TRANSIT FAST FORWARD

MOUNTAIN VALLEY INSTITUTE

POLICY • RESEARCH • ADVOCACY

Part I: Using Land Value Capture to Fund Transit ⏭

TRANSIT FAST FORWARD

Part I: Using Land Value Capture to Fund Transit

Published by:

MOUNTAIN VALLEY INSTITUTE

Mountain Valley Institute (MVI; formerly MVX) is a Vancouver-based non-profit society advocating for sustainable mobility infrastructure projects that promote generational investments in durable, dignified, and viable transportation choices. Our roots are in building the case for a transformative regional rail network across BC's South Coast, which MVI continues to staunchly advocate for. Founded by commuters, engineers, planners, and experts, MVI envisions a non-polluting, time-competitive transportation system linking Metro Vancouver with the Fraser Valley and Sea-to-Sky—outperforming driving times while promoting sustainable growth and First Nations co-leadership.

Selected publications:

- MVX Nexus - A Technical Report on a Regional Rail Network Serving the South Coast of BC, 2023
- Exploring Sustainable Transportation Solutions: A Study on the Feasibility of MVX Regional Rail in the Fraser Valley - A Collaboration Between Mountain Valley Express and University of the Fraser Valley, 2024

LUTI CONSULTING GROUP

LUTI Consulting specializes in integrated land-use and transport economics, modeling, and policy advisory, leveraging advanced willingness-to-pay and hedonic land-value techniques. Their flagship work includes a 2020 update of their value-creation model for Sydney (covering 2000–2019), analyzing how major public transit investments and zoning changes have reshaped urban land markets—making it one of Australia's most comprehensive land-market studies

The firm's experts—led by Director Dr. James McIntosh and Principals Dr. Roman Trubka and Matthew Yi—bring decades of experience in urban economics, transport planning, econometric modelling, business-case development, and benefits appraisal. Their work has guided public- and private-sector clients through scenario modeling, transit-oriented development strategies, and value-sharing approaches tied to infrastructure investments across Australasia.

ACKNOWLEDGEMENTS

The authors would like to acknowledge Jens Von Bergmann& Dapo Olajide whose knowledge helped contribute to this policy brief.

MVX is now MVI
we're chaninging our name to reflect a broader purpose.

Support for Transit Fast Forward

MOVeMENT

Metro Vancouver desperately needs more rapid transit. It's essential for our economic growth and for social justice. We're tired of watching cities like Toronto, Montreal, and Seattle sprint ahead of us. Transit Fast Forward offers a detailed approach on how to address the key barrier to expansion: money. It shows how transit construction costs can be significantly reduced, and how development can help pay for transit. These have the potential to help break the logjam. I hope to see it discussed widely.

Denis Agar
Executive Director, Movement: Metro Vancouver Transit Riders

TRANSIT COSTS PROJECT NYU Marron Institute of Urban Management

Canadian cities need more and better public transit to drive economic growth, improve quality of life, and advance environmental sustainability. Yet, despite substantial investments, Canada continues to build less transit infrastructure than it should. Construction costs remain significantly higher than in peer developed countries, limiting the country's ability to deliver the transit systems its citizens rely on.

To get better value from public spending, Canada must lower construction costs by adopting proven best practices from jurisdictions that build transit more efficiently and with fewer delays. Transit Fast Forward offers a clear and comprehensive roadmap for the essential reforms in planning, design, procurement, and construction—reforms that will enhance British Columbia's ability to deliver transit infrastructure more affordably and on time.

Marco Chitti
Research Fellow, Transit Cost Project, NYU - Marron Institute

EXECUTIVE SUMMARY

Land value capture involves capturing a portion of the increase in value in properties near new transit stations in the form of charges and taxes to help offset the transit improvement's (often significant) capital costs.

To illustrate the financial potential of transit expansion charges and tax-increment financing as tools for funding transit expansion, a potential transit-oriented area around Macdonald Station was examined, a station that would likely be part of the Millennium Line extension to the University of British Columbia (UBC) Point Grey Campus.

Density assumptions were applied that are consistent with the BC Government's Transit-Oriented Areas (TOA) policy and determined that it would generate $4.29-5.13 B in transit expansion charge revenue. If part of these revenues are used to replace amenity cost charges (ACCs) , there would be $3.99-4.57 B available to offset the capital cost of the extension. Considering there are at least three additional planned stations and the project cost's high estimate is $4.5 B, transit expansion charge revenue may be able to pay for the entire cost of the extension.

