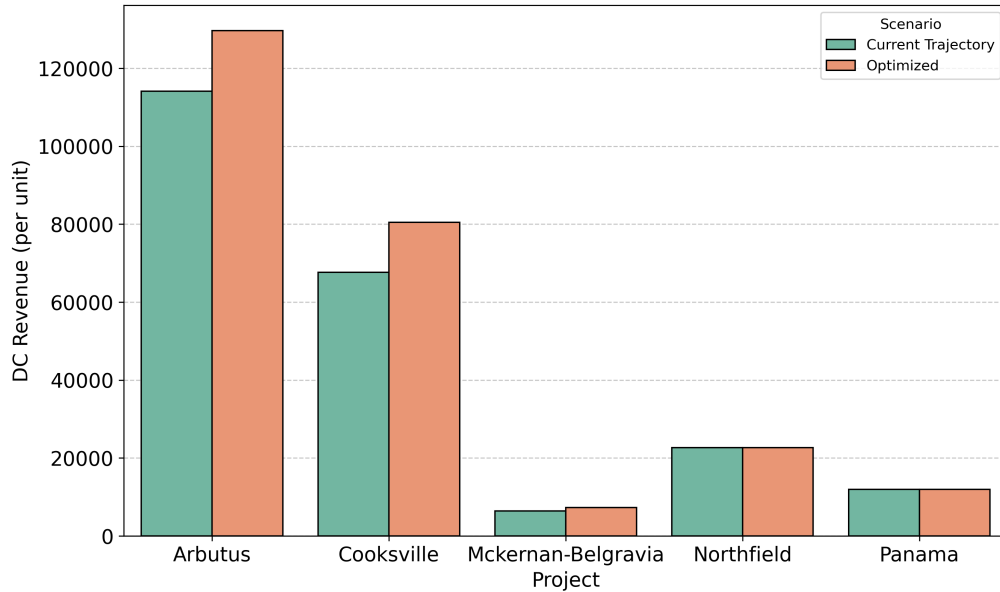
The effective average annual residential property tax revenue generated per unit in the different case studies is shown in Figure 1. The effective rate combines the assessed values of new units with the property tax rate charged. The figure shows that although Vancouver has very high assessment values, they have a lower property tax rate to compensate, which puts the actual average property tax bill per unit in the middle of the case study pack.

Figure 1: Annual Residential Property Tax Revenue Per Unit of Proposed Scenario



Note: This figure presents the average annual property tax revenue collected from new units built in each TOD scenario. Property tax rates for new, multi-residential units are collected from municipal websites and multiplied by assessed values determined based on CMHCs Market Absorption Survey.

Figure 2: Development-Related Charges Per Unit of Proposed Scenarios



Note: This figure presents the average development-related charge revenue per unit built under each TOD scenario. Data for Cooksville and Northfield comes from municipal websites, while information for Arbutus, Mckernan-Belgravia and Panama come from two separate studies documenting average per square-foot charges of new development.

Figure 2 plots the development-related charges across the different case study municipalities and scenarios. In the first three cases, the scenarios differ on a per-unit basis because the composition of unit types vary. This figure shows that Vancouver and Mississauga have very high fees on new development relative to the other case studies. Development charge revenue also increases as units increase in size, as indicated by moving from scenario 2 to scenario 3, which may suggest a possible reason why developers often favour small units.

These results highlight a key missing element of the overall TOD analysis, which is the likelihood of these TOD plans being built in practice. At the moment, the report assumes that each TOD will be built given the current tax rate regime. However, some municipalities have much higher tax rates than others, which lead to higher revenue in a static sense, but could also result in fewer units built, which would reduce revenue. With the number of units assumed fixed in this report, this dynamic will not be captured and therefore the fiscal impact results should be interpreted with this in mind.

3.1.3 Other Sources of Revenue

Finally, new residents contribute to municipal revenues through other streams unrelated to property taxes. This report will focus mainly on user fees, permits and fines and will not include capital income or government transfers. User fees, permits and fines can increase with new residents as they use transit, pay for city parking, pay parking tickets or sign-up for city programming. It will be assumed that new residents generate revenue equal to the average resident of the municipality they are moving to.¹⁰

Municipal revenues from user fees, permits and fines are recorded annually in municipalities' *Financial Information Return*. The most recent data with consistent values across provinces is 2022, so these values will be used. To get the average, per-capita values, the total revenue is divided by the population of the municipality (CSD).¹¹

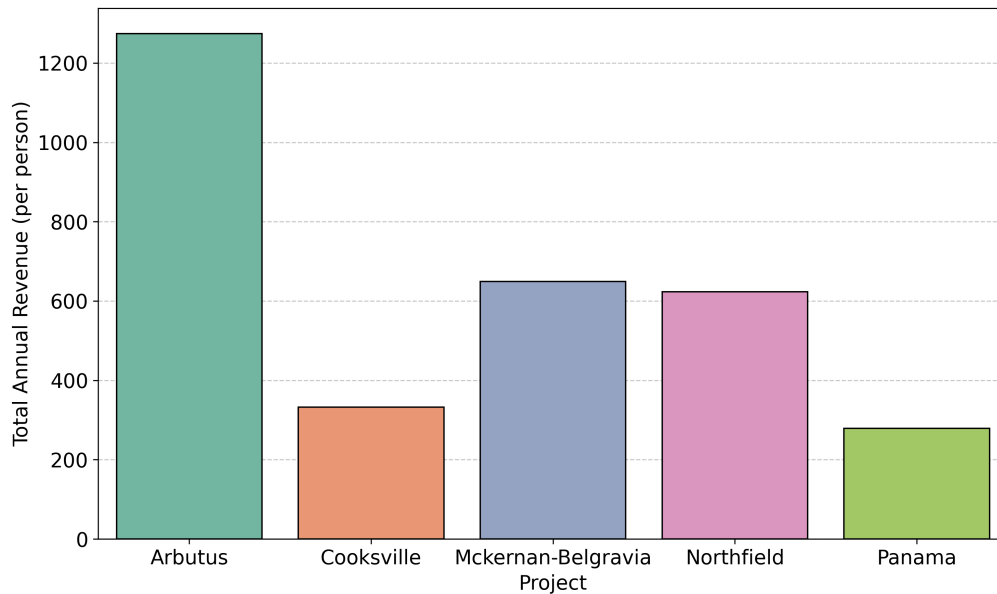
Figure 3 presents the average, per-capita values across different municipalities. Vancouver has the highest revenues from these sources.¹² Mississauga and Brossard (both suburbs) see very little revenue from these sources comparatively. These revenues are in addition to the property tax revenues discussed above.

