

The City of Calgary

Assessment Smoothing Scoping Report

Assessment and Tax
Corporate Planning and Financial Services
2022 September 29



Table of Contents

- 1. Executive Summary.....3**
- 2. Introduction and Background.....4**
 - 2.1 Annual Property Assessment 4
 - 2.2 Current Situation and Purpose 5
 - 2.3 What is Smoothing? 8
 - 2.4 Across-the-board Smoothing 8
 - 2.5 Targeted Smoothing..... 8
- 3. Jurisdictional Scan.....9**
 - 3.1 Vancouver 9
 - 3.2 Ontario 11
 - 3.3 Halifax 12
 - 3.4 Lessons for Calgary..... 14
- 4. Policy options 16**
 - 4.1 Current System 16
 - 4.2 Impacts of a three-year across-the-board averaging program..... 18
 - 4.3 Impacts of a three-year targeted averaging program 19
 - 4.4 Impacts of an across-the-board rolling averaging program 23
 - 4.5 Impacts of a targeted rolling averaging program 25
- 5. Analysis.....26**
- Appendix 1: Financial Task Force Recommendation #3534**
- Appendix 2: History of Tax Capping in Vancouver36**



Appendix 3: Comparison By Location of Assessment Smoothing on Non-residential properties37

Appendix 4: Impacts of across-the-board and targeted five-year Smoothing 39

Bibliography.....42

1. EXECUTIVE SUMMARY

Assessment smoothing is a method used in some jurisdictions to reduce volatility in tax responsibility for those experiencing significant year over year changes in their assessed property value. Smoothing, or averaging, aims to curb sharp shifts from one year to the next in tax responsibility as a result of dramatic changes in assessed property values. It does this by phasing in changes in overall assessment values in multi-year assessment cycles, phasing in the difference in assessment values year over year, or utilizing the arithmetic mean of assessments over a pre-determined period to slow the sharp changes in tax responsibility some taxpayers may experience due to sudden changes in assessed property values.

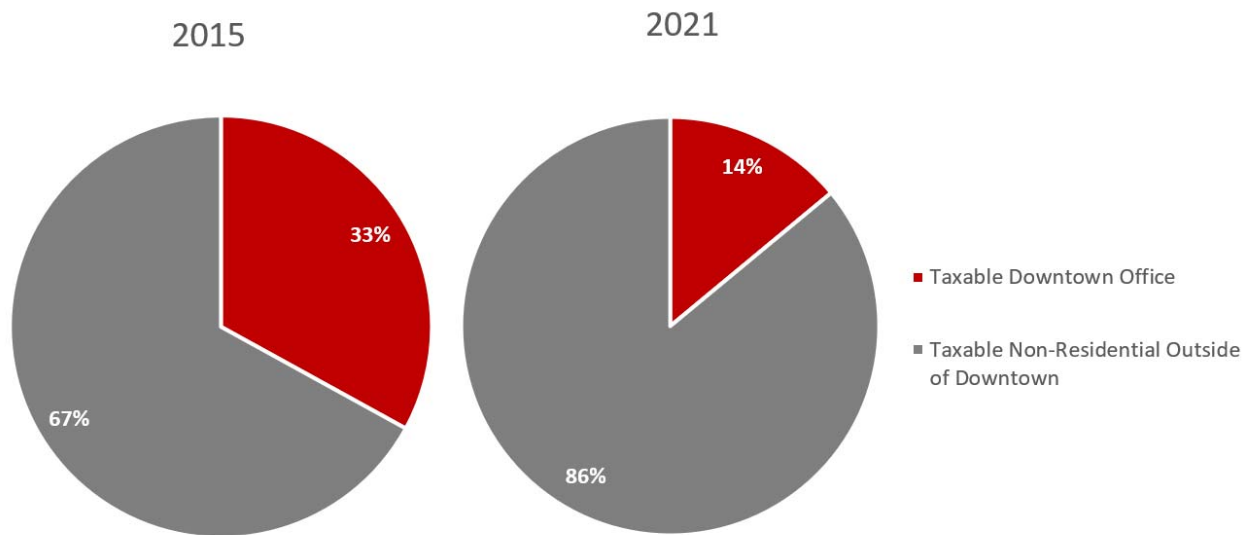
In this scoping report, we explore the potential impacts of some assessment smoothing techniques used across Canada to inform whether Calgary should pursue the legislative authority to implement such methods. Current legislation in Alberta does not allow for assessment smoothing, therefore, legislative amendments would be needed to implement any of the assessment smoothing strategies considered in this report. This report has been undertaken as suggested by the Financial Task Force (FTF)'s final report to Council, which recommends that The City of Calgary investigate multi-year assessment smoothing as a potential long-term tax policy response to the downtown tax shift.

Both assessment class-wide and targeted programs could potentially address the volatility challenges that result from significant year over year changes to assessed property values. While each option explored in this attachment could employ a two-year, three-year, four-year, or five-year averaging strategy, it finds a three-year option would be the best fit for Calgary as it provides the best balance between decreasing volatility while remaining relatively closer to current market values. However, there are significant challenges and limitations to this approach. In addition to concerns about fairness, tax neutrality, stability, simplicity, transparency and ease of administration, smoothing could have the unintended consequence of exacerbating the issue that it is trying to address by creating inequities among taxpayers.

2. INTRODUCTION AND BACKGROUND

Since 2015, significant decreases in downtown office values have shifted property tax responsibilities to other non-residential properties outside of Calgary’s downtown. This report explores how assessment smoothing could have moderated the impacts on properties that experienced disproportionate increases in tax responsibility caused by this shift from 2017-2021. Current legislation in Alberta does not allow for assessment smoothing therefore, legislative amendments would be required to implement any of the assessment smoothing strategies considered in this report.

Figure 1 - Share of Non-Residential Assessed Values 2015 vs. 2021



This scoping report considers the impact that two-year, three-year, four-year, and five-year averaging could have had on non-residential properties within Calgary. It investigates two methods for smoothing. The first method uses the arithmetic mean¹ and the second method is a rolling average method that applies shifts in assessed values over time to the base assessed value of a property. Both targeted and across-the-board options are explored.

2.1 ANNUAL PROPERTY ASSESSMENT

There are differences in the frequency in which municipalities across Canada conduct property assessments which are then used to determine tax responsibilities. These are due to differences in legislation, preferences of policy makers, and structures of institutions that are responsible for

¹ Mean or Average is calculated by adding relevant values together and dividing the total by the number of values.



conducting property assessments. These differences reflect different preferences for balancing two competing objectives: certainty (less frequent assessments) and equity (more frequent assessments). The provinces of Ontario and Saskatchewan, for example, undertake property assessments every four years, which provides high degree of predictability for taxpayers during the four-year assessment cycle. However, this does not eliminate the risk for substantial tax adjustments between assessment cycles.

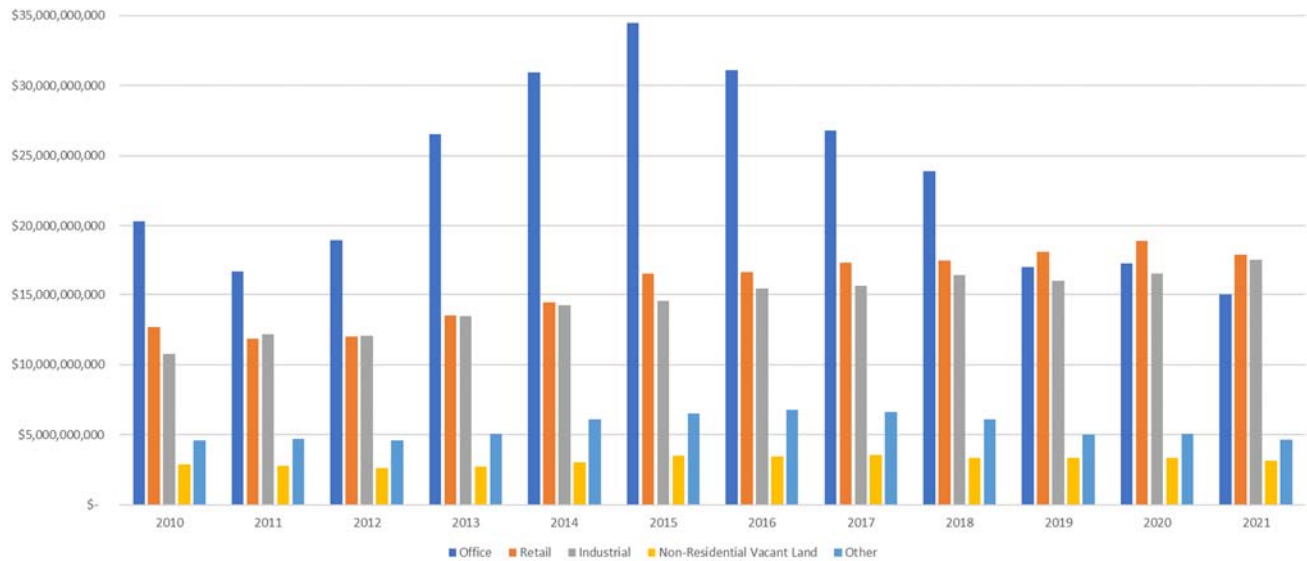
In contrast, all Alberta municipalities including The City of Calgary, annually prepares assessments for properties within their jurisdiction for taxation purposes. Section 285 of the *Municipal Government Act* (MGA) requires Alberta municipalities to prepare annual assessments for all properties within their jurisdiction. To meet this requirement, The City conducts assessments each year that reflect the market value for property as of July 1 of the previous year in accordance with provincial legislation. Annual assessments allow The City to monitor, analyze, and anticipate changes in Calgary's economy and real estate markets and ensures property taxes are equitably levied based on current economic conditions. The Financial Task Force (FTF) Report highlighted the processes in place for annual assessments as a strength of our current system and recommended maintaining them. Council adopted this recommendation, #26 in the Report, on July 27, 2020, affirming The City of Calgary's support and preference for Alberta's annual assessment system.