Tax-increment revenue was estimated to be an order of magnitude smaller, with the expected net present value of revenues being between $146 M and $283 M. Despite its revenue being significantly less than those of transit expansion charges, TIF should still be considered as a funding mechanism as expected revenues are far more stable as developable land supply becomes more abundant.

KEY RECOMMENDATIONS

- Use transit expansion charges to accelerate transit expansion.
- Create a transit capital fund using surplus transit expansion charge revenue
- Consider TIF as a complementary financing mechanism, especially as housing supply becomes abundant
- Reduce transit costs to ensure land value capture mechanisms remain a viable funding mechanism even as housing supply becomes abundant

Though transit expansion charge revenue likely will not be able to fund the entire capital cost of most transit projects, when combined with other sources of funding, they could accelerate the pace of transit expansion. It is highly recommend they be added as a mechanism to help fund new transit projects.

BACKGROUND

Building new transit infrastructure is capital intensive. With the dual challenges of expanding transit infrastructure and managing limited public funds, innovative financing mechanisms have emerged. Among these, capturing the increase in land value and the implementation of tax-increment financing districts stand out as a strategic approach to generate revenue for transit projects while promoting sustainable urban growth.

Setting the Stage: BC's Transit-Oriented Areas Policy

The British Columbia Government's Transit-Oriented Areas (TOA) policy, introduced in December 2023 through Bill 47, marked a transformative shift in how land use and transit planning are coordinated in the province. The policy mandates that municipalities with major transit infrastructure—such as SkyTrain, West Coast Express, and important bus stations—designate areas around transit stations as "Transit-Oriented Areas" and apply minimum density, height, and use requirements. These requirements aim to ensure that valuable land near transit is efficiently used for housing and mixed-use development, reducing the time and cost it takes to get projects approved and delivering significant housing supply near high-frequency transit.

The TOA policy was groundbreaking by officially recognizing the important link between transit and development and made transit-oriented development (TOD) the law of the land. For the first time in Canada, and one of the first instances in North America, the provincial government set mandatory transit-supportive land use targets that local governments must follow. These include requirements such as up to 20 storeys near major transit stations, and floor space ratios (FSR) of 5.0 or more within 200 metres of stations, with decreasing minimums further out. Municipalities are also barred from imposing additional public hearings or rezoning processes on developments that comply with the new rules.

By setting clear, pre-zoned expectations near transit, the TOA policy cuts red tape and sends a strong signal to developers, communities, and investors. However, the TOA policy only applies to existing transit stations; it does not apply to future transit stations, nor does it include mechanisms to help new transit get built. The purpose of this study is to build off of the current TOA policy and examine its potential extension into a mechanism that could be used to accelerate transit expansion and increases in housing supply.

Understanding Transit Expansion Charges

Transit expansion charges (TECs), similar to amenity cost charges and the sale of development rights, capture the increase in land value resulting from higher permitted densities to fund infrastructure improvements, in this case, the expansion of the transit network. This policy also encourages higher-density developments in targeted areas, particularly around transit hubs, thereby fostering transit-oriented communities.

Revenue derived from developments has two components: density lift and transit access lift. Density lift is the increase in land value that comes from additional density being permitted for a parcel in jurisdictions where permitted buildable floor space is scarce. Transit access lift is the increase in land value that comes from improved access to transit.

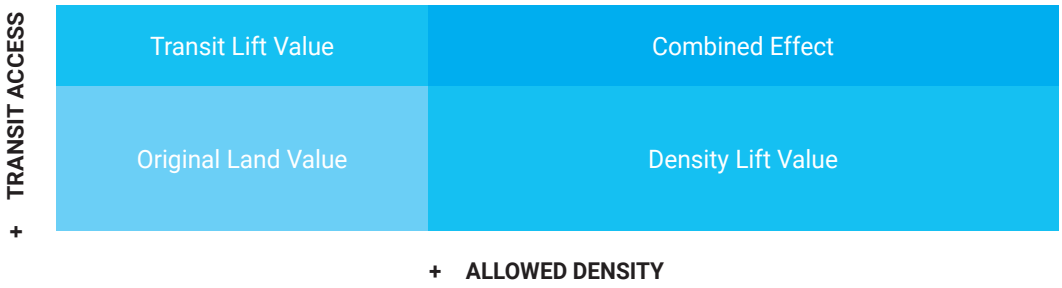
There is a multiplier effect between these components on properties within close proximity of a new transit station: properties benefit from higher allowed densities (under the BC Government's TOA Policy) and improved transit access. Therefore the benefits of new transit and the potential value of transit expansion charges is amplified.