¹⁰ While this may not be a reasonable assumption – those who live in these TODs may use public services more than the average – it is next to impossible to measure public service usage by place of residence.

¹¹ As found in *Statistics Canada Table 17100155*

¹² This data captures revenue for the municipal government and not other levels of government (such as regional governments) or private agencies (such as TransLink in Vancouver).

Figure 3: Annual Non-Property Tax Revenue Per-Capita Across Cities, 2022



Note: This figure presents the average annual, per-capita revenue generated from user fees, permits and fines across Canadian municipalities in 2022. These data are pulled from each municipality's Financial Information Return.

3.1.4 Total Revenues

The total revenues from all these sources of the proposed TODs can be broken down into annually recurring revenues and one-time payments. Figure 4 presents the total annual revenue generated from each scenario by revenue source. This represents the per-unit property tax revenue multiplied by the number of units, the revenue generated from commercial retail space in the TOD and the increased revenue from new residents that does not come from property taxes.

The first observation is that the proposed Cooksville TOD is massive compared to the other case studies. It has nearly three times the number of units as the next largest proposal (Northfield) and correspondingly has the largest total impact on future municipal revenues. A second observation is that commercial property tax revenue is fairly minor as a share of overall revenue. The one case study where this is less true is the Panama (Brossard) case study. The Arbutus and McKernan-Belgravia case studies see little in terms of increased commercial development, which explains the low commercial property tax revenue. Finally, per-capita revenue from newcomers is non-negligible, but also a relatively small factor compared to property tax revenue.

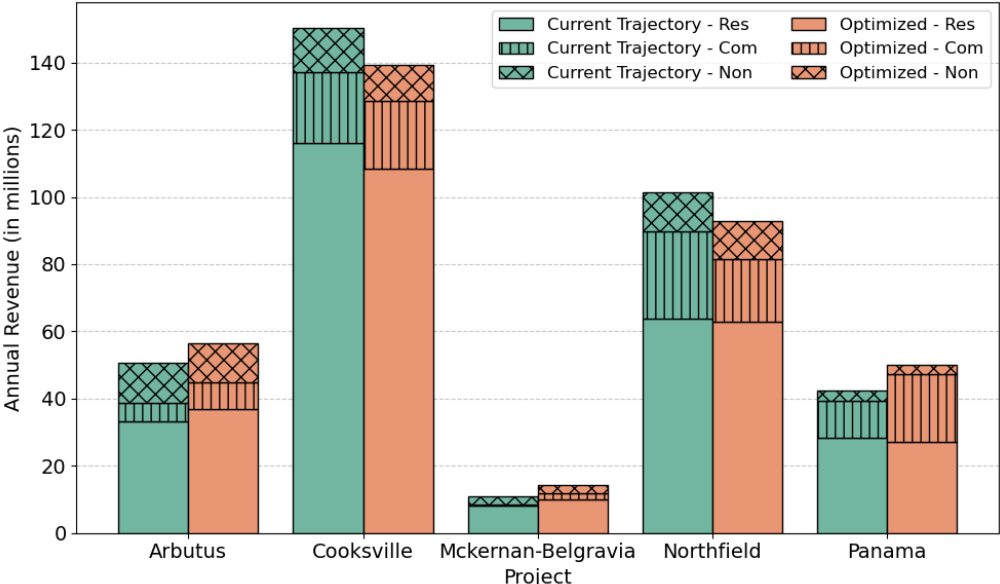
Figure 5 shows how total revenue *per-person* varies across case studies. What is notable is that most of the case-studies have similar total revenue per-person

with the exception of the McKernan-Belgravia case study. There are a couple explanations for this. First, property tax revenue per-person is somewhat lower in Edmonton, in part because the number of people per unit is higher than in other case studies. Second, there is little commercial retail added in this case study, meaning that little additional revenue comes from that source.

Figure 6 shows the total impact of the TODs on development-related charge revenues across case study scenarios. Here, although development charges are higher in Vancouver than Mississauga, there are more units in the Cooksville TOD proposal, which increases the total revenue to over \$2 billion in the “Current Trajectory” scenario. Again, caution should be used when interpreting these estimates since high development charges have a negative impact on the

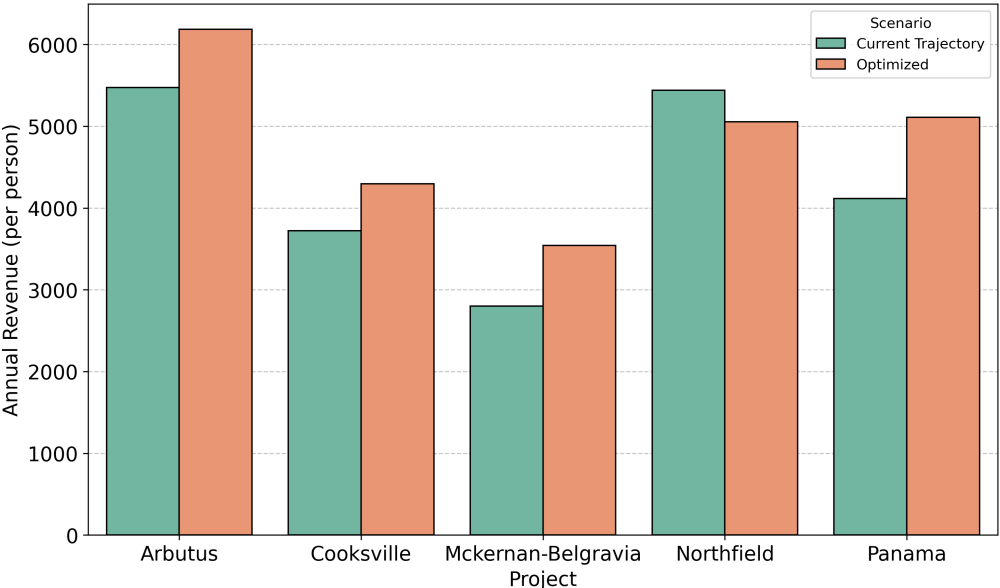
decision to build these large projects in the first place. It may take many years to realize these development charge revenues, or they may never materialize.