2.2 CURRENT SITUATION AND PURPOSE

Between 2015-2019, assessed values of non-residential properties in Calgary's downtown core, mainly comprised of office properties, saw a dramatic decrease. This trend continued to 2021, illustrated in Figure 2, however the pace of the decrease slowed significantly since 2019. According to Avison Young's Q1 2022 report on Calgary's office market, the vacancy rate in downtown Calgary now sits at 28.9 per cent with an estimated 13 million square feet of vacant office spaces.²

² Avison Young. 2022. Q1 2022 AY Calgary Office Market Report. April 21. Accessed May 2022.
<https://www.avisonyoung.ca/web/calgary/market-report/-/avr/view/calgary-office-market-report-q1-2022>

Figure 2 – Non-Residential Assessed Value by Property Type 2010-2021³

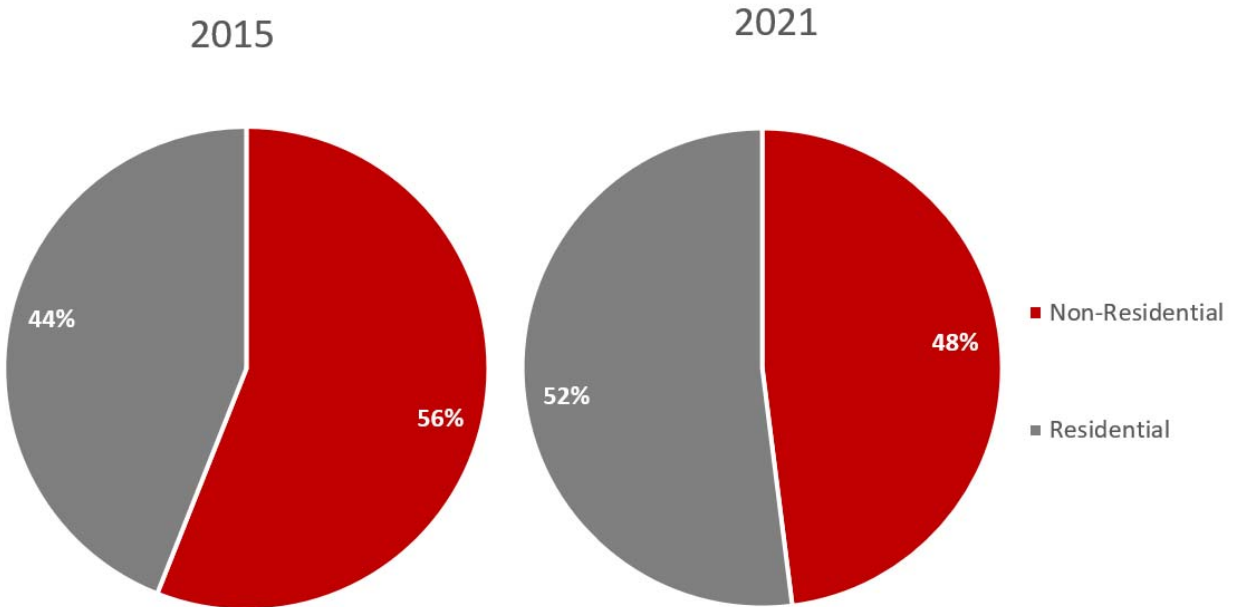


As the income potential of these properties fell, their associated market value fell leading to a reduction in assessed values, which in turn led to a reduction tax responsibility. As a result, all other non-residential properties outside of Calgary’s downtown comprised a higher share of total non-residential assessed values. The resulting tax responsibility was shifted to other properties such as retail and industrial properties within the non-residential class as these property types performed relatively well.

In 2019, the overall tax share that is held by the non-residential properties was reduced to address part of the shift and for 2021, non-residential properties were responsible for 48% of the overall property tax responsibility, down from roughly 56% in 2015 (includes business tax). Tax Share refers to the portion of overall municipal taxes that are collected from a property class, while a tax shift refers to a relative change in tax responsibilities held by a group of properties.

³ Data gathered from the City of Calgary’s Annual Property Assessment Market Reports from 2010-2021

Figure 3 - Total Tax Share 2015 vs. 2021



This report and its findings stem from Recommendation #35 of the FTF report which recommends that The City: Investigate a multi-year assessment smoothing for tax policy update emphasizing evidence from the 2015 to 2019 downtown tax shift for a long-term policy response. The full text of the recommendation can be found in Appendix 1 of this attachment.

Annual assessments based on market values are seen as the ideal approach for tax systems, the International Association of Assessing Officers (IAAO) highlights this as one of the four core principles of property tax policy.⁴ Given that the City of Calgary has already adopted the FTF Report’s recommendation to maintain annual assessments to anticipate an evolving economy and given that tax volatility has adversely impacted non-residential properties, this report assumes that annual assessments will be maintained and focuses on the non-residential assessment class. In addition, because the granular data required for this analysis is not available dating back to 2015, this report focuses on the 2017-2021 time frame. While overall assessment information is available dating back to 2000, breakdowns by property type and at the property level is only retained for the past 5 years. The

⁴ International Association of Assessing Officers. 2020. Standard on Property Tax Policy. Missouri: International Association of Assessing Officers. Accessed February 2022. https://www.iaao.org/media/standards/Standard_on_Property_Tax_Policy.pdf

mentioned tax shift continued between 2019-2021, so the selected time frame remains suitable for conducting the required analysis.

2.3 WHAT IS SMOOTHING?

Smoothing, or averaging, refers to the practice of calculating tax responsibility using assessments across multiple years to reduce year over year tax volatility. Smoothing addresses relative changes in property values within a given class and addresses year over year volatility concerns by maintaining a commitment to market valuations but slowing the pace at which changes in assessed values impact the tax responsibility of a given property within the assessment class. It uses the average of a property's assessed values, which refers to the market value of a given property, over multiple years, or a portion of the increase/decrease in assessed value over a predetermined period to establish a taxable value, which refers to the value that is used to determine a property's tax responsibility. Within Calgary's current tax system, assessed and taxable values are the same. Under smoothing, assessed values are adjusted based on the mechanism used to adjust this market value to create a taxable value. For example, under a two-year smoothing system, a property that sees an increase in assessed value in a given year will have its tax responsibility moderated by its lower assessed value from the previous year.

2.4 ACROSS-THE-BOARD SMOOTHING

When applied across-the-board, smoothing applies to all accounts in a property assessment class (e.g., residential or non-residential properties). Smoothing can slow the rate of shifts in tax responsibility associated with both increases and decreases between property types. Those who experience decreases in their property values tend to be less supportive of an averaging program than those who experience increases, since they do not see immediate decreases in tax responsibility.

2.5 TARGETED SMOOTHING

While across-the-board smoothing applies to an entire assessment class, targeted programs apply to eligible accounts based on predetermined criteria. These programs are generally considered a better tool for addressing volatility. They provide similar predictability and relief as across-the-board smoothing but are reserved for accounts that are more dramatically impacted by year over year changes, minimizing year over year increases in tax responsibilities for the taxpayers who need it most, addressing the main goal of the Financial Task Force's recommendation.



As smoothing exists in other cities globally, we believe Tax and Assessment Systems are able to accommodate assessment smoothing. Calgary's software system would likely require updates in order to support smoothing should Council choose to implement it as is currently lacking this capability. Administrative costs associated with implementing a targeted smoothing mechanism, would be directly dependent on the capacities of this system. If the system is able to support a targeted approach, increases in costs associated with administering the program would be minimized. A targeted mechanism could lead to increased administrative costs as administration would need to identify accounts and/or properties that are eligible for smoothing. While this does involve lower total accounts, administration would need to manage eligibility unless it can be built in through updates to the Tax and Assessment software system. However, targeted programs lower the risk of lost or deferred revenues associated with some smoothing methods.

3. JURISDICTIONAL SCAN

There are some jurisdictions across Canada that have implemented or will implement smoothing in both across-the-board and targeted capacities. The longest running example of assessment smoothing can be found in Vancouver, while Halifax is expected to begin implementation of a rolling average system this year to address volatility in their local markets. Ontario, which is on a multi-year assessment cycle also implements smoothing that aims to increase predictability for taxpayers across the province.

3.1 VANCOUVER

The City of Vancouver employs a Land Assessment Averaging program. Assessments are prepared annually by BC Assessment, a provincial assessment authority and are used by each municipality. Under the British Columbia *Assessment Act*, assessments are split among a total of nine property classes, which includes:

- Residential
- Light industry (property used or held for extracting, processing, manufacturing, or transporting products), and
- Business & Other (property used for offices, retail, warehousing, hotels, motels, and any other property that does not fit into the eight other categories)

Vancouver City Council has used land assessment averaging to minimize year over year changes in values for individual properties since 1993, following the introduction of provincial legislation in 1992 that provided municipalities the authority if they choose to exercise it. Prior to using land averaging,



Vancouver used tax-capping in 1989, which remained in place concurrently with the land averaging program until it was phased out in 1998. Despite being a temporary measure, tax capping took nearly 10 years to phase out for residential and businesses property classes, highlighting how difficult it can be to remove tax mitigating measures once they are in place. Full details of the tax capping measures taken can be found in Appendix 2 of this attachment.

Since adopting averaging in 1993, Vancouver City Council maintained a three-year land value averaging program to buffer year over year increases for all residential and business properties. The program was adjusted in 2015, when it shifted to a targeted three-year land averaging program and began to include light industrial properties. This adjustment stemmed from recommendations made in The City of Vancouver Property Tax Policy Review Commission's final report in 2007. The Commission also recommended that the City of Vancouver seek legislative amendments to the Vancouver Charter to allow the City to use up to five years of land values in the averaging formula.⁵ The direction was adopted by Vancouver City Council in 2008 and following provincial legislative amendments in 2013, the Commission was reconvened to update its work.

When reconvened, the Commission offered an updated recommendation based on market changes: shift to a more targeted five-year program that includes residential, business, and light industrial properties.⁶ The targeted approach was recommended by the Commission for two main reasons. First, a blanket approach added an unnecessary level of complexity to the assessment and taxation system which provided little to no value for a majority of taxpayers. Second, a targeted program partially counters horizontal inequities, by reducing the number of taxpayers in similar circumstances holding differing tax responsibilities, that are inherent in any smoothing system. Horizontal equity exists in a tax system when taxpayers in similar circumstances pay a similar amount of tax while vertical equity exists when taxpayers in differing circumstances, pay a different amount of tax. While a targeted approach remains more inequitable relative to maintaining Calgary's current tax system, by targeting specific properties through the averaging program, it reduces horizontal inequities while providing support to those properties who are disproportionately impacted by valuation increases.

⁵ City of Vancouver Property Tax Review Policy Commission. 2007. Final Report. Vancouver: City of Vancouver. Accessed December 2021. <https://vancouver.ca/taxcommission/assets/pdf/2007-commission-report.pdf>

⁶ City of Vancouver Property Tax Review Policy Commission. 2014. 2014 Report. Vancouver: City of Vancouver. Accessed October 2021. <https://vancouver.ca/taxcommission/assets/pdf/report-property-tax-policy-reivew-2014-colour.pdf>



Vancouver City Council has since implemented the targeted program in two phases. It started with a targeted three-year land assessment averaging program in 2015 and has since shifted to a targeted five-year land assessment averaging program as of 2019 that applies to those seeing increases above the class average only.⁷ Since adopting a targeted program, the threshold for eligibility has been set to 10 per cent over the average change in each respective class. Meaning if a class-wide average increase is 5 per cent, only those with increases of 15 per cent or more will be eligible. Vancouver City Council may adjust this eligibility criteria each year when the annual Land Assessment Averaging Bylaw is passed but thus far has chosen to keep the eligibility criteria consistent. Furthermore, new constructions and properties with no assessed improvement values (land only assessments) for the current year are excluded from the program.

3.2 ONTARIO

Similar to British Columbia, property assessments across Ontario are also undertaken by a provincial agency. The Municipal Property Assessment Corporation (MPAC) in Ontario responsible for assessing and classifying all properties across Ontario, which operates on a four-year assessment cycle. Each assessment cycle is outlined in legislation with a valuation date of January 1 of the year that precedes the beginning of the assessment cycle. For example, for the 2017 to 2020 taxation years, the valuation date for property assessments was January 1, 2016.

Unlike Vancouver and British Columbia however, Ontario addresses volatility and encourages tax predictability through a phase in program at the provincial level. Ontario's phase-in utilizes the same principles as averaging by gradually introducing increases in assessed values across the four-year assessment cycle.⁸ Meaning, if a property is valued at \$250,000 on January 1, 2016 and this reflects an increase of \$50,000 from the previous assessment cycle, the \$50,000 increase is then distributed evenly across the four-year assessment cycle.

- $\$250,000 - \$200,000 = \$50,000$
- $\$50,000 \div 4 \text{ Years} = \$12,500 \text{ per year}$

⁷ City of Vancouver. No Date. Land Assessment Averaging. Accessed October 2021. <https://vancouver.ca/home-property-development/land-assessment-averaging.aspx>

⁸ Municipal Property Assessment Corporation. 2022. How Phase In Works. Accessed January 2022. <https://www.mpac.ca/en/UnderstandingYourAssessment/FourYearAssessmentCycle/HowPhaseworks>

The \$12,500 increase in this example is then added to the taxable assessed value of the property each year. This taxable value is combined with the municipally determined tax rates to determine the tax responsibilities for property owners across the province.