EXAMPLES WHERE POLICIES SIMILAR TO TECS HAVE HELPED FINANCE TRANSIT PROJECTS

Funding transit projects through the sale of development is nothing new. Historically, development was used to finance the construction of the Canadian Pacific Railway and streetcar networks in the early twentieth century. Recently, agencies from the world have rediscovered the importance of development in accelerating transit expansion and supporting on-going operations.

Below are several examples of where development or air rights were used to finance new transit construction.

Figure 1: Effect of Density Lift and Transit Access Lift on Land Values



NEW YORK CITY, USA

The sale of air rights was used to finance the construction of Grand Central Terminal.

SAN FRANCISCO, USA

The Transbay Transit Center's development was partially financed through the sale of land parcels and increased building height allowances. This approach not only funded the transit hub but also spurred the creation of mixed-use developments like the Salesforce Tower.

HONG KONG SAR

Hong Kong's Mass Transit Railway (MTR) Corporation employs the "Rail + Property" (R+P) model. Under this approach, MTR collaborates with developers to build residential and commercial projects above and around new stations. The profits from these developments are then used to fund the construction and maintenance of the transit system. This model has been instrumental in expanding Hong Kong's rail network without heavy reliance on government subsidies.

PARIS, FRANCE

The Régie Autonome des Transports Parisiens (RATP), Paris's public transport operator, has implemented a strategy to monetize its land assets by selling development rights above and adjacent to its operational facilities. This approach aims to generate revenue for modernizing and expanding transit infrastructure.

COPENHAGEN, DENMARK

In the 1990s, Copenhagen faced economic stagnation and lacked a metro system. To address this, the Danish government established the Ørestad Development Corporation (ODC), a special-purpose vehicle tasked with managing the sale and development of vacant land between downtown Copenhagen and Ørestad South. Proceeds from these land sales, along with government-backed loans, financed the construction of the Metro M1 line. By 2013, the metro had an annual ridership of 55 million passengers, and the Ørestad neighborhood experienced significant residential and commercial growth.

ADVANTAGES OF UTILIZING TRANSIT EXPANSION CHARGES

TECs have certain advantages over other land value capture funding mechanisms, especially when it comes to offsetting the capital costs associated with new transit construction:

- **No Added Burden to Taxpayers:** Charging TECs provides significant funding without increasing the burden on taxpayers. If set correctly, they will reflect what the market is willing to pay and should not discourage development in the area from where they are sold.
- **Immediate Revenue Generation:** Unlike property levies or TIF, these funds can be available much sooner, sometimes before project construction has commenced. This reduces the financing costs for major transit projects.

The strategic use of TECs serves as a potent tool for jurisdictions aiming to expand and enhance their transit systems. By aligning urban development with transit planning, municipalities can create sustainable, connected, and vibrant communities. It should be noted that TECs are best used to finance new projects and that other land value capture mechanisms such as real-estate leasing and property levies are better for supporting ongoing operations.

Understanding Tax-Increment Financing

Tax-Increment Financing (TIF) is a public financing tool that allows municipalities to capture future increases in property tax revenue resulting from new development and infrastructure improvements. When a TIF district is established, the current property tax revenue baseline is frozen. As property values rise due to public investments—such as new transit lines, roads, or amenities—the incremental tax revenue (i.e., the difference between the baseline and the new, higher tax revenues) is set aside to repay the costs of those improvements or to finance new ones. This allows cities to borrow against anticipated future tax gains to fund infrastructure upfront, without raising tax rates.

TIF has been widely used across North America, particularly in the United States. Cities like Chicago, Portland, and Denver have used TIF districts to finance redevelopment projects, affordable housing, and transit improvements. Denver's Union Station redevelopment, for example, was partially funded through a TIF mechanism, capturing rising property values in the surrounding area spurred by the transit hub's revitalization. In Canada, the use of TIF has been more limited, but examples include Manitoba's CentrePort Canada and Toronto's East Bayfront project, both of which utilized variations of value capture or TIF-like financing to fund infrastructure.

TIF could be a powerful tool for funding transit expansion in British Columbia and other Canadian provinces, especially as governments face fiscal constraints. By designating TIF districts around new or upgraded transit corridors—such as SkyTrain extensions or new regional rail lines—municipalities could finance stations, utilities, and public realm improvements using the future increase in property tax revenues driven by transit access.

When combined with other land value capture tools, TIF offers a sustainable, locally-driven way to align infrastructure investment with growth, while minimizing reliance on provincial or federal grants. For jurisdictions implementing policies like Transit-Oriented Areas (TOAs), TIF represents a logical next step to leverage the uplift in land value to fund the very transit that makes that uplift possible.