Figure 4: Total Annual Revenue in Each Scenario by Revenue Source



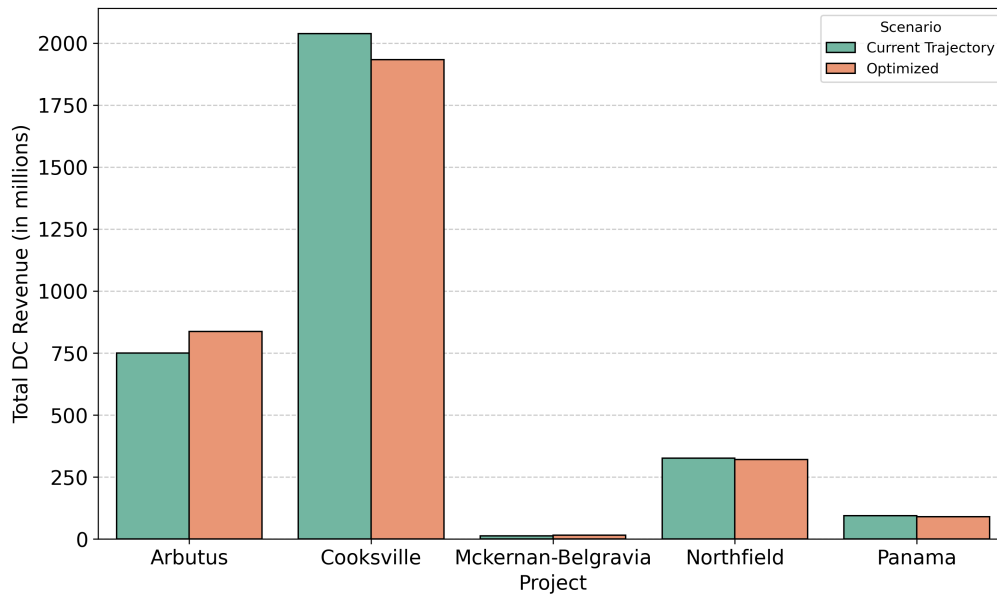
Note: This figure presents the total annual revenue generated from each case study scenario by revenue source. The bars show how the total breaks down between residential property tax revenue, commercial property tax revenue and revenue from non-tax sources such as user fees and permits.

Figure 5: Total Annual Municipal Revenue Per-Person in Each Scenario



Note: This figure presents the total annual revenue generated from each case study scenario on a per-person basis. Total revenue is made up of residential property tax revenue, commercial property tax revenue and revenue from non-tax sources such as user fees and permits.

Figure 6: Total Development-Related Charge Revenue in Each Scenario



Note: This figure presents the total development-related charge revenue in the different TOD scenarios across municipalities.

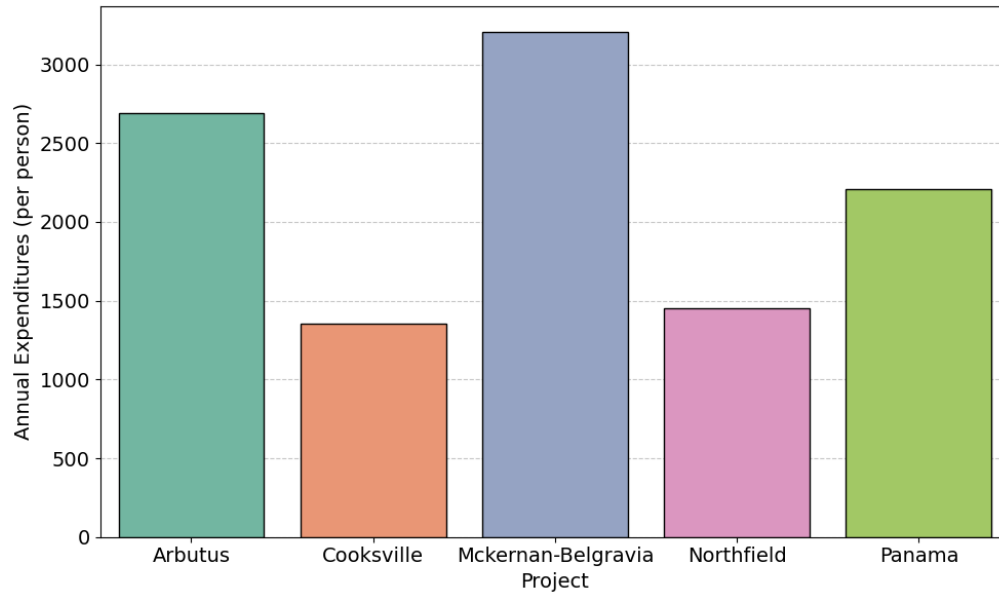
3.2 MUNICIPAL COSTS ASSOCIATED WITH NEW DEVELOPMENT

Although the revenue angle is a positive for municipalities, many municipal leaders are concerned about the potential costs involved with supporting growing areas. This section will describe the steps taken to measure the potential costs associated with these TODs based on the proposed capital investments the city would be responsible for in the TOD designs.

3.2.1 Annual Costs

The first step is to break these costs down into up-front capital costs and long-term operational costs. Long-term operational costs are the additional annual expenses incurred as a result of a growing population. This can include spending on a larger municipal government, increased maintenance costs due to greater usage of roads and other infrastructure and higher spending on social services. The level of operational spending per-person can vary substantially across municipalities depending on the types of infrastructure the municipality supports, with public transit being a larger line item for some cities than others.

Figure 7: Annual Expenditure Per Resident Across Municipalities



Note: This figure plots the annual expenditure per resident across the different municipalities. Expenditures include both operational expenses and capital expenditures whose costs are depreciated over several years.

Figure 7 plots the annual expenditure per resident across the different municipalities. Like for non-property tax revenues, data comes from the *Financial Information Return* for municipalities in 2022. There is substantial variation across municipalities, where Edmonton spends around \$3,000 per-resident, per-year, while Mississauga spends far less at just over \$1,000 per-resident, per-year. These differences affect the marginal impact of new TOD on municipalities because the cost to a municipality of ensuring equivalent service to new residents is higher in places with more municipal infrastructure and services.