Table 1 - Phase In Program Calculations

Property value January 1, 2012: \$200,000		
Property value January 1, 2016: \$250,000		
Tax Year	Calculation	Assessed Value
2017	\$200,000 + \$12,500	\$212,500
2018	\$212,500 + \$12,500	\$225,000
2019	\$225,000 + \$12,500	\$237,500
2020	\$237,500 + \$12,500	\$250,000

In Ontario, only properties that see an increase between assessment cycles are subject to phase in. If the assessed value for a property decreases or remains the same, the same value is carried across all four years of the assessment cycle. Phase ins are also applied to all property tax classes that are outlined in provincial legislation,⁹ and are only applied to properties that did not make any changes to physical characteristics of the property. Ontario also uses Municipal Discount Factors and Provincial Discount Factors to create “new historical” values that allow phase-ins for:

- Vacant land is improved by a new building or structure.
- Land becomes, or ceases to be, exempt from taxation.
- The land is subdivided.
- New units are created by a condominium plan.
- The land is reclassified (e.g. from the residential to commercial class).

3.3 HALIFAX

An upcoming program in Halifax provides an interesting case study for how a phase in approach like in Ontario can work with an annual assessment cycle. Like British Columbia and Alberta, annual property assessments are required by legislation in Nova Scotia. Property assessments in the province are performed by the Property Valuation Services Corporation of Nova Scotia and this agency is responsible for valuations and classifications of all properties within the province. The Corporation operates under similar requirements as Alberta municipalities and are bound by legislation to a limited number of

⁹ Ontario legislation also allows municipalities to offer a tax capping and clawback program for eligible properties. This focuses on limiting tax increases and offers a legislative pathway for municipalities to recover deferred taxes. However, as the FTF recommendation focuses on multi-year assessment averaging and not taxation caps, as such it is outside the scope of this report.



classes to the defined classes set out below. Three property classes are specified under provincial legislation:¹⁰

- Residential
- Resource - includes farm property (land and building used for agricultural purposes), forest property totaling less than fifty thousand acres, land of a municipal water utility (excluding the structure), community fishermen's service buildings occupied and used by boat owners who are licensed commercial fishermen and the land used in connection with that use.
- Commercial – includes all properties that cannot be classified as the above

The City of Halifax has recently developed the Commercial Assessment Averaging Program that is expected to be in place for the 2023-24 tax year once legislative amendments are in effect. The program itself employs some of the same tools as Vancouver and Ontario. Like Vancouver, it is targeted and for a property to be eligible for the program it must hold a Commercial classification, be situated within the Commercial Development District, and see an increase in assessed value that is more than 5 per cent above the commercial class average. Some provincial legislation with the support of further amendments, laid the groundwork for the system that Halifax is planning to implement. In 2021, the class average increase was 2.6 per cent, therefore properties that experienced a valuation increase of 7.6 per cent or more would qualify for the rolling three-year program if it were in place today. Properties with decreases will have the lower value applied to calculate their tax responsibility immediately.¹¹

Halifax is aiming to increase predictability for eligible properties by implementing a rolling three-year averaging approach. This means that an increase in a property's assessed value from the current year, will be averaged and applied to each of the next three years to determine the taxable assessed value of the property (see Table 2 for example). Should the property experience another increase next year that is 5 per cent more than the class average, the increase from that year will also be applied in addition to the increase from this year. This creates a system where the same principles as Ontario's phase in program are applied, but for future years rather than past assessments.

¹⁰ Property Valuation Services Corporation. 2022. Property Classifications. Accessed November 2021. <https://www.pvsc.ca/en/home/howassessmentworks/assessmentprocess/propertyclassifications.aspx>

¹¹ City of Halifax. No Date. Commercial Assessment Averaging Program. Accessed October 2021. <https://www.halifax.ca/home-property/property-taxes/commercial-tax-policy/commercial-assessment-averaging-program>

Table 2 - Halifax Rolling Average Program Example

Market Value for 2020	Market Value for 2021	Market Value for 2022	Market Value for 2023
\$1,000,000	\$1,300,000	\$1,300,000	\$1,300,000
Value added from Year 1 (2021)	\$ 100,000	\$100,000	\$100,000
	Taxable Value for 2021	Taxable Value for 2022	Taxable Value for 2023
Averaging	\$1,100,000	\$1,200,000	\$1,300,000

In Table 2, we see a hypothetical property that has experienced a 30 per cent increase in its assessed value between 2020 and 2021, rising from \$1,000,000 to \$1,300,000. Under a rolling average program, this increase would be averaged for the next three years.

- $\$1,300,000 - \$1,000,000 = \$300,000$
- $\$300,000 \div 3 \text{ years} = \$100,000 \text{ increase per year}$

This \$100,000 increase is now applied to each year this property is eligible under the program to determine its taxable assessed value and related tax responsibilities. Should the property see another increase in its 2022 assessed value, the same calculation will be applied with an additional line of increases rolled in.

The City of Halifax is continuing to work with the provincial government to enact legislative changes needed to implement the program. As the provincial legislation stands today, phase ins of assessment increases over three years is within municipal powers, provided that Halifax creates a Commercial Development District and applies the program to those within it. Furthermore, the municipality will have to create an Assessment Averaging Bylaw that outlines the eligibility criteria and calculation details to implement the program. It is expected the Bylaw will outline eligibility criteria further and it has been recommended that new constructions be excluded from the program and it not clear if the program will apply to properties that have made changes to their physical characteristics.

3.4 LESSONS FOR CALGARY

The experience of the three jurisdictions detailed above provide three key insights for Calgary. They highlight the significance of provincial legislation, targeted programs, and annual assessments.

First and foremost, all programs that are discussed are enabled by provincial legislation. As current legislation in Alberta does not provide Calgary with authority to deploy a smoothing program, amendments would need to be applied, and these jurisdictions offer differing options for legislative regimes that Calgary could advocate for if Council chooses to pursue smoothing. Furthermore,

implementing smoothing in Calgary would require capital investments in personnel and systems as The City's current system is not established to support smoothing. To support smoothing, The City would have to gather the revenues for this investment, which would need to be derived through efficiencies in other areas or increases in revenues collected through property taxes.

Vancouver's long history with averaging provides insights for legislative changes that could be pursued to offer an across-the-board or targeted program. While Alberta does not split assessed values between land and improvement assessments like British Columbia, to apply a similar program, amendments would be required for the *Municipal Government Act*. However, unlike Vancouver, land values in Calgary have not typically increased substantially year over year. As such, implementing a land assessment averaging program similar to Vancouver would not have addressed Calgary's downtown tax shift issue. Calgary could, however, apply similar principles as above to our yearly property assessment values with legislative changes.

Vancouver and Halifax's approach required legislative amendments that covered a wide range of Acts and regulations to systemically change the approach taken to use land assessment averaging and rolling averaging respectively. While Vancouver's approach focuses on classes, Halifax offers insights into how Development Districts' legislation could be utilized to target a specific geographical area and the properties within it to create a smoothing program. Both offer insights into legislative amendments that may be pursued to support smoothing.

Both Vancouver and Halifax have also chosen to apply targeted programs for their jurisdictions, suggesting that both municipalities concluded that a targeted program minimizes the complexity of offering an across-the-board smoothing program while maximizing value for taxpayers. It also suggests that both cities believe a targeted program may partially counter the horizontal inequities that are inherent in any smoothing system.

Ontario's four-year assessment cycle blurs the connection between current assessments and tax responsibilities as taxpayers are expected to understand how an assessed value from potentially four (or more) years ago determined at the provincial level is used by municipalities to determine tax responsibilities. Their current situation also highlights the importance of maintaining annual assessments. Ontario has chosen not to perform property reassessments until at least 2023, due to the COVID-19 pandemic, freezing property values at 2020 levels until at least 2024 for assessments



completed in 2016. This has created concerns around the gap between assessment value and current market values, leading to concerns of large shifts for taxpayers as the combined impact of nearly a decade of assessed value adjustments and market adjustments will be captured in the upcoming cycle. By complying with the provincially legislated annual assessment cycle, Calgary significantly reduced blurring for taxpayers, risk associated with multi-year assessment cycle volatility, and remained committed to providing equity.

4. POLICY OPTIONS

4.1 CURRENT SYSTEM

The City's current assessment and tax system, as outlined in provincial legislation, consistently applies principles of an effective framework for taxations systems while remaining one of the simplest across Canada. The City is bound by provincial legislation to prepare annual assessment and tax rolls. This is coupled with Calgary City Council's budget cycles that include annual adjustments to allow assessments and tax responsibilities to be reflective of the current market conditions and values of non-residential properties. Assessed values, however, do not directly drive municipal tax revenues. Assessment is the process of assigning a value to a property as a way to distribute municipal taxes. The values assigned are used to calculate the amount of taxes that is to be paid by a property owner. Council establishes the municipal budget which determines revenues required to offer municipal services. The amount of revenue required is then divided by the total taxable assessment base in order to determine the tax rate required. This tax rate and the assessed value assigned to a property is then used to establish each respective property's contributions to the overall revenue required by The City.

As legislated in the *Matters Relating to Assessment and Taxation Regulation (MRAT)*, current assessments reflect the value of a property as of July 1 of the previous year and are used in tandem with the Council-set tax rates to determine tax responsibilities for a given year. Tax bills are mailed in mid-May and are due at the end of June each year. The above combined have led to a system that:

- is relatively more equitable and simpler compared to other major cities outside of Alberta,
- ensures both horizontal and vertical equity through implementing one rate for all non-residential taxpayers.
 - This ensures that those who are in similar circumstances hold the same tax responsibilities as their peers, while those with different circumstances hold less or more tax responsibility.

- Yearly assessments also allow The City to ensure that assessments and tax rolls reflect the current market conditions as closely as possible,
 - does not discriminate against sub-sectors of non-residential properties by allowing all tax paying properties the same access to municipal services and,
 - encourages collaboration with non-residential taxpayers by maintaining a predictable timeline, easily navigable tax rules and bills, and minimizes administrative costs.

As identified through the downtown tax shift between 2015 and today, the current system is susceptible to sudden changes in assessed values due to rapid changes in market conditions. While smoothing could have supported those who were most acutely affected by the shift, a new smoothing system would come in tandem with increases in operating costs associated with the program and require significant communication strategy for property owners. Increases in operating costs and financial investments increase the overall cost of offering municipal services which may lead to increasing tax responsibilities for all taxpayers in Calgary. Since 2015, the downtown shift appears to have slowed and appears to have been largely redistributed to the remaining non-residential properties. This redistribution, dictated by market conditions, is unlikely to place Calgary in the same situation as before. As it stands today, introducing a smoothing program would likely require The City to incur costs associated with updating Tax and Assessment software and undertaking a communication and education campaign to explain the impacts of smoothing for taxpayers. Furthermore, there may be an increase in dissatisfaction associated with the new system which may lead to an increase in assessment complaints from taxpayers. The above combined could lead higher overall costs for providing services for The City. As these increases will likely need to be funded through property taxes this could lead to increased tax responsibilities for all taxpayers in Calgary.