ESTIMATING THE POTENTIAL OF LAND VALUE CAPTURE

Case Study: Macdonald Station

To test the revenue potential of TEC and TIF, Macdonald Station, a future station on the Millennium Line Extension to UBC was chosen.

Macdonald Station serves as a good candidate for testing the viability of these land value capture mechanisms for several reasons. First, is very relevant to the current transit context as the UBC Extension is the next planned rapid transit expansion in Metro Vancouver.

Second, the area around Macdonald Station is mostly low-density residential properties, prime for redevelopment. Lastly, property values in the area are relatively high at over $500 per square foot, meaning that land value capture mechanisms will be even more effective.

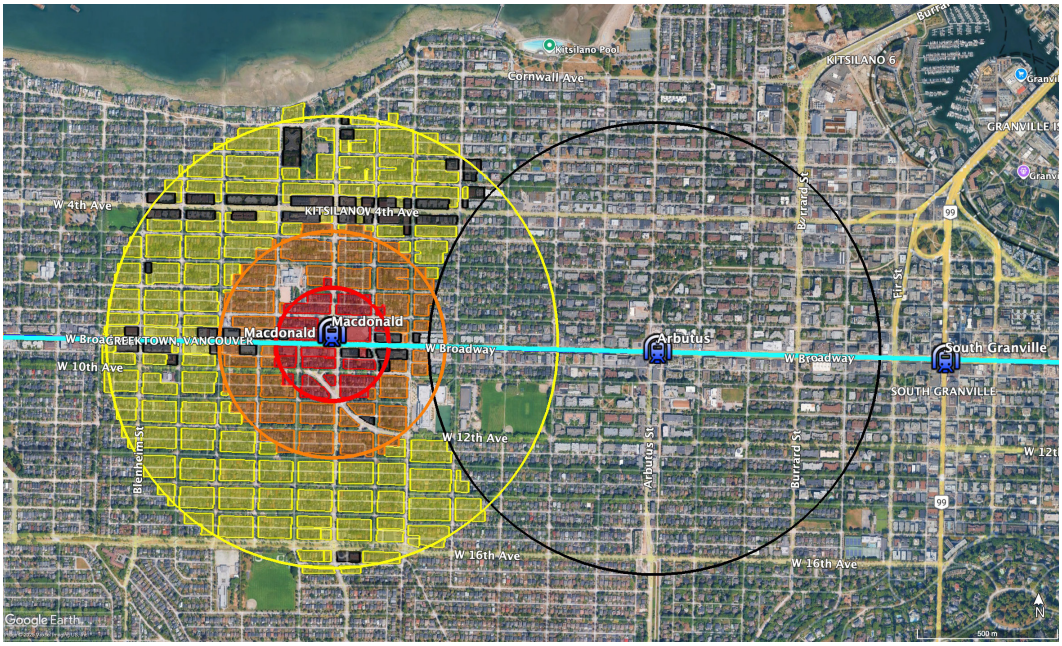
Figure 2: UBC Extension through Kitsilano and Point Grey

Policy Assumptions

To estimate the value of these land value capture mechanisms, a scenario similar (though not identical) to the BC Government's existing TOA policy was created. The policy assumptions area as follows:

- The Macdonald TOA has the same density thresholds as specified in the BC Government's TOA policy:
  - 5.0 FSR within 200 m
  - 4.0 FSR within 400 m
  - 3.0 FSR within 800 m
- Both residential and commercial properties will be redeveloped and be subject to land value capture mechanisms. TOA density thresholds apply to properties with commercial uses as it is assumed that these could be redeveloped into mixed-use developments.
- Low-scale commercial would be permitted for all redeveloped properties. Research has shown that rezoning for mixed use increases property value. It is also a good transportation policy as reducing the distance between businesses and people makes walking more viable.
- Medium-density properties were not included as it was assumed that these would be more difficult to redevelop. These properties have higher development costs as well as less revenue potential due to their higher existing density. Not including them means the estimated values can be considered somewhat conservative.
- The charging of TEC means a project no longer has to go through the rezoning process. Removing rezoning from the development process reduces risk and costs for developers, meaning they will be more able to pay in the form of TECs.

Figure 3: Macdonald TOA



Methodology

TRANSIT EXPANSION CHARGES

There are three components that contribute to the value of TECs: density lift, transit access lift and rezoning savings. As mentioned earlier, density lift and transit access lift have a multiplicative effect. For the sake of simplicity, the density lift figures estimated here include the combined effect with transit access lift, with transit access lift being the increase in land value solely coming from improved access to transit. As seen in the diagram below, the density lift and the transit access lift need to be added together in order to get the full TEC value.