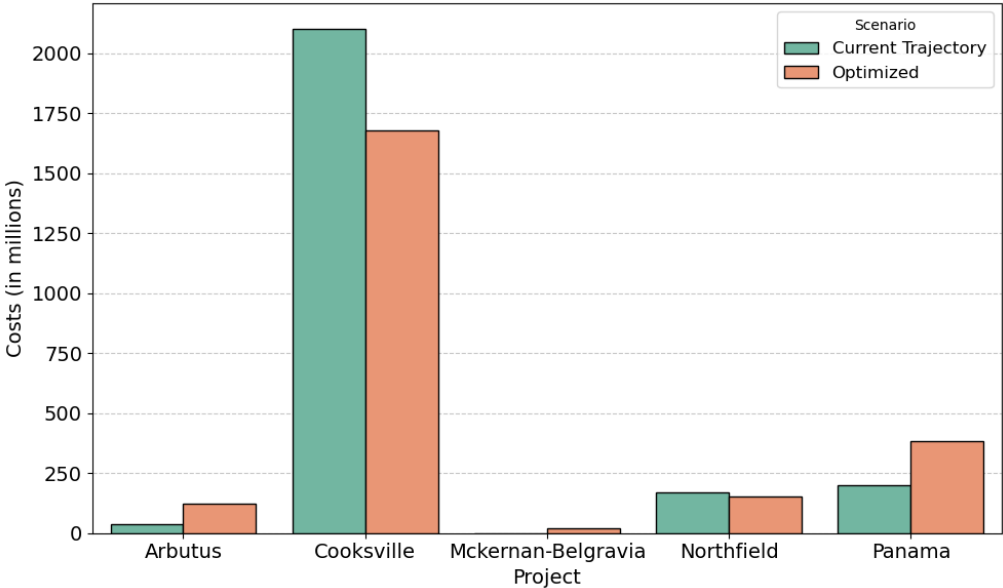
3.2.2 Capital Costs

Up-front capital costs reflect the municipal investments a city needs to make to ensure adequate services are available to new residents. For the proposed TODs, this will mainly comprise of new or renovated schools, community centres and libraries as well as other public services, such as police stations, fire halls, cultural spaces and health services. Capital investments such as parking lots and roads are typically built and paid for by developers up-front before being passed onto the city to pay for maintenance so these will be omitted from the analysis from the perspective of the municipality.¹³

¹³ One omitted capital investment in this analysis are changes to road infrastructure off the development site that may be needed in response to the TOD.

Capital costs are estimated on a per-square foot basis using a combination of information from the TOD proposals and Altus Group's 2025 *Canadian Cost Guide*. In some of the TOD proposals, there are parcels earmarked for important capital investments that would complement the proposed development. These parcels include a proposed gross floor area (GFA) for educational facilities (elementary and high schools), public use (libraries, community centres, police stations...) and community use (social services, daycare, cultural facilities...).¹⁴

Figure 8: Total Capital Costs Across Municipalities



Note: This figure provides an estimate of the total capital costs associated with different TOD scenarios. These capital cost estimates are made using the Altus Group Canadian Cost Guide 2025 and proposed components of the TOD.

I multiply these GFA estimates by a corresponding estimate in the Altus Group cost guide. The baseline results will use the midpoint between the upper and lower bound of the cost guide estimates. For education, the cost estimate for secondary schools is used, which is 500 to 700 \$/sf in the Greater Toronto Area.¹⁵ For public uses, I combine the public and community use GFA and multiply it by a composite of cost-guide line items: library, multi-use community centre and local police detachment station. In the GTA, these estimates are 550 to 1,100

¹⁴ One omission to this list is parkland, which is earmarked in a number of the TODs. Unfortunately, the costs of providing a park can vary widely and are not included in the *Altus Cost Guide*. As a result, it will be assumed that this parkland has a relatively small capital cost.

¹⁵ The estimate for the GTA is also applied to Waterloo, which is the one municipality not included in the cost guide.

\$/sf for libraries, 670 to 1,160 \$/sf for community centres and 600 to 735 \$/sf for police stations. I assign equal weight to each line item.

As can be seen in Figure 8, total capital costs are largest for the Cooksville TOD, which envisions a very large redevelopment full of new public projects. Notably, the optimized scenario, which has larger units, but fewer people, also has less capital investment required. Northfield and Panama also see fairly large investments in infrastructure, while McKernan-Belgravia sees practically no new investment.

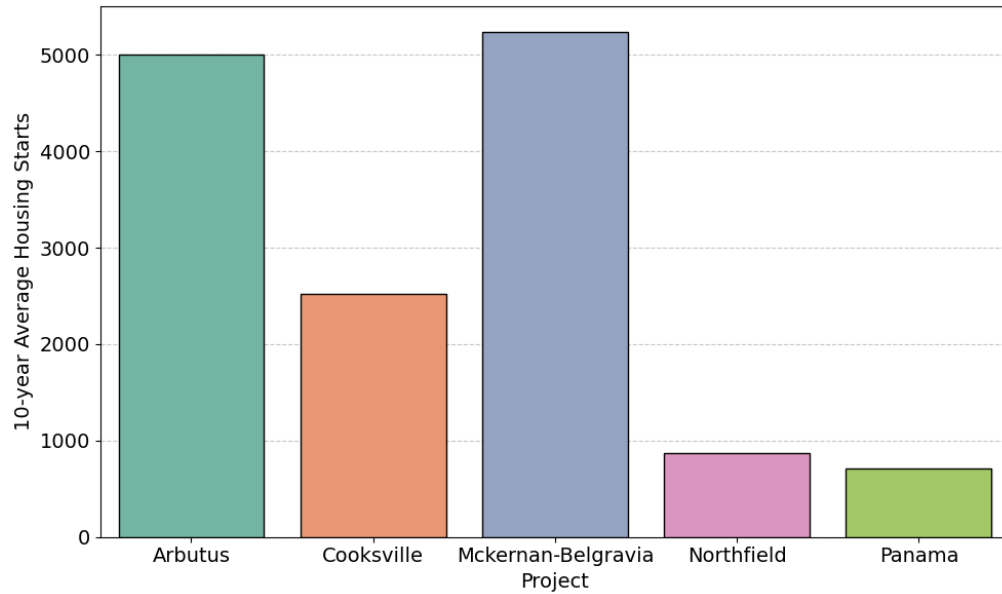
3.3 CONSTRUCTION CAPACITY

The key measure required for the analysis of the dynamics of the fiscal impacts is the construction capacity in each municipality. This is necessary to determine the likely time horizon for the project. Using CMHC’s *Starts and Completions* survey, the ten-year average of housing starts in each municipality is tallied and presented in Figure 11. Vancouver and Edmonton have built around five thousand row and apartment units per year, while Waterloo and Brossard have built less than a thousand per year. We assume two speeds of construction in the simulation. In the faster version, we assume the construction capacity is equal to the historical averages. In the slower version, since construction activity would likely not be entirely dedicated to the proposed TODs in each municipality, it is assumed that the construction capacity is half the average.