Should Council choose to pursue smoothing, there are four broad strategies that could be applied to Calgary based on smoothing programs that exist across Canada. While each of these options could employ a two-year, three-year, four-year, or five-year averaging strategy, a three-year option would be the best fit for Calgary as it provides the best balance between decreasing volatility while remaining relatively close to current market values. Two-year averaging programs in Calgary offers around a 2 per cent variation from current assessed values overall and as such would not offer enough deviation from the annual taxation system that is already in place to justify the costs of implement smoothing and would not be an effective use of resources. Four and five-year programs blur the lines between current market values. Furthermore, five per cent of non-residential accounts in Calgary saw three years of consecutive annual assessment increases of more than 10 per cent and only four per cent of non-



residential accounts saw increases for five consecutive years. Given the large overlap between the two groups, a three-year averaging program would address volatility for a majority of these accounts while allowing financial flexibility for The City by balancing relief for taxpayers and minimizing the length of time Council would have to commit to a program.

Limiting the length time for smoothing allows Council and The City an opportunity to change course should new or different concerns arise. However, a five-year averaging program can offer insights into how averaging would impact taxable values based on higher overall assessment values in The City. Further examples of multi-year assessment averaging can be found in Attachment 3 presented alongside this report. As such, this report highlights the impacts of three and five-year assessment averaging programs. The latter can be found in Appendix 4 of this attachment. For the rolling average programs, this report will illustrate the impacts of three-year policies only as the rolling average approach is complex on its own and implementing a rolling average for longer than three years could significantly blur the connections between market values and taxable values.

4.2 IMPACTS OF A THREE-YEAR ACROSS-THE-BOARD AVERAGING PROGRAM

To assess the impacts of an across-the-board averaging program on non-residential properties, this report utilizes a floating tax rate¹² across all multi-year averaging options. As the revenue required to fund municipal services would have remained the same in 2021 and assessed values changed under smoothing, a floating or adjusted tax rate allows us to better represent tax shifts under revenue neutral budgeting. This allows us to understand what shifts in tax responsibilities could have occurred for different non-residential property types¹³ across all multi-year options and their respective assessed property values if Calgary had a smoothing mechanism in place for 2021. The adjusted tax rates were applied to the arithmetic mean of annual property assessments for three and five-year periods to determine tax responsibilities and shifts per property type.

¹² Floating tax rate is calculated by dividing the total funding required for the 2021 budget year and dividing it by the value of the total assessment base for each multi-year averaging option.

¹³ The property types used here, and all other policy options, are: Industrial, Multi Residential, Office, Retail, Single Residential, Special Purpose and Land. Properties listed as Single Residential and Multi-Residential in this analysis includes properties that are used fully or in part for non-residential purposes (i.e. detached homes that function as day care centres) and/or are operated as a commercial entity (i.e. condominiums owned and operated by a for profit entity). While these highlight the property types, they are still assessed as non-residential properties based on their use and may be wholly or partially taxed as non-residential properties. The values in this report reflect non-residential portions only.

Table 3 - Tax Shares and Rates for three-year averaging

Property Type	2021 Tax Shares	3 Year Smoothed Tax Share (2019-21)	Total Change in Share
Industrial	30.08%	28.31%	-1.77%
Multi Residential	0.57%	0.53%	-0.04%
Office	26.81%	28.26%	1.45%
Retail	31.03%	31.18%	0.15%
Single Residential	0.09%	0.09%	0.00%
Special Purpose and Land	11.42%	11.63%	0.21%
Tax Rate Used	0.0165130 (Actual)	0.0161441 (Adjusted)	

Both three and five-year smoothing approaches caused shifts in tax responsibilities for non-residential property types. The shifts for a three-year program are outlined in Table 3 above along comparing actual and floating tax rates. Under a three-year smoothing program, properties in Calgary held collectively held higher assessed values than in 2021. As a result, The City could have applied a lower tax rate to non-residential properties if it wanted to collect the same overall share of property taxes in 2021 from non-residential properties using values defined by pre-2021 market conditions. Table 3 also shows that employing multi-year assessment averaging would have caused a shift among most property types while increasing tax responsibilities of office properties. This is due to smoothing accounting for higher annual assessed values that were attached to the downtown office market prior to or during the shift that began in 2015. The closer the time frame used for smoothing gets to the peak of office assessed values in Calgary, the higher the shift.

While this shift could have addressed part of the increases in tax responsibility for all other non-residential properties resulting from the downtown tax shift, it would also have done so in an inequitable manner while not offering much relief for properties outside of the downtown core. Comparisons of non-residential properties between the Downtown Core, Douglasdale, Deerfoot Business Centre, and Shawnessy can be found in Appendix 2 of this attachment. These comparisons also highlight the impact of two, four and five-year averaging.

4.3 IMPACTS OF A THREE-YEAR TARGETED AVERAGING PROGRAM

Implementing a class-wide assessment averaging program could prove costly and may not provide proportional benefits to all properties. One way to ensure that those who require the most support for year over year tax volatility receive it, would be to implement a targeted program for non-residential



properties. A targeted assessment averaging program would address some concerns around familiarity. As a new program that would impact a subset of taxpayers rather than all, it would allow The City to engage with specific stakeholders to provide education and prepare taxpayers for the upcoming change in assessment methodology and associated tax responsibility. A targeted program would also allow Council flexibility to work with the Assessment and Tax business unit to set eligibility criteria that is responsive to year over year market changes.

To mirror the approach taken by Halifax and Vancouver, Calgary would have used 5 per cent and 10 per cent more than the average class increase as eligibility criteria for a targeted program. However, the typical change in non-residential market value in Calgary was -6 per cent based on the 2021 Assessment Market Report. As such a 5 per cent increase above the average change would not be feasible and would set one of the eligibility criteria at -1 per cent. Due to this, this report uses 10 per cent and 15 per cent above the typical change in the non-residential class change as eligibility criteria for a targeted approach. While these thresholds have no substantive impacts on the structure of a smoothing program, they offer sensitivity analysis and highlights the impacts these thresholds could have had for Calgary’s tax base. The eligibility criteria for any targeted program would have to be directed by Council (or provincial legislation) and the examples below are intended to highlight their impacts for Council’s information.

Table 4 – Low Threshold Eligibility Estimates for Taxable Non-Residential Accounts¹⁴

Eligibility Estimates for Taxable Non-Residential Accounts				
	Taxable Non-Residential Accounts	Accounts with Decreases	Accounts with increases LESS than the 4% (ineligible)	Accounts with increases MORE than the 4% (eligible properties)
Number of Accounts	13,880	6,371	4,896	2,613
Estimated Assessed Value (2021)	56,322,600,080	31,352,423,978	10,546,133,212	14,424,042,891
% of all Accounts	100.0%	45.9%	35.3%	18.8%
% of all Assessed Value	100.0%	55.7%	18.7%	25.6%

Based on the eligibility criteria above this would mean that those properties with more than 4 per cent or 9 per cent increases in their assessed values in 2021 would have been eligible for smoothing while the remaining properties would have operated under the current system. In 2021, this eligibility criteria

¹⁴ Count of accounts excludes new, demolished, and preconstruction properties. It also excludes properties that did not exist for the full 3 years of analysis.



would have accounted for roughly 19 per cent of all accounts based on the lower threshold and 9 per cent of all accounts for the upper threshold.

While introducing a targeted approach would allow the City to focus on those properties that are more adversely impacted by increasing year over year assessment values, it poses its own set of challenges and considerations.

Under the lower eligibility threshold, roughly 19 per cent of all properties and 26 per cent of the total assessed value would have been impacted. As Table 5 below highlights, applying averaging to this subsection of non-residential properties would have reduced their assessed values (taxable value) by 6.5 per cent under a three-year averaging program, representing a \$15.4 million gap in tax responsibility for these properties based on the 2021 Council set tax rate. While this drop in tax responsibility would have provided relief for those experiencing year over year increases, additional measures would have also been required to recover that lost revenue.

Table 5 - Estimated Assessed Values and Taxes for Accounts with more than 4% Increase

Property Type	2021 Assessed Value	2021 Taxes	2021 3 Year Smoothed Assessed Value (2019-21)	2021 3 Year Smoothed Tax Value	Count of Accounts
Industrial	9,038,522,950	149,253,129	8,417,284,111	138,994,613	1,646
Multi Residential	246,304,243	4,067,222	232,797,875	3,844,191	80
Office	1,393,000,342	23,002,615	1,313,036,509	21,682,172	194
Retail	3,090,301,454	51,030,148	2,912,598,305	48,095,736	493
Single Residential	4,967,000	82,020	4,857,500	80,212	3
Special Purpose and Land	650,946,902	10,749,086	608,259,173	10,044,184	197
	14,424,042,891	238,184,220	13,488,833,472	222,741,107	2,613
Difference from Actual 2021 Values			-6.5%	(15,443,113)	

Since a targeted program would reduce the non-residential tax base, the tax rate would have to increase for The City to maintain municipal services. In the scenario above, one option would be to increase the non-residential tax rate by 2.2 per cent for all non-residential properties that were not eligible for the program. While this would have been the simpler solution, this would lead to horizontal inequities as it forces those who were not eligible for the program to directly subsidize those who were. Furthermore, The City of Calgary would likely need to create a subclass to implement this change, which in turn would require further legislative changes. Options available for Council, along with potential subclasses and their impacts are discussed in the Non-Residential Subclasses Scoping Report (EC2022-0780).



Alternatively, The City could have increased the tax rate for all non-residential properties regardless of their eligibility for the program. A tax rate increase of 1.7 per cent for all non-residential properties under the three-year averaging program would still have removed \$11.6 million in tax responsibilities, down from \$15.4 million, but would still allow eligible properties to benefit from smoothing. Unfortunately, this would likely still lead to horizontal inequities by asking those who are not eligible for the program to subsidize those who are but would do so to a lesser extent.

Table 6 - High Threshold Eligibility Estimates for Taxable Non-Residential Accounts

Eligibility Estimates for Taxable Non-Residential Accounts				
	Taxable Non-Residential Accounts	Accounts with Decreases	Accounts with increases LESS than the 9% (ineligible)	Accounts with increases MORE than the 9% (eligible Accounts)
Number of Accounts	13,880	6,371	6,268	1,241
Estimated Assessed Value (2021)	56,322,600,080	31,352,423,978	16,431,046,949	8,539,129,154
% of all Accounts	100.0%	45.9%	45.2%	8.9%
% of all Assessed Value	100.0%	55.7%	29.2%	15.2%

The 15 per cent or more increase over the typical change in non-residential market value or 9 per cent or more in increases in assessed values between 2020 and 2021 criteria, would have allowed The City to support those experiencing the highest level of increases. It would have applied to about 9 per cent of all properties representing 15 per cent of all assessed values and, as table 6 above highlights, would have covered 48 per cent of the properties that would have been eligible under the lower threshold. The benefits to eligible taxpayers would have followed a similar pattern. Under the 9 per cent threshold, eligible properties would have seen a roughly \$11.5 million shift in tax responsibilities under a three-year averaging program.

Table 7 - Estimated Assessed Values and Taxes for Accounts with more than 9% Increase

Property Type	2021 Assessed Value	2021 Taxes	2021 3 Year Smoothed Assessed Value	2021 3 Year Smoothed Tax Value	Count of Accounts
Industrial	5,124,394,450	84,619,126	4,664,863,751	77,030,895	620
Multi Residential	225,671,131	3,726,507	212,798,090	3,513,935	63
Office	968,179,342	15,987,545	901,103,175	14,879,917	136
Retail	1,733,317,134	28,622,266	1,616,008,389	26,685,147	288
Special Purpose and Land	487,567,097	8,051,195	448,428,764	7,404,904	134
	8,539,129,154	141,006,640	7,843,202,168	129,514,797	1,241
Difference from Actual 2021 Values			-8.1%	(11,491,842)	



As with the 4 per cent threshold, adjustments to tax rates would be required for The City to maintain the same level of services. An increase of 1.5 per cent for the non-residential tax rate for those properties that are not eligible for the three-year program would have allowed The City to remain revenue neutral. As mentioned earlier, this would require legislative changes to provincial legislation to implement. An increase of 1.3 per cent to the 2021 non-residential tax rate across-the-board would decrease the inequity inherent in the across-the-board approach and allow The City to maintain service levels. This would have reduced the tax responsibility shifted from eligible properties from \$11.5 million to \$9.9 million under a three-year approach. Impacts of similar five-year programs are highlighted in Appendix 4. In addition to adjusting the tax rate, the shifts in tax responsibility may also be funded through The City's reserves.