Density Lift

For each developable property, density lift was estimated by multiplying the increase in permitted density with the land value of the property. A reduction factor of one-third was applied to the product to get a current estimate of the density lift.

Density Lift = 1/3*(New Density -Existing Density)*Land Value

This factor is based on the cost charges applied as part of the City of Vancouver's Development Contribution Expectations (DCE) policy where charges were around one third the land value of area properties. Reasons why this reduction exists are likely a result of existing land values being inflated by speculation as well as anticipated land assembly costs.

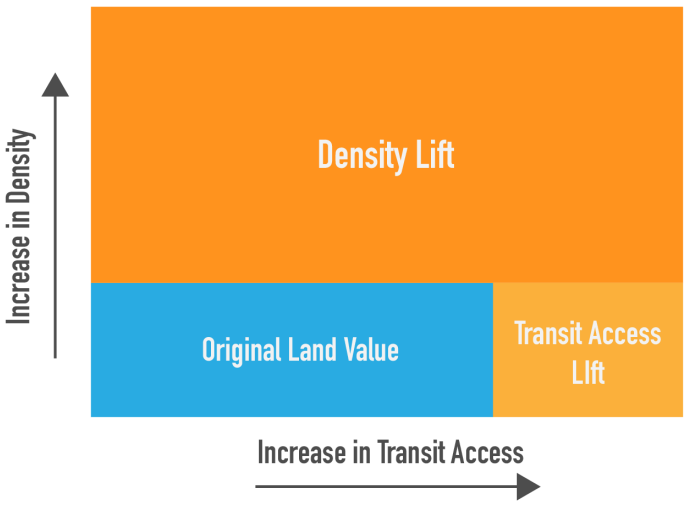
Transit Access Lift

Transit access lift was assumed to be a 15% increase in land values for properties within 400 m of the future station and a 5% increase for properties 400-800 m from the station. These figures are based on research by LUTI Consulting Group.

Table 1: Transit Access Lift Assumptions Rezoning Savings

Proximity to Station	Land Value Lift
0 - 400 m	15%
400 - 800 m	5%

Figure 4: Density Lift and Transit Access Lift Components



The rezoning process can be costly for developers, especially for higher density developments. By not having to go through the rezoning process, developers will save on financing, professional fees and processing fees. It is estimated that these savings on average will be at least $16 per sq.ft.

TAX-INCREMENT FINANCING

To estimate the potential revenues from Tax-Increment Financing, a 35-year timeframe is modeled encompassing both the pre-transit-operation and post-transit-operation phases. The first five years represent the period between the public announcement of the transit project and the opening of service. During this time, TIF revenues are collected, as land values will increase and developments will initiate in anticipation of the new rapid transit station. This is followed by a 30-year period during which incremental property tax revenues are collected and allocated toward project repayment.

An initial uplift in land values is anticipated and was estimated using the same assumptions used when estimating transit access lift as part of the TEC calculations.

In addition to the initial uplift, ongoing value growth is modeled as new development occurs over time. A two-year lag is assumed following the opening of the transit line before the first new developments are completed and begin generating new tax revenues. Development is assumed to occur gradually and proportionately across the TOA and its density tiers.

The increase in assessed value from new development has two components: land value and building value. Land value increases are driven by improved transit access and the ability to build at higher densities, both of which raise the underlying value of the land. Building value is calculated based on estimated construction costs and an assumed developer profit margin of 15%. The analysis accounts for a range of building types that correspond to the density levels permitted within each TOA tier. Parking ratios are adjusted according to observed demand for parking in existing developments near high-frequency transit in Metro Vancouver.

The pace of development was based on population growth rates observed in TOD areas such as Metrotown and Brentwood. With developments not required to go through the rezoning process, the pace of development is expected to be fairly high. For the Macdonald TOA, a growth rate of 700-1200 new residents per year is anticipated.

The baseline for calculating the tax increment is the current property assessment within the TOA, prior to any announcement or construction of the new transit line. Property tax rates are assumed to grow in line with inflation, which provides a conservative estimate of future revenues. This avoids overstating potential returns by holding real tax rate increases constant.

Finally, the model incorporates housing stock renewal over time. As older housing depreciates, it is gradually replaced or renovated, and this renewal is reflected in the model's assumptions to ensure that depreciation does not artificially deflate the long-term tax base.