This represents a rough approximation meant to contextualize the scale of each TOD project in the municipality’s context. However, it is possible that building could be faster than in the past if there is a concerted focus on the TOD that catalyzes greater interest from the developer community than existed previously. In addition, if land is vacant and separated from existing communities, there could be less consultation required, which could accelerate development timelines. This analysis will showcase how faster or slower building can affect timelines.

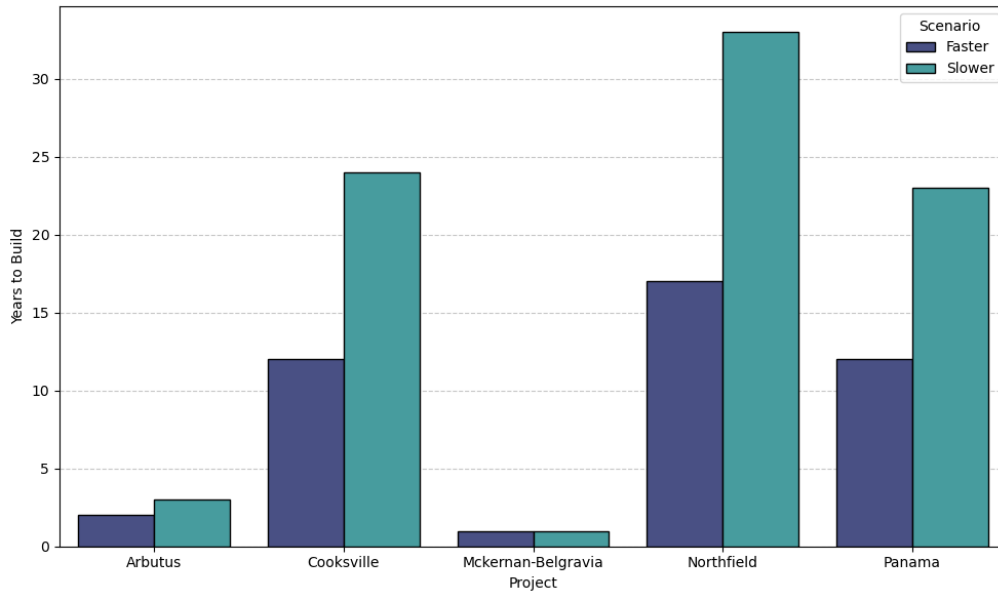
Using the construction capacity estimates, a rough time horizon to build can be approximated. Taking the total number of units in the TOD project and dividing it by the estimated construction capacity yields the time to build for each project. Figure 12 shows that there are two types of TOD project. The Vancouver and Edmonton projects could likely be completed in less than five years, while the Cooksville and Brossard projects have 10-25-year time horizons and Northfield has a 15–30-year time horizon. This will shape how the fiscal impacts affect municipalities in the short and long term.

Figure 9: CMHC Row and Apartment Starts by Municipality, 10-Year Average



Note: This figure plots the 10-year average of housing starts for row and apartment construction across the five municipalities. The data comes from CMHC's Starts and Completions survey. Data is for the ten years ending in December 2024.

Figure 10: Projected Development Timelines by Speed



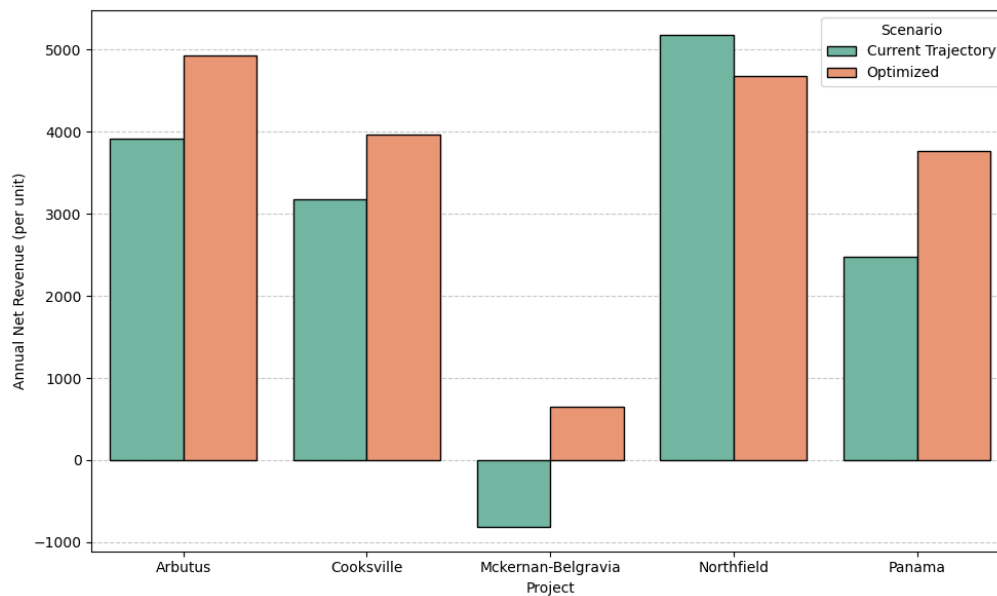
Note: This figure plots the development timelines for each TOD project depending on the speed of building. In the faster scenario, it is assumed half of the historical 10-year development rate for the municipality can be dedicated towards building the project. In the slower scenario, only one-third of the capacity is directed to the TOD.

4 RESULTS

4.1 NET OPERATING IMPACT

Figure 9 presents the net annual revenue per-unit by case study and across different scenarios. This will comprise of annual property tax and non-property tax related revenue minus annual expenditures.