While it does create a system that is less equitable, both targeted and across-the-board averaging programs offer support for those who are experiencing year over year changes in assessed values that are greater than others in the same tax class. Decreases may be applied to properties in a similar manner regardless of the eligibility criteria, this would allow the tax system to be as equitable as possible given the circumstances. However, this may be met with resistance from taxpayers and could lead to an increase in assessment complaints.

Jurisdictions that have implemented averaging or phase in programs have generally chosen to apply decreases to property values immediately resulting in tax savings for some properties. Should Council choose to pursue targeted or across-the-board assessment smoothing, and provincial legislation is amended to allow it, Council would need to make value-based decisions that balance the trade-offs between the benefits and risks of implementing this program. Furthermore, it would also have to establish eligibility criteria for properties that are experiencing decreases as well as increases, if smoothing is applied to decreases as well as increases

4.4 IMPACTS OF AN ACROSS-THE-BOARD ROLLING AVERAGING PROGRAM

An alternative to multi-year assessment averaging, which is inherently focused on past assessments, is a rolling average program. A rolling average program would use the current year's assessment to determine tax responsibilities for upcoming years. This would increase predictability in the tax system by allowing taxpayers to anticipate increases (or decreases) for coming years while maintaining a direct connection between current market assessments and tax responsibilities.

While a rolling average can be implemented for two, three, four, or five-year windows, this report focuses on the three-year timeframe. As mentioned earlier, five per cent of non-residential properties in Calgary saw increases that were more than 10 per cent for three consecutive years. The three-year window would also allow The City to balance flexibility in its finances while offering predictability and minimizing tax system complexities for the average taxpayer.

If implemented across-the-board, the rolling average program would operate along the same principles as the phase in program in Ontario. It would calculate changes in assessed property values from year to year, divide it by the number of years the program is to be implemented for (three in this example) and apply the change equally over each of the next three years to determine the taxable value of a given property. If a property sees a year over year changes for two years in a row it would see two separate additions to its assessed value for the second year, the first from the first year’s increase and the second from the second year’s increase. Table 8 below provides an example of a property that experienced a 30 percent increase in its assessed value for the first year (2021) but did not see any further increases for the two following years. As such, the increase of \$300,000 is averaged between 3 years and this increase is applied evenly across three consecutive years to establish the taxable assessed value for the property. In this example, the property would see an increase of \$100,000 per year under the program until the taxable assessed value matches the assessed market value.

Table 8 - Rolling Average Example - Increase in assessed value

Assessed Value for 2020	Assessed Value for 2021	Assessed Value for 2022	Assessed Value for 2023
\$1,000,000	\$1,300,000	\$1,300,000	\$1,300,000
Value added from Year 1 (2021)	\$100,000	\$100,000	\$100,000
	Taxable Assessed Value for 2021	Taxable Assessed Value for 2022	Taxable Assessed Value for 2023
Averaging	\$1,100,000	\$1,200,000	\$1,300,000

Should a property see an eligible increase for more than the first year a rolling average program is in place, the same principle would be applied across all eligible years of increases. If a property sees three consecutive years of 30 per cent increases (shown in Table 9 below) each year’s increase is applied over three years until the taxable value matches the assessed value. In this example, the taxable value increases by \$100,000 for the first year, a further \$230,000 in the second year (\$100,00 increases for the first year and \$130,000 for the second year), \$300,000 in the third year (\$100,00 increases for the first year, \$130,000 for the second year and \$170,000 for the third year).

Table 9 - Rolling Average Example - Consecutive Increases in assessed value

Assessed Value for 2020	Assessed Value for 2021	Assessed Value for 2022	Assessed Value for 2023	Assessed Value for 2024	Assessed Value for 2025
\$1,000,000	\$1,300,000	\$1,690,000	\$2,200,000	\$2,200,000	\$2,200,000
Value added from Year 1 (2021)	\$100,000	\$100,000	\$100,000		
	Value added from Year 2 (2022)	\$130,000	\$130,000	\$130,000	
		Value added from Year 3 (2023)	\$170,000	\$170,000	\$170,000
	Taxable Assessed Value for 2021	Taxable Assessed Value for 2022	Taxable Assessed Value for 2023	Taxable Assessed Value for 2024	Taxable Assessed Value for 2025
Averaging	\$1,100,000	\$1,330,000	\$1,730,000	\$2,030,000	\$2,200,000

4.5 IMPACTS OF A TARGETED ROLLING AVERAGING PROGRAM

Under a targeted rolling average program, properties with increases that are below the threshold would not be eligible and would continue to receive assessments without adjustments. For those who are eligible, increases in assessed value would be phased in over the next three years. If a targeted rolling average program is implemented with same the thresholds as the targeted multi-year assessment averaging (4 per cent and 9 per cent increases or more), this should reduce the risk associated with fluctuations of the nearly 14,000 comparable non-residential accounts.

Table 10 - Summary of Targeted Rolling Average Program for Accounts with more than 4% Increase

Impacts of Targeted Rolling Average Program		
	Tax Rate	Estimated Change in Tax Responsibility for Targeted Group
2021 Actual	0.0165130	-
Adjustments Applied to Non-Eligible Accounts	0.0170480	-9%
Adjustments Applied to all Non-Residential	0.0169208	-7%
Assessed Value Increase to be "rolled in" for 2022-23		678,775,049
Total Tax Responsibility Shifted for Targeted Group (based on 2021 NR Rate)		22,417,225

With the same thresholds as the targeted multi-year assessment averaging program, 10 per cent and 15 per cent over the typical change in the non-residential class between 2020 and 2021, the rolling average program would have applied to 19 per cent of all accounts and 26 per cent of all assessed values in 2021 through the minimum 4 per cent increase threshold. With this threshold, a roughly \$679 million in assessed value increases across eligible non-residential properties would have been "rolled in" to determine taxable values for 2021, with the same value applied for each of the next two years. This would have created a \$22 million shift in tax responsibilities away from eligible properties. In order to

remain revenue neutral, a 3.2 per cent increase from the 2021 tax rate applied to all properties that are not part of the assessment averaging program would have allowed The City to maintain its service levels. As this would have caused horizontal inequities, by asking ineligible properties to directly subsidize eligible properties, and would require expanded subclasses legislation, an estimated increase of 2.5 per cent increase in the tax rate for all non-residential properties (including those eligible for the program) should have allowed The City to maintain services without having to find further efficiencies while reducing overall inequities.

Table 11 - Summary of Targeted Rolling Average Program for Accounts with more than 9% Increase

Impacts of Targeted Rolling Average Program		
	Tax Rate	Estimated Change in Tax Responsibility for Targeted Group
2021 Actual	0.0165130	-
Adjustments Applied to Non-Eligible Accounts	0.0169013	-13%
Adjustments Applied to all Non-Residential	0.0168492	-11%
Assessed Value Increase to be "rolled in" for 2022-23		561,847,584
Total Tax Responsibility Shifted for Targeted Group (based on 2021 NR Rate)		18,555,578

If the threshold for eligibility was set to 9 percent increase (15 per cent more than the typical change in the non-residential class), the program would have applied to 9 per cent of all accounts and roughly 15 per cent of all assessed values. Under this threshold, roughly \$561 million in assessed valued from eligible properties would have been “rolled in” to establish the 2021 taxable value for eligible properties, with an increase of the same value applied to the same properties over the next two years. This would have shifted roughly \$18.6 million in tax responsibilities away from qualifying properties. To remain revenue neutral, The City would have needed to increase the tax rate for all non-eligible properties by 2.4 per cent from the 2021 rate, creating horizontally inequities, or it could have applied a two per cent increase across all non-residential properties to maintain service levels. In addition to the above, the shifts in tax responsibility may also be funded through The City’s reserve fund.

5. ANALYSIS

This report will apply the same principles of taxation that were originally presented in the Tax Distribution Scoping Report (EC2021-1597) prepared by the Financial Task Force Implementation Team



in December 2021¹⁵ to assess the feasibility of the policy options presented in this report. These principles form the basis of evaluating effective property tax systems and embody considerations made by academics, municipalities, and professional associations.^{16 17 18}

The principles for evaluation are:

- **Fairness: Ability to Pay**

Within a property tax system, fairness is based on the ability to pay and is rooted in horizontal and vertical equity. A horizontally equitable system ensures taxpayers in similar circumstances pay a similar amount of tax while vertical equity means taxpayers in differing circumstances, pay a different amount of tax.

- **Fairness: Benefits**

Fairness also relates to the benefits principle, namely that a system that is fair should require taxpayers to pay taxes according to the benefits they receive from services. In a properly functioning system, beneficiaries can be identified, and services are not redistributive in nature.

- **Neutrality**

The neutrality principle dictates that taxes should impact economic and locational decisions as little as possible. This principle recommends that The City should offer competitive taxation and similar levels of service offerings as that which is offered by other municipalities to the extent to which this is possible.

- **Stability & Predictability**

Taxation should provide a stable and predictable revenue source for The City while ensuring individual taxpayers are able to understand the impacts that come from annual property assessment.

¹⁵ Financial Task Force Implementation Team. 2021. Tax Distribution Scoping Report. Calgary: The City of Calgary. <https://pub-calgary.escrimetings.com/filestream.ashx?DocumentId=190999>

¹⁶ Kitchen, Harry, and Enid Slack. 2014. Municipal Taxation in Nova Scotia. April. Accessed November 12, 2021. <https://www.amans.ca/other-resouces/79-municipal-property-taxation-final-report/file.html>

¹⁷ Jordan, Mike. 2017. Business Property Taxation by Cities: What We Know, What We Don't, What We Should. Discussion Paper, Government Relations, Saskatoon: City of Saskatoon. Accessed November 2021. https://www.saskatoon.ca/sites/default/files/documents/asset-financial-management/assessment-taxation/business_property_taxation_by_cities_march_2017.pdf

¹⁸ Association of International Certified Professional Accountants. 2002. Guiding Principles of Good Tax Policy: A Framework for Evaluation Property Tax Proposals. January 31. Accessed November 2021. <https://us.aicpa.org/content/dam/aicpa/advocacy/tax/downloadabledocuments/tax-policy-concept-statement-no-1-global.pdf>

- **Accountability/Simplicity/Transparency**

This broad principle highlights that a tax system should be designed in a way that makes it clear to all stakeholders which stakeholders are paying the tax. It should be designed in a way that encourages more accountability from City Council and City Administration in their determination of the balance between service levels and taxation levels. Rules for the system should be as clear and simple to understand possible allowing the taxpayers to anticipate the tax consequences of a transaction in advance, including when, where and how tax is to be accounted.

- **Efficiency/Ease of Administration**

The final principle dictates that a tax system should be easy to administer, with minimized compliance cost for the taxpayer as well as administrative costs for The City.

Unfortunately, all policy options discussed in this report erode multiple or all principles for evaluating a tax system when compared to Calgary’s current system. However, all options do address year over year tax volatility to varying extents at the expense of one or more of these principles. If we take the three-year smoothed tax shares in Table 3 as an example, we can see that office properties would have been responsible for roughly 1.5 per cent more of the total tax share than was the case in 2021. While this would have decreased some tax volatility experienced by other non-residential property types outside of the downtown core for the last few years, it would also run counter to the fairness principles.