FACTORING IN CHANGES IN HOUSING SUPPLY

The estimated revenues from TECs and TIF are sensitive to changes in the overall housing supply landscape. Ongoing policy changes—such as the introduction of new Transit-Oriented Areas (TOAs) and small-scale, multi-unit housing (SSMUH) zoning reforms—will increase the amount of development that is legally permitted throughout Metro Vancouver. This expanded development potential will, in turn, reduce the premium associated with new density uplifts, since the market value of additional buildable floor space declines as it becomes more widely available.

As more land across the region becomes eligible for higher-density development, the scarcity premium attached to density uplifts diminishes. This results in a reduction in land values, particularly the component of land value driven by exclusivity of density. The so-called density lift—the increase in land value attributable to upzoning—is expected to decline more sharply as housing becomes more abundant. Eventually, if supply becomes sufficient to meet demand, the marginal value of additional density could approach zero.

To quantify this effect, existing estimates of Metro Vancouver's current housing shortage are referenced. The shortage is expressed as a range, based on different assumptions about the price elasticity of housing supply.

This range reflects the theoretical land value premium embedded in current housing prices, assuming that in a supply-abundant market, land prices would be significantly lower. The analysis treats Metro Vancouver as a single, integrated housing market and adjusts housing needs based on projected population growth. A target occupancy ratio of 2.1 residents per unit is used to estimate future unit demand.

The baseline for annual net new housing supply in Metro Vancouver is assumed to be 16,500 units per year. The analysis assumes that the UBC SkyTrain Extension will be announced in 2028, and that both the province's TOA policy and new SSMUH zoning reforms begin to influence development patterns starting in 2025.

Crucially, the market is expected to respond in advance of new units being built. Developers and landowners will adjust their pricing expectations based on the anticipated increase in development potential across the entire Macdonald TOA—rather than waiting for supply to materialize incrementally. This anticipatory behavior leads to earlier and more pronounced adjustments in land values and density premiums.

By the time the UBC Extension is announced, it is anticipated that the regional housing shortage will have moderately improved due to increased supply. As a result, land value adjustments within the Macdonald TOA are expected to range from 88% to 94% of what they would have been from today's constrained-supply context. The corresponding density lift is adjusted downward, to reflect only 63% to 78% of its potential maximum. These adjustments ensure that the revenue estimates from TEC and TIF are grounded in a realistic assessment of future housing market conditions.

DATA SOURCES

BC Assessment data was used for estimating current property and land values.

The BC Population Estimation Guide and Metro Vancouver Housing Data Book - 2025 were used for estimating changes in Metro Vancouver's housing shortfall.

AltusGroup's 2025 Canadian Cost Guide was used for estimating housing construction costs.

Results

TRANSIT EXPANSION CHARGES

TEC revenue was estimated at **$4.29 - $5.13 B**. The majority of this revenue would come from density lift, accounting for almost 80% of the total revenue. Transit access lift and Rezoning Savings were not negligible though, together amounting to more than $1 billion.

Table 2: TEC Revenue Results

Estimate	Density Lift	Transit Access Lift	Rezoning Savings	Total
Low	$3.21 B	$547 M	$540 M	$4.29 B
Middle	$3.76 B	$575 M		$4.88 B
High	$4.01 B	$585 M		$5.13 B

If it is accepted that ACC revenue needs to be replaced and is charged at the City of Burnaby's rates (the City of Vancouver currently lacks a city-wide ACC policy), this would reduce the amount of revenue available for funding transit expansion by $301 million. This would leave $3.99 - $4.83 B to fund the extension of the Millennium Line.

TAX-INCREMENT FINANCING

Over a 35-year period, TIF is expected to yield between $132 and $271 million in revenue (Net Present Value). Most of the variation in estimates is a result of differences in pace of development. An initial increase in tax revenue of $1.73 - $1.85 M is expected due to increased land values with development leading to annual increases of $0.73 - $1.30 M.

Table 3: Tax-Increment Financing Revenue Results

Estimate	Initial Tax Revenue	Slow Annual Increase	Fast Annual Increase	Slow TIF NPV	Fast TIF NPV
Low	$1.73 M	$0.73 M	$1.25 M	$163 M	$259 M
Middle	$1.82 M	$0.75 M	$1.28 M	$168 M	$267 M
High	$1.85 M	$0.76 M	$1.30 M	$171 M	$271 M

CONCLUSIONS

TEC revenue is substantial and should be considered as a tool for funding transit expansion. The projected revenue from one station ($4.88 B) of the future UBC extension could fund its entire capital cost Millennium Line extension (high estimate of $4.5 B). This becomes a certainty if cost control measures are implemented.