Figure 11: Net Annual Revenues Per-Unit by Project Across Scenarios



Note: This figure plots the net annual revenue per-unit for a municipality across the different case study scenarios. Each bar takes the total annual revenue per-unit and subtracts the expenditure per-unit from the Financial Information Return of each municipality.

In most case studies, the net impact of the new development is positive – sometimes very positive. Most municipalities other than Edmonton have large positive net operating impacts per unit, which means that adding these new units should not impose substantial ongoing costs. The one city where the net impact is negative is in Edmonton, in the current trajectory scenario. This is driven in part by the fact that the units proposed in the Mckernan-Belgravia TOD do not have the largest property value. This is due to both the lower value of housing in Edmonton and the fact that there are more people living per unit in Edmonton, which raises the per-person servicing costs without generating more per-unit revenue.

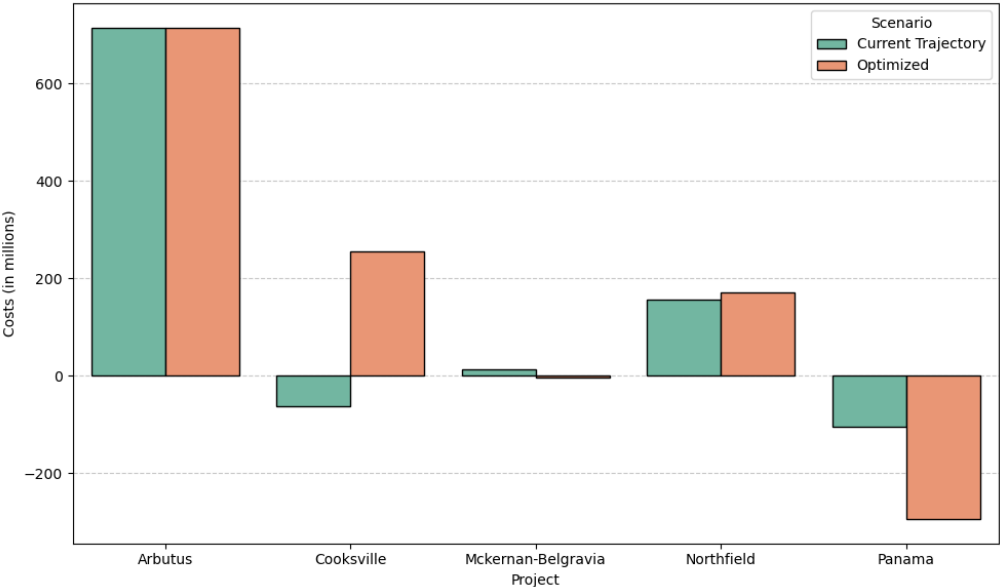
4.2 NET CAPITAL IMPACT

Turning to the up-front capital costs, Figure 10 plots the net capital costs across projects and TOD scenarios. While development charges are meant to cover

the capital costs of development, they are calculated on a municipality-wide basis. As a result, some developments may be more or less capital intensive – leading to relative surpluses for the municipality across the different scenarios. Additional revenues can then be allocated to other capital projects or reserves, while deficits will have to be funded through other revenues streams such as property taxes, accumulated reserves or support from other levels of government.

The figure shows large variation across projects in terms of the net impact on development-related charge reserves. For the Arbutus (Vancouver) project, there would be a large, net-positive effect on development-related charge reserves of over \$600 million. The Panama (Brossard) example on the other hand, is negative with an over \$200 million shortfall from development-related charges, particularly in the optimized scenario, where more municipal infrastructure (mainly schools) is proposed. The other three cases are relatively capital cost neutral, although the optimized version of the Cooksville TOD is fairly net positive owing in part to a reduction in the size of infrastructure projects to accommodate a more desirable urban built form.

Figure 12: Net Capital Costs Across Projects



Note: This figure plots the net capital costs associated with development across the different TOD scenarios. Development-related charge revenue is meant to cover the cost of capital investment, but this is calculated at the municipal level, not on a project-by-project basis.

There are a few crucial caveats in this analysis. First, municipalities in Quebec rely far less on development-related charges to fund capital investments compared to other municipalities, such as in Ontario. Therefore, revenues

generated through property taxes are expected to be used to bridge this gap. Net negative capital costs in this case are a feature, not a bug.

Second, as mentioned before, it is assumed that all this development occurs at prevailing market prices and at current tax rates. This is a strong assumption because higher development-related charges also reduce the probability of construction. This means that these estimates are an optimistic upper-bound on the net impact of these TODs. It may be optimal for municipalities to reduce DCs in order to encourage investment and maximize revenue – although total revenue could be less than what is portrayed here.

Another interpretation of this is that it may simply take a longer period of time to realize this level of development – potentially decades. In Mississauga's case, the proposed number of units built in the Cooksville TOD would take around thirty years to complete at the current rate of apartment construction across the entire city. This can lead to a disconnect in timing between when the capital investments are paid for and when the DC revenue is received.

4.3 NET TOTAL IMPACT

Figure 13 plots the net total impact across projects and scenarios. This combines the net operating impact and the net capital impact depreciated over a 40-year time horizon. The impacts capture both the per-unit effects and the total number of units in each project.