Table 12 - Impact of Policy Options on Principles relative to Current System

	Three-year across-the-board averaging program	Three-year targeted averaging program	Across-the-board rolling average program	Targeted rolling average program
Fairness: Ability to Pay	↓	↓	↓	↓
Fairness: Benefits	↔	↓	↔	↓
Neutrality	↔	↓	↔	↓
Stability & Predictability	↔	↔	↓	↓
Accountability/Simplicity/Transparency	↓	↓	↓	↓
Efficiency/Ease of Administration	↓	↓	↓	↓

Office properties, which have seen consistent decreases in property values since 2017, would have been responsible for a larger share of property taxes than what current market values would result in. This would have created horizontal inequity as office properties, which were seeing decreasing assessed values, would have been directly subsidizing the likes of industrial and retail properties which have

maintained or have seen an increase in assessed values over the last few years. This would apply to all property types should they follow the same trend in the coming years under a smoothing program.

Decreasing assessed values generally means that the income potential of a given non-residential property or ability to pay is also decreasing. As such, these properties should be paying less taxes while those which are seeing increases in income potential or ability to pay, reflected in increasing assessed values, should be paying more. This is contradictory to the equity that is inherent in Calgary's current taxation system today and adopting any options considered in this report could lead to more inequities in the future.

Targeted programs have the same adverse impact to vertical and horizontal equity as they do not apply to all who are experiencing increases and require those with small increases, no change or decreases to directly subsidize those who are eligible for the program to varying extents. It is also possible that those that are benefiting from averaging are disproportionately benefitting from the program as they have the same access to municipal services as those who are not impacted by targeted averaging.

A targeted program could also lead to properties that qualify or are expected to qualify for averaging to be more desirable than others which are not eligible, which does not adhere to the Neutrality principle. Given that a property would have to meet a certain threshold to qualify for assessment averaging, this would also harm the Stability & Predictability principle by introducing moving goal posts which The City would have to manage year over year to ascertain expected revenues. This is especially the case with the rolling average options, not only could this lead to increases in administrative costs but would also erode the tax base, as The City would only be collecting one third of the increases in revenues associated with rising assessment values. Rolling in decreases would potentially increase equity and stability for taxpayers but given that decreases generally benefit taxpayer, a rolling average method here may not be palatable. Between 2020 and 2021, the net value of decreases outweighed net increases in property values. Even if rolling averages for increases and decreases were implemented, there would need to be an increase in the tax current rate in order for the for the program to remain revenue neutral.

Furthermore, this increase would need to be higher if decreases were to be implemented immediately. As such, implementing any rolling average program could create a system where revenues sources fluctuate year over year. It would also create a system that is far from clear and simple, adding complexity that could be difficult for the average taxpayer to comprehend. Applying decreases through

smoothing instead of immediately could also lead to an increase in assessment complaints. It is also likely that not applying decreases immediately could result in legal challenges. This would increase risks of applying smoothing to decreasing assessment values while increasing inequitable treatment among the tax base. While it may be the more inequitable option, applying smoothing to increases only may be the best workable option through legislation.

Moreover, all options discussed herein contradict the Accountability/Simplicity/Transparency as well as the Efficiency/Ease of Administration principles. Any of the assessment smoothing options discussed, regardless of the timeframe and eligibility criteria (across-the-board or targeted) would be a sizeable shift from the current taxation system in place in Calgary and would increase the complexity of the taxation system. Calgary has a relatively simple taxation system compared to major cities across Canada and increasing the current complexities of the system would require The City to allocate more resources as taxpayers come to understand the new system. This could include but is not limited to potential increases in appeals and complaints, additional educational resources, and increasing staffing requirements to provide communication support for 311 service requests, emails, phone calls, and counter visits.

Adopting any of the policy options above would also require the Assessment and Tax business unit to create and staff a new section that would oversee and prepare taxable values for nearly 14,000 comparable non-residential properties. Given the complexities each program this would require, at minimum, the equivalent of four FTEs in addition to any capital investments in The City's systems to offer this program to non-residential properties. This could lead to capital cost increases with benefits for some of Calgary's taxpayers. Among comparable non-residential properties, roughly 2,200 properties saw increases of 5 per cent or more in increases to their assessed values between 2020 and 2021. As such, any across-the-board averaging program would require an increase in administrative costs while benefitting a small subsection of properties. While a targeted program could offer a more cost-effective solution that stands to benefit from assessment smoothing, the benefits would come at the cost of equity.

Presumably, taxpayers would also need to adopt the changes to the new system and incur costs associated with these changes. The City would also need to incur similar costs to proactively address any increased dissatisfaction that may be associated with the property assessment and tax system for taxpayers who are directly and indirectly impacted by smoothing methodology. Any smoothing system is



complex and would require a wide-reaching education and communication strategy to explain the impacts of smoothing on taxpayers. Furthermore, financial support would be required to secure updates to the Tax and Assessment software system in place in Calgary. Cost benefit analysis for both The City and Calgary taxpayers would need to be considered if smoothing is pursued.

The above is consistent with the literature on property tax policy, where the three most prominent concerns with smoothing or averaging are: it is inequitable, it weakens the link between current assessment and taxation, and once implemented, averaging is difficult to remove.¹⁹ All of which could hold true for all options presented in this report. This highlights that while smoothing could have supported those who were most acutely affected by the downtown tax shift, a new smoothing system could increase operating cost for The City and compliance costs for non-residential taxpayers. While smoothing does offer support to those adversely impacted but it could lead to an overall increase in operating costs and thus increase revenue required from property taxes, increasing tax responsibilities for all taxpayers in Calgary.

Despite the drawbacks above, a smoothing program could prove to be a viable systemic alternative to the Phased Tax Program (PTP) that was utilized by The City through the height of the downtown tax shift for multiple years. All alternatives that are discussed in this report would have likely addressed the volatility experienced by some taxpayers resulting from the shift in tax responsibilities. While this would erode the principles discussed earlier in some, or many ways based on the program may have been in place, it could prove to be a more stable and predictable alternative to the PTP to address year over year volatility. Targeted programs mimic some of the benefits of the PTP while being a systemic change rather than a one-time program. Smoothing could also increase predictability from a taxpayer's perspective as they could now anticipate the impact any changes in assessment value would have on their tax responsibilities when they receive an updated assessment notice, unlike the PTP which was more of a reactionary tool used by Council to address volatility and needed to be reapplied each year. In addition to offering predictability, any of the programs discussed in this report could have eliminated the "Bow Wave" effect felt by some taxpayers, where years of capped tax responsibilities would be lifted, and the cumulative impact of all annual increases would be borne by the taxpayer at once.

¹⁹ Kitchen, Harry, Enid Slack, and Tomas Hachard. 2019. Property Taxes in Canada: Current Issues and Future Prospects. Accessed October 2021. <https://tspace.library.utoronto.ca/bitstream/1807/98034/1/Perspectives-27-Kitchen-Slack-Hachard-Property-Tax-Issues-Prospects.pdf>



Since 2015, the downtown shift appears to have slowed and appears to have been largely redistributed to the remaining non-residential properties. This redistribution, dictated by market conditions, is unlikely to place Calgary in the same situation as before. Prior to this redistribution, Calgary's Downtown properties were comprised of a high concentration of a single industry. Economic downturn in that industry and justification for remaining in that space just as new properties were introduced into the mix, reduced the demand for that type of space. While smoothing could have addressed this shift, developing a solution for this unique set of circumstances that are unlikely to repeat to the degree it did in 2015 may cause new issues in the future. As it stands today, introducing a smoothing program may lead to cost increases for most non-residential taxpayers in Calgary by creating higher overall operating costs for The City.

Despite the recent volatility experienced by non-residential properties in Calgary, annual property assessments are considered one of the most effective tools to address volatility and maintain equity. Annual reassessments in market-value systems work to reduce the magnitude of tax increases that come because of rapidly rising property values.²⁰ Annual assessments are a rare occurrence globally and in the absence of annual assessments, indexing between assessments years and phasing in above-average increases can work limit the cost to taxpayer. As Calgary has already committed to maintaining annual assessment, compounding this with additional assessment methodologies would add complexities to the system.

Regardless of the makeup or implementation of a smoothing system in Calgary, implementing smoothing would require and constitute significant reform to Alberta's assessment and tax system. As with all tax reforms, there would be winners and losers as costs and benefits of any reform are generally unevenly distributed.²¹ This could be further compounded by the inequities that are inherent in any smoothing system. As such, any smoothing system could lead to similar inequities that we are attempting to address down the road, albeit slower. Legislative changes to allow for smoothing could also impact equalized assessments across the province, which may pose another hurdle to acquiring

²⁰ Slack, Enid, and Richard M. Bird. 2015. How to Reform the Property Tax: Lessons from around the World. August. Accessed November 2021. https://munkschool.utoronto.ca/imfg/uploads/325/1689_imfg_no.21_online_final.pdf

²¹ Blöchliger, H., and C. Vammalle. 2012. Reforming Fiscal Federalism and Local Government: Beyond the Zero-Sum Game. Paris: OECD Publishing. <https://doi.org/10.1787/9789264119970-en>

legislative changes necessary to implement smoothing in Calgary. Support from other jurisdictions who may not be interested in smoothing may need to be secured prior to adjusting provincial legislation.

Should Council choose to pursue the legislative authority to implement any of the policy options above, in addition to securing legislative authority, it would need to make value-based decisions that balance the trade-offs between the benefits and risks of implementing a smoothing program. Additionally, Administration would require direction from Council to advocate for a suite of legislative changes from the province. Currently, Alberta municipalities do not have the legislative authority to implement smoothing or averaging methods in any capacity and legislative changes would be required. Based on Council's direction, The City would have to invest time and resources to undertake such advocacy.



APPENDIX 1: FINANCIAL TASK FORCE RECOMMENDATION #35

This report and its findings stem from Recommendation #35 of the report which recommends that The City:

Investigate a multi-year assessment smoothing for tax policy update emphasizing evidence from the 2015 to 2019 downtown tax shift for a long-term policy response.

Given recommendation #26 to maintain the annual market value assessment process, investigate a multi-year assessment smoothing for taxation policy update. If warranted, establish revisions to the policy guidance for transmitting the results of annual market value assessment into taxation. The goal is to minimize the changes in property taxes over time for individual taxpayers. To the extent that averaging does not help with reducing volatility, retain the current policy. To the extent that averaging does help reduce volatility, seek legislative or regulatory approvals as required to implement the change.

- Volatility Challenge – The rapid rate of change in Calgary’s cyclical economy results in a high level of volatility for non-residential property assessments and taxes over a limited number of accounts (14,216 for the 2020 tax year). High volatility over a small base contributes to the high level of activity in the complaints process for non-residential accounts. Explore the extent to which reforms using smoothed assessments rather than annual assessment would be beneficial for the policy on yearly tax changes.
- Compile Evidence – Gather evidence on assessment smoothing impacts relative to counterfactual two-year, three-year, and four-year rolling averages of annual assessments. The analysis should emphasize data for the 2015 to 2019 period. The analysis should consider a variety of averaging methods beyond the arithmetic mean.
- Generate Options – Assess the ability of the two-year, three-year, and four-year rolling average options to minimize assessment fluctuations and, by extension, limit tax volatility.
- Taxpayer Support – Explore taxpayer support for changes by starting with the extent to which it provides certainty. Then, extend to tolerance to sustain the practice not just when property assessment values are increasing, but also when they are decreasing.