Although TOA revenues for other UBC Extension stations will almost certainly be lower (due to lower land values and excluded properties), it is clear that land value capture funding mechanisms would yield **significant surplus revenues**. However, most of this revenue comes from density lift, a component that will shrink to zero as housing supply becomes abundant. Careful consideration is needed for determining how these surplus funds should be allocated. (The Policy Considerations section goes into this in greater detail.)

It should be noted, though, that even with reduced land values and no density lift revenue, the Macdonald TOA would still generate $632 M in available transit funding. If construction costs for future rail projects are brought under control (capital costs under $300 M/km), it is possible that TECs will pay for most of the (if not the entire) capital cost of future rapid transit projects. **This means land value capture mechanisms will still be a relevant tool even when revenues are reduced due to housing abundance.**

TIF revenues are relatively small compared to TEC revenue but can be a meaningful contributor when housing supply becomes abundant. In such a context, TIF revenues could increase total land value capture revenues by up to 43%.

The results of this study, though compelling, exist in a field of study where the strength of certain effects is still debated and there is room for additional research. The exact monetary figures reported here should not be considered gospel, however, their magnitude should be considered accurate. Therefore, it is imperative that the land value capture mechanisms proposed be given due consideration.

POLICY CONSIDERATIONS

Setting the Rate for Transit Expansion Charges

The rate that developers pay for TECs must be carefully set. Too high and development fails to proceed; too low and a limited opportunity for raising revenue for transit expansion is missed.

The estimate produced here for TECs, though based on thorough research, is by nature, based on a simplified model that factors in land value, development costs and housing supply, but doesn't take into account other factors that may hinder development such as inadequate utility infrastructure, servicing standards and other policies that don't align with TOD. Ideally, municipalities would be incentivized to address these issues so that TEC revenue is maximized. If not, TEC estimates should be reduced accordingly. Similarly, if TEC funds are used to improve public spaces and improve the active transportation network (actions that would increase land values), raising the estimate should be considered.

Incentivizing Municipalities to Adopt

Current housing policies have shown that despite having limited power, municipalities can add roadblocks and find 'loopholes' for policies they are not incentivized to implement, ultimately hindering the effectiveness of those policies.

Fortunately, with surplus revenue anticipated from land value capture mechanisms, there is a straightforward solution to this problem: provide municipalities with a portion of revenues. To be effective, this amount would have to be higher than existing amenity cost charges (ACCs). To incentivize cooperation in approving and permitting the transit project, part of the land value capture revenue should be allocated after transit project expenses are subtracted.

For TIF, revenues could be adjusted to not include 100% of the expected uplift in property values.

A theoretical implementation framework could look like this:

The BC Government sets a funding target for a TOA.This target would be greater than the sum of the transit project's capital cost the TOA is expected to cover and the expected ACC revenue.

TEC revenue up to the funding target would be distributed proportionally between the project and the municipality.

Municipalities would receive a percentage of revenues exceeding the funding target

If, for example, TECs fund 50% of the UBC Extension and the ACC replacement value being $301 M, the funding target would be $2.55 B. If excess funds are distributed evenly between a provincial transit fund, TransLink, a First Nations economic development fund and the City of Vancouver, the City of Vancouver could expect to earn at least $360 M in excess of expected ACC revenue.

Transit Expansion Financing Process

One of the challenges in funding a transit expansion project through land value capture mechanisms is that the funds are needed immediately to build the project, and development is a long-term process. In addition, if developers expect multiple transit projects to be initiated in a short period of time, they may delay development and the payment of TECs in the expectation that prices will decrease. None of this is good for financing the transit project nor for alleviating the housing crisis.

Incentives for purchasing rights before project construction should be considered in order to maximize revenue and reduce borrowing costs. These incentives could include:

- Offering bonus density to developers who pay TECs before the funding target has been reached. This would encourage developers to purchase the rights and help the project acquire the necessary amount of capital.
- Setting a deadline for the payment of TECs after which the ability to skip the rezoning process expires. The commencement of construction or commissioning of the station could be possible deadlines.
- Making the record of payment of TECs transferable with the property. This reduces the risk for the developer when paying the TECs.
- Locking-in TEC rates for a certain number of years. This would further reduce the desirability of delaying the payment of TECs.

There may be additional benefits to offering bonus density in addition to accelerating the payment of TECs. If the bonus density is made tradeable within the TOA, this would provide a mechanism for gauging the value of density and assist in setting/adjusting the rate of TECs. It would also permit some flexibility for density within the TOA as some developments may require higher density to be economically feasible.