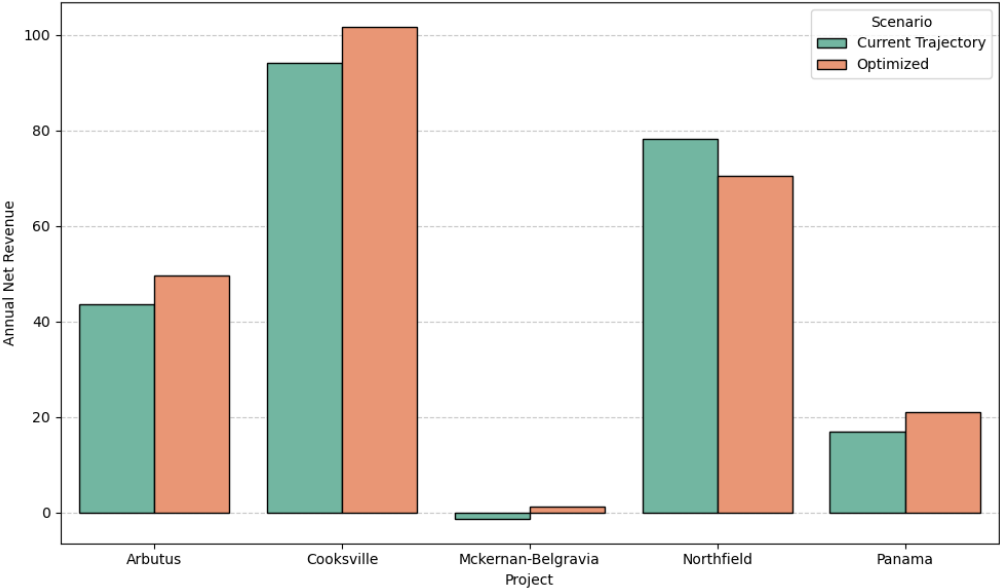
The figure shows that three of the projects are very net positive in both scenarios. Arbutus, Cooksville and Northfield would all generate between \$40 and \$100 million a year for their municipal governments in net additional revenue once the project is completed. Brossard has a more modest impact of \$20 million a year. This mostly captures the fact that these projects are quite positive on the operating budget side of things more so than the capital budget side.

The Cooksville case is particularly interesting because the optimized scenario has a better fiscal impact than the current trajectory scenario. This is because the proposed units are larger, but there are less of them, which means that total revenue is fairly similar despite there being fewer units. In addition, with fewer people, there is less capital investment earmarked for the TOD, which brings down the capital costs. This means that the optimized scenario is better from a fiscal impact perspective and offers residents larger units. However, this comes at the expense of less public infrastructure.

The Edmonton project on the other hand is more breakeven. This reflects the fact that Edmonton has hardly any DC revenue and the operating impacts are near-zero or even negative. In Brossard, positive operating impacts offset

negative capital impacts, which is largely how the Quebec system is meant to work without large DCs.

Figure 13: Net Total Annual Impact Across Projects and Scenarios



Note: This figure plots the net total annual impact associated with development across the different TOD scenarios. This combines the net operating impact with the net capital impact depreciated over a 40-year time horizon. This total impact reflects both the per-unit impacts and the number of units in the project.

4.4 MUNICIPAL FISCAL IMPACT DYNAMICS

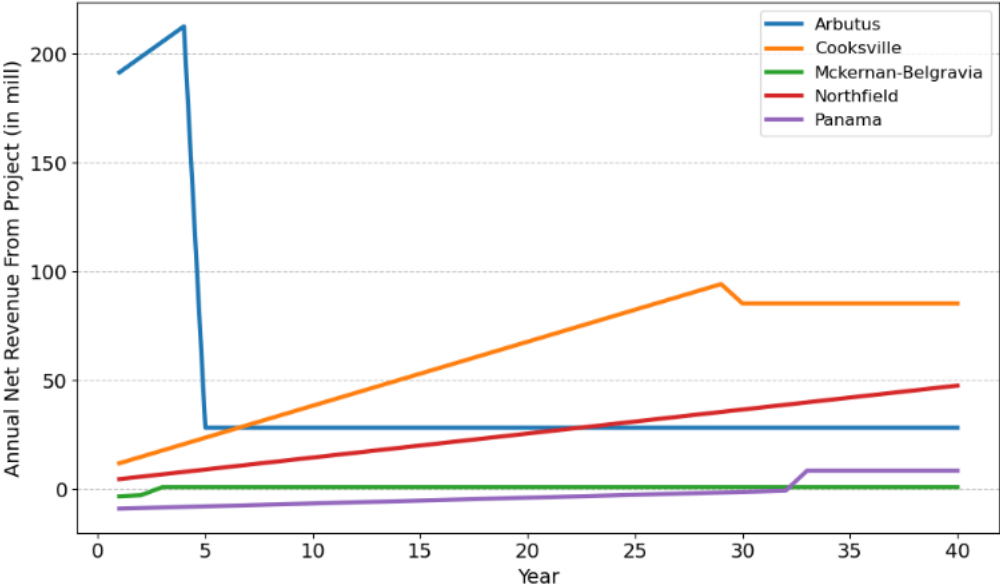
The net total impact calculations help summarize the overall impact of each project, but they do not tell us about timing. Timing is important in the context of TODs because capital costs can be incurred upfront, while revenues may take years to develop. Using projected development time horizons, the trajectory of municipal net revenues can be traced out according to the methods described in previous sections.

Figure 14 shows the net fiscal impact for each municipality in each year that building is happening. This figure focuses on the “Optimized” scenario where building is “slower”. A first observation is that Vancouver sees a sharp drop in net revenues after the third year. This is because Vancouver is able to build the proposed TOD development in less than five years and receives a ton of development-related charge revenue net of capital expenses in a short period of time. After three years, this drops to the level of ongoing annual net revenue that the residents in the newly built units contribute on net each year.

A second observation is that the Brossard example is initially a net negative for municipal finances because of the large capital infrastructure investments

proposed. However, once all the infrastructure investments are made, the TOD will be a net positive on municipal revenues and can begin “paying back” that investment in the community.

Figure 14: Annual Net Revenue by Project Over Time (Optimized, Slow Scenario)



Note: This figure plots the dynamics of municipal finances in each municipality over time in the optimized scenario with slower construction. While construction is taking place, net revenue captures both the net revenue for capital investments and from annual revenue streams (property and non-property tax). After construction ends, net revenue reflects only the annual revenue streams.