- Political Support – Deliver the results of the analysis to Council with recommendations for the period average to apply for smoothing property assessments over the long-term if averaging makes sense.
- Legislative Change – If averaging is beneficial for reducing volatility, and the decision is to proceed, seek legislative or regulatory approvals. Use the evidence gathered to inform a business case alongside Council recommendations for provincial government consideration.
- Policy Review – Should the policy review get through the legislative change phase, complete a multi-year assessment and mill rate smoothing review for taxation policy. It should inform practices for long-term financial sustainability.
- Phased Implementation – If there is evidence of the ability to minimize volatility, apply a phased-in approach to implementation to manage taxpayer expectations over time. Including an assessment of impact through the transition.



APPENDIX 2: HISTORY OF TAX CAPPING IN VANCOUVER

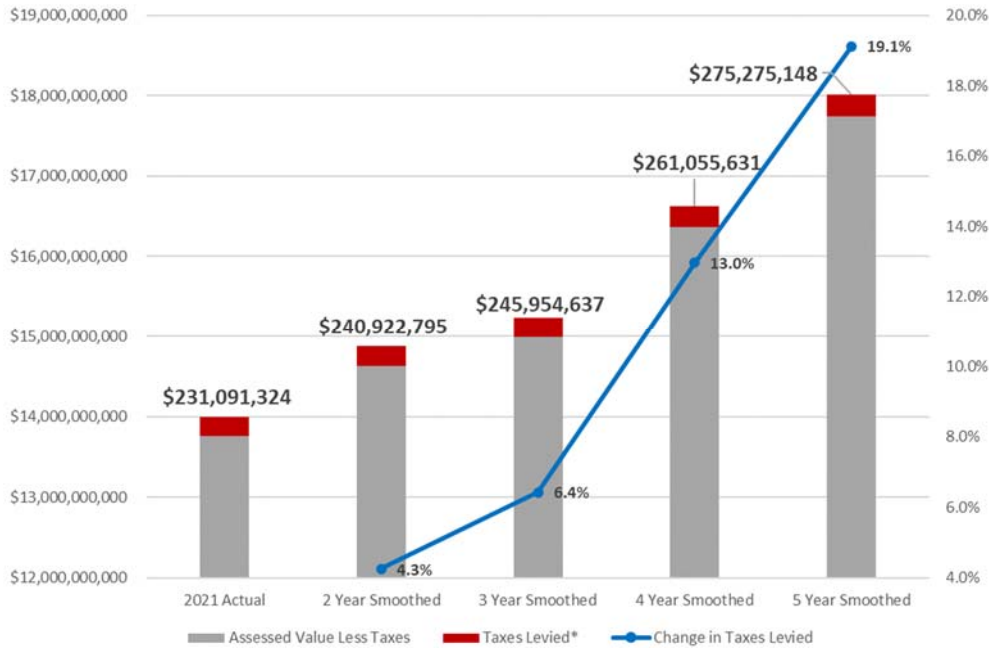
Appendix Table 1 - Summary of Tax Capping in Vancouver 1989-1998²²

Year	Residential Class Measures	Business Class Measures
1989	<ul style="list-style-type: none"> capped land value increases at 61% 	<ul style="list-style-type: none"> capped tax increases at 40%
1990	<ul style="list-style-type: none"> no adjustment to taxation methodology 	<ul style="list-style-type: none"> capped tax increases at 10.1%
1991	<ul style="list-style-type: none"> capped tax increases at 5.5% no limit on tax credit 	<ul style="list-style-type: none"> capped tax increases at 7.5% \$400,000 limit on tax credit
1992	<ul style="list-style-type: none"> capped tax increases at 6.0% \$5,000 limit on tax credit 	<ul style="list-style-type: none"> capped tax increases at 10.0% \$100,000 limit on tax credit
1993	<ul style="list-style-type: none"> implemented three-year land value averaging tax increases capped at 25% for select properties 	<ul style="list-style-type: none"> implemented three-year land value averaging tax increases capped at 25% for select properties
1994	<ul style="list-style-type: none"> continued three-year land value averaging tax increases capped at 10% for select properties \$500 limit on tax credit 	<ul style="list-style-type: none"> continued three-year land value averaging tax increases capped at 10% for select properties \$15,000 limit on tax credit
1995	<ul style="list-style-type: none"> continued three-year land value averaging no tax capping 	<ul style="list-style-type: none"> continued three-year land value averaging tax increases capped at 15% for select properties under a phasing out methodology \$10,000 limit on tax credit
1996	<ul style="list-style-type: none"> continued three-year land value averaging no tax capping 	<ul style="list-style-type: none"> continued three-year land value averaging tax increases capped at 20% for select properties under a phasing out methodology \$7,500 limit on tax credit
1997	<ul style="list-style-type: none"> continued three-year land value averaging no tax capping 	<ul style="list-style-type: none"> continued three-year land value averaging tax increases capped at 25% for select properties under a phasing out methodology \$5,000 limit on tax credit last year of tax increase capping
1998	<ul style="list-style-type: none"> continued three-year land value averaging 	<ul style="list-style-type: none"> continued three-year land value averaging

²² Levitt, K. 1998. "Policy Report, Property Taxation." Administration Report, Department of Finance, Vancouver. Accessed November 2021. <https://council.vancouver.ca/980430/CSB2.HTM>

APPENDIX 3: COMPARISON BY LOCATION OF ASSESSMENT SMOOTHING ON NON-RESIDENTIAL PROPERTIES

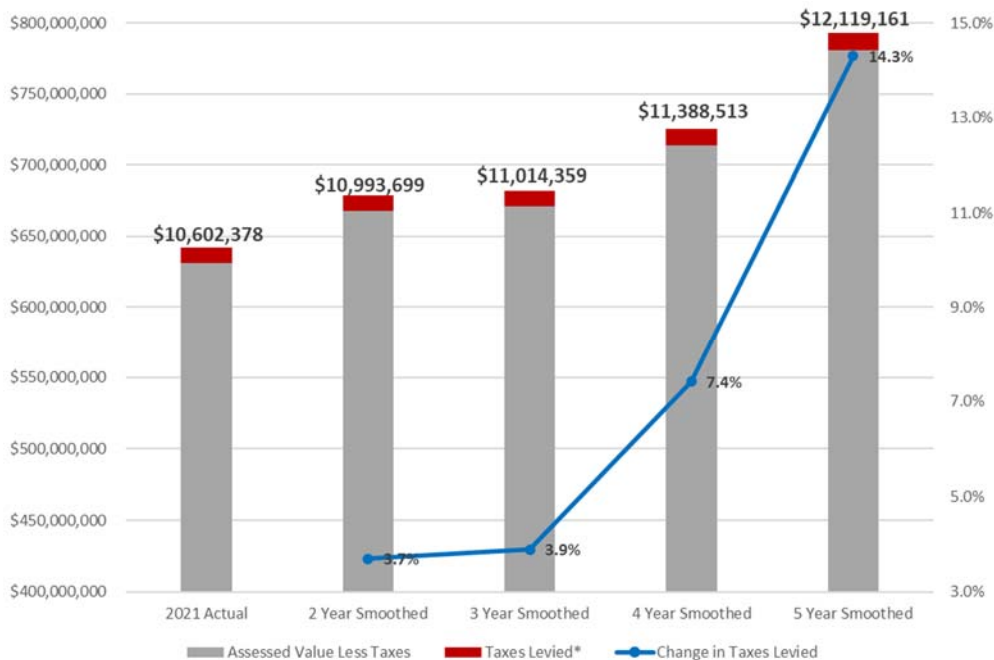
Appendix Figure 1 - Impact of Smoothing on Downtown Properties*



Downtown includes a total of 2,595 non-residential accounts. Offices make-up of the majority at 54 per cent, followed by retail at 25 per cent.

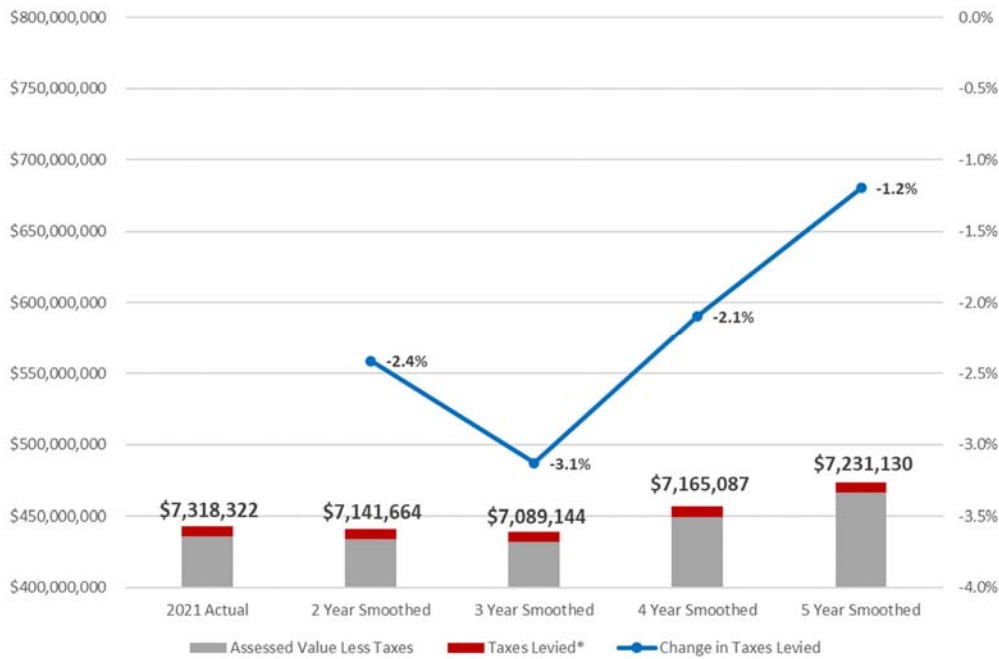
* includes Downtown West End, Commercial Core, East Village, Beltline, Eau Claire, and Chinatown.

Appendix Figure 2- Impact of Smoothing on Douglasdale/Quarry Park Properties



Douglasdale includes a total of 26 non-residential accounts. Offices properties make-up the majority at 48 per cent.

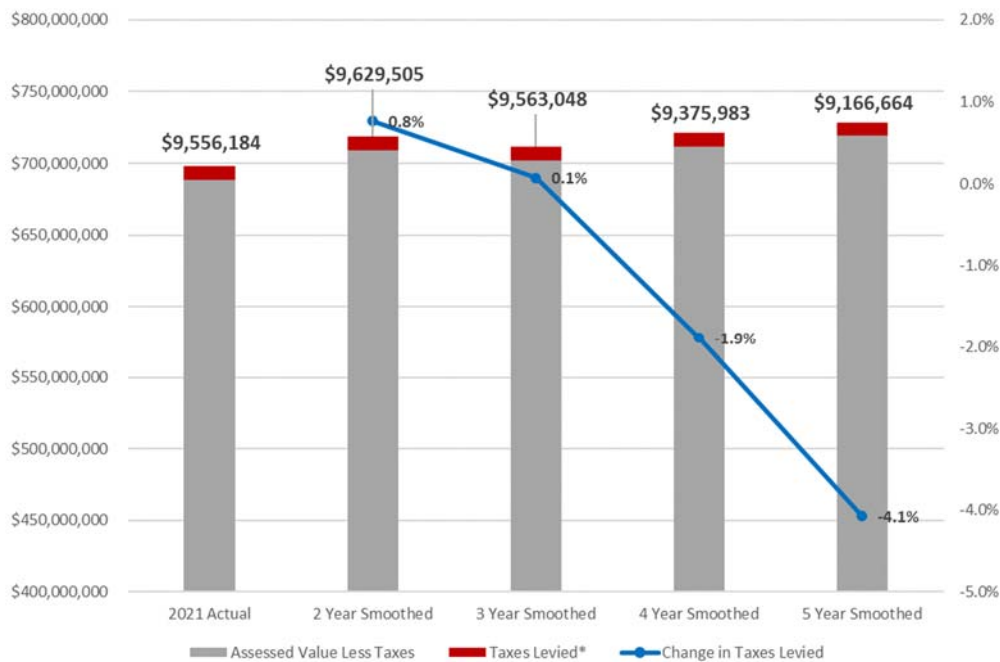
Appendix Figure 3 - Impact of Smoothing on Deerfoot Business Centre



Deerfoot Business Centre has a total of 72 non-residential accounts.