Preventing Project Cost Escalation

TEC revenue is initially expected to be substantial but this will rapidly decrease as the transit network is rapidly expanded and more TOAs are established. The solution here is not to delay transit expansion, but to reduce the cost of expanding rapid transit. In western countries such as Italy, Spain and France, transit projects are built at a far lower cost than in Canada, with much of discrepancy due to factors within government control. (Transit Fast Forward: Part 2 will go into detail about how transit project costs can be kept under control.)

The allocation of surplus revenues should be structured in a way that incentivizes political cooperation amongst municipal governments and First Nations as delays can rapidly escalate costs. A way to do this would be to have programs that benefit each of these parties be allocated a portion of surplus land value capture revenues. They would thus have an incentive to cooperate and ensure it is built smoothly.

Allocating Surplus Land Value Capture Revenues

There are several ways that excess land value capture revenues could be allocated to improve society and incentivize stakeholder cooperation:

Transit Capital Fund: Excess revenues are saved in a fund that can be used for future projects. This helps to alleviate the problem of decreasing TEC revenue for later projects.

TransLink's Real Estate Development Fund: Excess revenues could be used to help fund and accelerate TransLink's real estate development efforts. This would improve the long-term sustainability of TransLink.

First Nations Economic Development Funds: Excess revenues could be used to support First Nations economic development.

Municipal Development Fund: A portion of excess revenues would go to the municipality to pay for civic improvements.

Determining Project Viability with Land Value Capture

In most places, it is not expected for transit projects to fully cover their capital and operating costs and be 'profitable'. Transit provides numerous external benefits to society, which are often far larger than what is captured in the form of fare revenue.

However, transit improvements should actually improve the quality of their transit network. This could be through generating positive operations cash flow or providing a superior operating margin versus the service it replaced.

The introduction of land value mechanisms provides an opportunity to change the way the viability of transit projects is evaluated. Any project that is deemed viable should be considered eligible to have a portion of its capital cost offset by land value capture revenue. However, the degree of viability should be considered when prioritizing these projects.

Following is a framework for gauging the viability of transit projects, with levels of viability listed in descending order:

- **Fare Revenue Viable:** These are projects that would generate positive cash flow (fare revenue minus debt servicing and operating costs) through fare revenue alone. It is unlikely that any future transit projects would fall under this category.
- **LVC Viable:** These are projects that would generate positive cash flow after revenue from TEC has offset a portion of the capital cost. This category can be divided into subcategories:
  - **LVC Internally Viable:** These projects would generate positive cash flow solely from land value capture revenue collected around the project's stations
  - **LVC Externally Viable:** These projects would generate positive cash flow with the addition of surplus land value capture revenue from previous projects. These projects can therefore only be considered after land value capture revenue has accrued.
- **Network Viable:** These are projects that would not generate positive cash flow even after the capital cost has been offset with land value capture revenue. However, they may still be considered viable as the projected negative cash flow would still be an improvement over existing operations.
- **Not Viable:** These projects would not result in an improved financial situation even with the inclusion of land value capture revenue. These projects should not be approved.

HOW IMPLEMENTATION COULD WORK

1 TRANSIT BUILDER PROPOSES A PROJECT.

The Transit Builder could be the provincial government, a transit agency or Third party (e.g. First Nations venture).

2 THE PROJECT'S VIABILITY IS ASSESSED.

This step determines whether the project with capital costs offset by land value capture revenue will improve the performance of the transit network.

3 IF DEEMED VIABLE: LVC ESTABLISHED.

This specifies the future permitted densities and the property types that can be rezoned to higher densities. Both of these parameters affect the level of collected land value capture revenue. For simplicity, these parameters could be structured according to the existing Transit-oriented Areas policy. These parameters would be enshrined in a Transit Supportive Agreement that would be signed by the municipality, the transit builder and the BC government.

4 CONSTRUCTION COMMENCES.

The BC Government begins charging TECs, TIF collection begins. In exchange for paying TECs, developers would not need to go through the municipal rezoning process for developments within the density threshold. If the project is being built by a Third Party, land value capture revenue would be collected by the provincial government and placed in an escrow account.

5 PROJECT REACHES COMPLETION.

Land value capture revenue is split between the project and other beneficiaries. The municipal government portion would replace expected development cost charges/ amenity cost charges (a portion may also be allocated to TransLink for projects in Metro Vancouver). Excess revenues could go to a variety of initiatives.

pitching ***possible*** • mtnvalley.ca