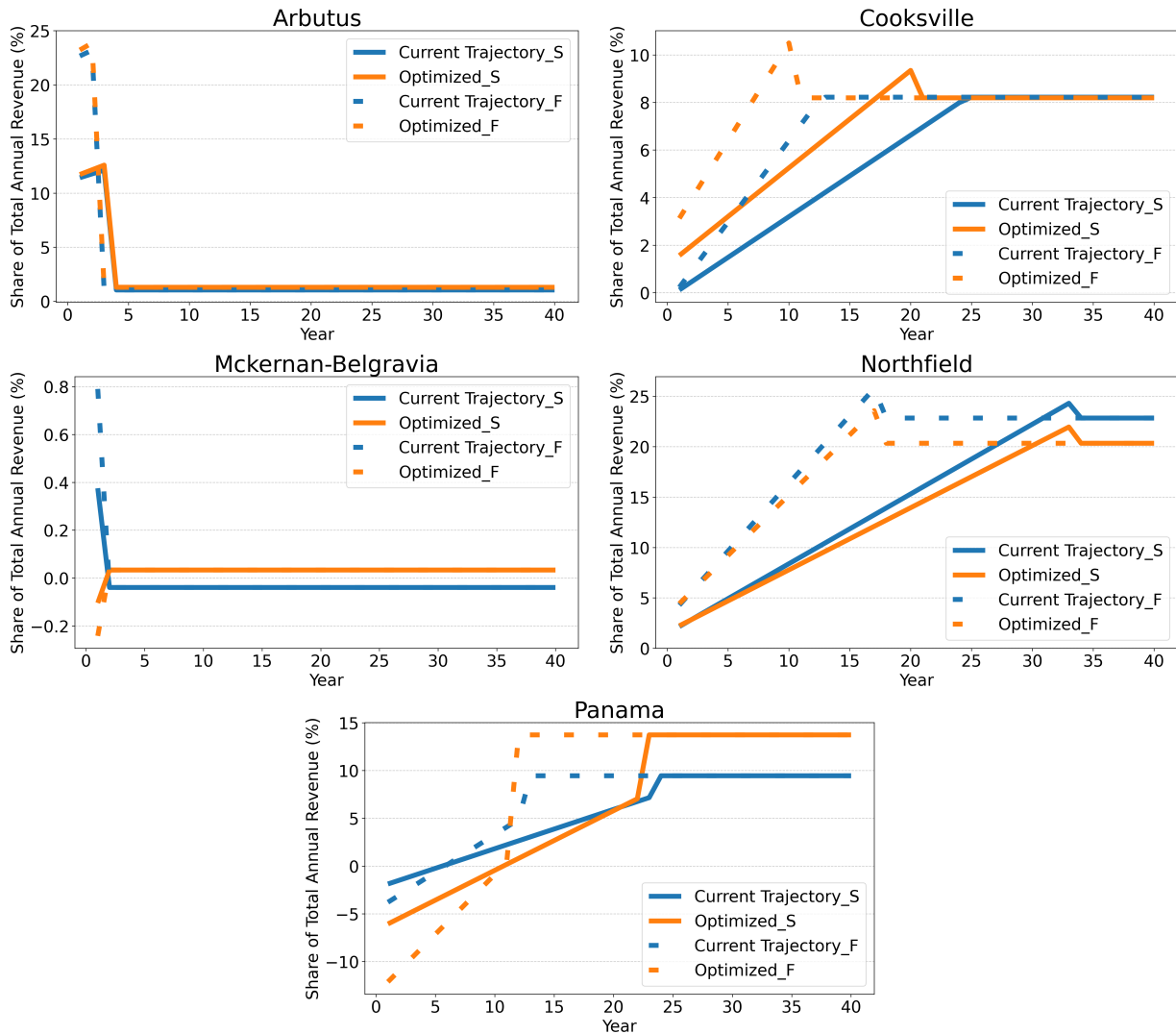
It helps to put these results into some context. In Figure 15, the impacts across scenarios and construction speeds are set as a share of total current annual revenues of each municipality.¹⁶ The different TODs vary substantially in how much they affect each municipalities’ budget outlook. The Arbutus TOD has a large initial impact through the development-related charges, but once built, the development represents about a 1% net increase in revenues. The Cooksville TOD on the other hand has a small initial impact, in part because the massive DC revenues are offset by large capital investments. However, once completed the TOD represents an 8% net increase in revenues for all of Mississauga. Similarly, the Northfield and Panama projects eventually result in an increase in annual revenue of 20-25% and 10-15% respectively, which are massive impacts.

These results also show the importance of finishing the projects faster. For the Cooksville TOD, the net revenue impact is around 50% higher or the revenue

¹⁶ The impacts of Vancouver and Northfield are quite large in percentage terms, but this is because of the level of government used for reference. In both cases, the lower-tier municipal budget is used, which ignores budgets of the regional municipalities that they belong to.

impact is realized twice as soon when construction is faster. For the Panama TOD, the project reaches its potential almost a decade sooner under the faster construction scenario. Encouraging development to occur faster through reduced regulation or lower taxes can also have a meaningful fiscal impact.

Figure 15: Municipal Finance Trajectories by Scenario and Construction Speed



Note: This figure shows how each TOD would affect the municipal budgets of each municipality over a 40-year time period as a share of current total revenue. The blue lines reflect the current trajectory scenario, while the orange lines reflect the optimized scenario. The dotted lines represent a faster rate of construction than the solid lines.

5 CONCLUSION

This report documents the impact of various Transit-Oriented Development (TOD) proposals on municipal finances. TODs can bring in revenue through development-related charges and by expanding the property tax base. However, they can also create costs as municipalities will want new residents to have access to schools, libraries, community centres, police stations, fire halls and other public services. This report explored whether the benefits outweigh the costs for a number of designed TOD templates.

This report largely concludes that the proposed TODs are a net positive for municipal governments. In most cases, the TODs lead to greater revenues than costs and when they do not, they are only marginally negative and only due to the up-front costs. As a result, one could conclude that “growth is paying for growth” for the most part.

However, these results depend on several assumptions made throughout the project. A major one is that these TODs will be built at current prices and tax rates. The report highlights how the per-unit DC revenues in Mississauga and Vancouver are higher than in other municipalities, which leads to higher revenues that can support greater infrastructure investments.

An important caveat in this analysis is that the municipality with the fastest rate of housing starts is also the one with the least positive fiscal impacts. This reflects the fact that development charges are much smaller in that jurisdiction, which encourages more construction. As such, the results highlight an important trade-off between fiscal contributions and the likelihood that projects will actually be built. While TODs can generate substantial fiscal benefits for municipalities, policy environments must also ensure that these projects remain financially viable for developers.

Another assumption is the type of infrastructure investments that are required. In the Brossard example, increasing the level of public infrastructure investment in the optimized scenario leads the TOD into becoming a net liability for the municipality (at least initially). Pining down the exact set of investments required and their costs is an inexact science. This also offers a pathway forward – delivering infrastructure projects in a cost-effective way is crucial in making large development projects successful.