Industrial properties make up the majority at 70 per cent, followed by office at 18 percent.

Appendix Figure 4 - Impact of Smoothing on Shawnessy Area*



Shawnessy and area has a total of 69 comparable non-residential accounts.

Retail properties make-up the majority at 65 per cent.

* includes Shawnessy, Evergreen, Bridlewood, Somerset, Millrise, and Shawnee Slopes.

APPENDIX 4: IMPACTS OF ACROSS-THE-BOARD AND TARGETED FIVE-YEAR SMOOTHING

If Calgary were to implement a 5-year smoothing program, assessed values for the non-residential tax base would be higher than they were in 2021. In this case, The City could have applied a lower tax rate to non-residential properties if it wanted to collect the same overall revenue for municipal services. The resulting change in taxable values and tax rate would shift tax responsibilities from industrial and retail properties to office properties. While this was the case for this instance of volatility in Calgary, this may not be the case in the future.

Appendix Table 2 - Tax Shares under Five-Year Across-the-board Smoothing

Property Type	2021 Tax Shares	5 Year Smoothed Tax Share (2017-21)	Total Change in Share
Industrial	30.08%	26.67%	-3.41%
Multi Residential	0.57%	0.51%	-0.06%
Office	26.81%	31.85%	5.04%
Retail	31.03%	29.66%	-1.37%
Single Residential	0.09%	0.09%	0.00%
Special Purpose and Land	11.42%	11.24%	-0.18%
Tax Rate Used	0.0165130 (Actual)	0.0152790 (Adjusted)	

For a targeted program, under a 4 per cent eligibility threshold, roughly 19 per cent of all accounts and 26 per cent of the total assessed value would have been impacted. As Appendix Table 3 below highlights, applying averaging to this subsection of non-residential properties reduce the overall assessed values (taxable value) by 5.6 per cent under a five-year averaging program, the 2021 tax rate would have also created a \$13 million drop in tax responsibility for these properties. While this drop in tax responsibility provides relief for those experiencing year over year increases, for this averaging scenario to be revenue neutral, one of two methods must be implemented.

Since a targeted program would reduce the non-residential tax base, the tax rate would have had to increase for The City to maintain municipal services. The first option would be to increase the non-residential tax rate by 1.9 per cent increase under a five-year averaging program for all properties ineligible for the program. This would lead to horizontal inequities as it forces those who would not be eligible for the program to directly subsidize those who were and would require legislative changes to enable further subclasses.



Appendix Table 3 - Estimated Assessed Values and Taxes for Properties with more than 4% Increase

Property Type	2021 Assessed Value	2021 Taxes	2021 5 Year Smoothed Assessed Value (2017-21)	2021 5 Year Smoothed Tax Value	Count of Accounts
Industrial	9,038,522,950	149,253,129	8,396,239,131	138,647,097	1,646
Multi Residential	246,304,243	4,067,222	231,675,530	3,825,658	80
Office	1,393,000,342	23,002,615	1,454,010,017	24,010,067	194
Retail	3,090,301,454	51,030,148	2,920,896,342	48,232,761	493
Single Residential	4,967,000	82,020	4,803,500	79,320	3
Special Purpose and Land	650,946,902	10,749,086	605,914,974	10,005,474	197
	14,424,042,891	238,184,220	13,613,539,494	224,800,378	2,613
Difference from Actual 2021 Values			-5.6%	(13,383,843)	

Alternatively, The City could have increased the tax rate for all non-residential properties regardless of their eligibility for the program. A tax rate increase of 1.5 per cent to the 2021 tax rate across all non-residential properties could have allowed The City to maintain municipal services while alleviating \$10 million in tax responsibilities rather than \$13 million.

The 15 per cent more than the class average or 9 per cent or more in increases in assessed values between 2020 and 2021 criteria, would have allow The City to support those experiencing the highest level of increases. It would have applied to about 9 per cent of all properties representing 15 per cent of all assessed values and, as Appendix Table 4 below highlights, would have covered 48 per cent of the properties that would have been eligible under the lower threshold. The benefits to eligible taxpayers would follow a similar pattern. Under the 9 per cent threshold and a five-year assessment smoothing program eligible properties would have still seen nearly \$10 million shift in tax responsibilities.

Appendix Table 4 - Estimated Assessed Values and Taxes for Properties with more than 9% Increase

Property Type	2021 Assessed Value	2021 Taxes	2021 5 Year Smoothed Assessed Value (2017-21)	2021 5 Year Smoothed Tax Value	Count of Accounts
Industrial	5,124,394,450	84,619,126	4,663,693,823	77,011,576	620
Multi Residential	225,671,131	3,726,507	211,699,065	3,495,787	63
Office	968,179,342	15,987,545	991,960,234	16,380,239	136
Retail	1,733,317,134	28,622,266	1,618,298,405	26,722,962	288
Special Purpose and Land	487,567,097	8,051,195	443,080,300	7,316,585	134
	8,539,129,154	141,006,640	7,928,731,826	130,927,149	1,241
Difference from Actual 2021 Values			-7.1%	(10,079,491)	

As with the 4 per cent threshold, adjustments would have had to be applied to the tax rates for The City to maintain services. An increase of 1.3 per cent in the non-residential tax rate for those properties that would not be eligible for the five-year program would allow The City to remain revenue neutral. As



mentioned throughout this report, this leads to equity concerns as those that are not eligible would be directly subsidizing those who are. An increase of 1.1 per cent to the 2021 non-residential tax rate across-the-board for the five-year program increase equity and allow The City to maintaining service levels. This would reduce the tax responsibility shifted from eligible properties from \$10 million to \$8.6 million under a five-year approach. In addition to the above, the shifts in tax responsibility may also be funded through The City's reserve fund.



BIBLIOGRAPHY

Association of International Certified Professional Accountants. 2002. *Guiding Principles of Good Tax Policy: A Framework for Evaluation Property Tax Proposals*. January 31. Accessed November 2021. <https://us.aicpa.org/content/dam/aicpa/advocacy/tax/downloadabledocuments/tax-policy-concept-statement-no-1-global.pdf>.

Avison Young. 2022. *Q1 2022 AY Calgary Office Market Report*. April 21. Accessed May 2022. <https://www.avisonyoung.ca/web/calgary/market-report/-/ayr/view/calgary-office-market-report-q1-2022>.

Blöchliger, H., and C. Vammalle. 2012. *Reforming Fiscal Federalism and Local Government: Beyond the Zero-Sum Game*. Paris: OECD Publishing. <https://doi.org/10.1787/9789264119970-en>.

City of Halifax. No Date. *Commercial Assessment Averaging Program*. Accessed October 2021. <https://www.halifax.ca/home-property/property-taxes/commercial-tax-policy/commercial-assessment-averaging-program>.

City of Vancouver. No Date. *Land Assessment Averaging*. Accessed October 2021. <https://vancouver.ca/home-property-development/land-assessment-averaging.aspx>.

City of Vancouver Property Tax Review Policy Commission. 2014. *2014 Report*. Vancouver: City of Vancouver. Accessed October 2021. <https://vancouver.ca/taxcommission/assets/pdf/report-property-tax-policy-reivew-2014-colour.pdf>.

City of Vancouver Property Tax Review Policy Commission. 2007. *Final Report*. Vancouver: City of Vancouver. Accessed December 2021. <https://vancouver.ca/taxcommission/assets/pdf/2007-commission-report.pdf>.

Financial Task Force Implementation Team. 2021. *Tax Distribution Scoping Report*. Calgary: The City of Calgary. <https://pub-calgary.escribemeetings.com/filestream.ashx?DocumentId=190999>.

International Association of Assessing Officers. 2020. *Standard on Property Tax Policy*. Missouri: International Association of Assessing Officers. Accessed February 2022. https://www.iaao.org/media/standards/Standard_on_Property_Tax_Policy.pdf.



- Jordan, Mike. 2017. *Business Property Taxation by Cities: What We Know, What We Don't, What We Should*. Discussion Paper, Government Relations, Saskatoon: City of Saskatoon. Accessed November 2021. https://www.saskatoon.ca/sites/default/files/documents/asset-financial-management/assessment-taxation/business_property_taxation_by_cities_march_2017.pdf.
- Kitchen, Harry, and Enid Slack. 2014. *Municipal Taxation in Nova Scotia*. April. Accessed November 12, 2021. <https://www.amans.ca/other-resouces/79-municipal-property-taxation-final-report/file.html>.
- Kitchen, Harry, Enid Slack, and Tomas Hachard. 2019. *Property Taxes in Canada: Current Issues and Future Prospects*. Accessed October 2021. <https://tspace.library.utoronto.ca/bitstream/1807/98034/1/Perspectives-27-Kitchen-Slack-Hachard-Property-Tax-Issues-Prospects.pdf>.
- Levitt, K. 1998. "Policy Report, Property Taxation." Administration Report, Department of Finance, Vancouver. Accessed November 2021. <https://council.vancouver.ca/980430/CSB2.HTM>.
- Municipal Property Assessment Corporation. 2022. *How Phase In Works*. Accessed January 2022. <https://www.mpac.ca/en/UnderstandingYourAssessment/FourYearAssessmentCycle/HowPhaseworks>.
- Ontario Chamber of Commerce. 2021. *Better Budgets: Bolstering the Fiscal Resilience of Ontario's Municipalities*. July 21. Accessed January 2022. https://occ.ca/wp-content/uploads/Better-Budgets-Bolstering-the-Fiscal-Resilience-of-Ontarios-Municipalities.pdf?_cldee=YnJpdHRhbnlAdGlsbHNvbmJ1cmdjaGFtYmVyLmNh&recipientid=contact-6ff08fd540ece911a95d000d3a34ebb5-d8946ba75ad3412ba33b9c89a5c52ead&esid=412.
- Property Valuation Services Corporation. 2022. *Property Classifications*. Accessed November 2021. <https://www.pvsc.ca/en/home/howassessmentworks/assessmentprocess/propertyclassifications.aspx>.
- Saskatchewan Chamber of Commerce. 2022. *Issue in Focus: Property Revaluation & Tax Policy*. June. Accessed January 2022. <https://saskchamber.com/isl/uploads/2020/11/Issue-in-Focus-Property-Revaluation-Tax-Policy.pdf>.

Slack, Enid. 2008. "Theory and Practice of Property Tax Relief: Recommendations of the Vancouver Property Tax Policy Review Commission." *Presentation to Canadian Property Tax Association*.

Toronto, Canada, February 11. Accessed October 2021.

<https://cupdf.com/document/presentation-to-canadian-property-tax-association-toronto-ontario-enid-slack.html>.

Slack, Enid, and Richard M. Bird. 2015. *How to Reform the Property Tax: Lessons from around the World*.

August. Accessed November 2021.

https://munkschool.utoronto.ca/imfg/uploads/325/1689_imfg_no.21_online_final.pdf.