

# The Housing Affordability Benefits of Commutershed Land Use Planning: A Case Study of Ottawa and Toronto Metropolitan Areas



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\*The opinions expressed in this research report is that of the author only and do not necessarily represent the opinions and views of either CUR or Toronto Metropolitan University.

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## Executive Summary

This paper addresses why since the mid-2000s housing affordability in Ontario's largest metropolitan area, Toronto, has deteriorated much more than in the province's second-largest metropolitan area, Ottawa. A metropolitan area is a proxy for a housing market since it connects where most people live and work within an urban region.

The ability of a median-income household to purchase an average-priced single-detached house was the same in the two urban regions in the mid-1980s. However, by 2022 the gap had widened such that the medium-income household in Toronto had to spend almost twice its income share for the same home purchase as an Ottawa household.

There is a growing awareness that an inverse relationship exists between housing prices and the characteristics of the land use planning framework. The paper examines the roles of demographic, economic, and housing market factors in the increasing affordability gap between the Toronto and Ottawa census metropolitan areas (CMAs) with the influence of the planning systems being determined residually.

It is concluded that the widening affordability gap is most likely due to:

- Municipal and planning fragmentation in metropolitan Toronto versus a single dominant municipality in metropolitan Ottawa;
- The Province's imposition of additional planning layers on municipalities in the Greater Golden Horseshoe but not metropolitan Ottawa (i.e., the **Growth Plan for the Greater Golden Horseshoe**, the **Greenbelt Act**).

The research supports undertaking of a more in-depth analysis of the impact of the land use planning regimes on short-term land inventories and new ground-related housing production in the two metropolitan areas to better understand the relationship between these variables and their implications for housing affordability.

## Background

This study explores the housing affordability implications of two land use planning regimes – the more onerous, stringent, and uncoordinated regime in the Toronto Census Metropolitan Area (CMA) and the City of Ottawa’s more responsive, less stringent, and more regionally coordinated planning system. Unlike the City of Toronto, the City of Ottawa’s boundary encompasses much of the Ottawa CMA since its amalgamation in 2001.<sup>1</sup> The Ottawa and Toronto CMAs are frequently shortened in this paper to “Ottawa” and “Toronto”.

The hypothesis this paper examines is that differences in land use planning regimes between the two CMAs account for much of the housing affordability gap between them. It is argued that while the Ottawa CMA is much smaller than the Toronto CMA in population, employment, and housing demand, their relative growth profiles have been comparable. Residually, the affordability gap results from a greater sluggishness in bringing suitable zoned and serviced land in both built-up areas (e.g., redevelopment and intensification) and greenfield areas (e.g., farmland) to build new housing in the Toronto CMA than in the Ottawa CMA.<sup>2</sup>

## **Inverse Relationship Between Restrictiveness of Land Use Regulation and Housing Prices**

The planning and economics literature is full of the vortexes of overly zealous land use planning regimes and their negative impacts on housing affordability. Examples include:

- David Amborski, in a 2016 paper, warned of the necessity to guard against excessive land regulation when considering the impact on housing prices<sup>3</sup>;
- A recent study in California found a direct relationship between the complexity of municipal planning regimes and housing prices. According to the study, housing prices

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<sup>1</sup> Maps showing the geographic areas encompassed by the Toronto and Ottawa CMAs are included in the Appendix. The Toronto CMA is often used interchangeably with the Great Toronto Area (GTA). The GTA includes two CMAs, Toronto and Oshawa, but Toronto predominates. The City of Ottawa encompasses most of the Ottawa CMA though in recent years it accounts for a declining share of population growth and housing production. The Ottawa CMA is part of the larger Ottawa-Gatineau CMA (81% of the population is in Ontario). However, institutional and language differences between the two sides of the Ottawa River support focusing on the Ottawa part of the greater CMA. The city of Ottawa retains the boundaries of the former region of Ottawa-Carleton.

<sup>2</sup> The CMA-comparative analysis implicitly assumes municipal councils in CMAs where the central city still has a plentiful supply of greenfield land will see the need to provide serviced sites to accommodate a range of new housing including ground-related housing forms. The author's experience is that this is the usual case but there are exceptions. The Hamilton CMA where the city of Hamilton dominates is a notable anomaly. Its Council voted against bringing more greenfield land into its urban boundary. What this decision means is that few ground-related housing units will be built in the city despite a robust requirement for them. The result will be higher prices for existing homes in the future than otherwise would be the case.

<sup>3</sup> David Amborski, **Affordable Housing and Land Supply Issues in the Greater Toronto Area (GTA)**, CUR, November 4, 2016, p. 8.

would be 25% lower in the City of Los Angeles if it had the same planning restrictions as the least onerous cities in California<sup>4</sup>;

- A study quantifying the impact of land-use regulation in cities in New Zealand concluded that up to 56% of the cost of an average home in Auckland could be due to land-use regulation compared to a world without land-use regulation<sup>5</sup>;
- A CMHC study concluded that metropolitan Vancouver and Toronto have the lowest price elasticity of housing supply of the six census metropolitan areas examined<sup>6</sup>;
- Research published by the Bank of Canada concluded that the housing supply elasticity in the Toronto CMA was the fourth lowest among 33 CMAs, following Regina, Vancouver, and Montreal. Ottawa-Gatineau was the 18<sup>th</sup> lowest<sup>7</sup>; and
- Ben Dachas and Vincent Thivierge at the C.D. Howe Institute examined the gap between market prices and the construction cost of new single-detached houses in Canadian CMAs, which they state often stems from excessive regulation.

Their research indicates the regulatory burden in Toronto was an estimated \$168,000 vs. \$112,000 in Ottawa-Gatineau.<sup>8</sup> They also calculated the construction cost gap relative to the sale price per sq. ft. (the cost of barriers to building) widened between the Toronto and Ottawa CMAs from 2013 through 2016, with Toronto increasing and Ottawa decreasing.

The above analyses support that the CMAs with more price inelastic (less responsive to housing price changes) planning regimes have a lesser housing supply response and, therefore, higher prices when there is an increase in demand. Price unresponsiveness is more applicable to the Toronto CMA than the Ottawa CMA.

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<sup>4</sup> Desen Lin and Susan Wachter, **The Effect of Land Use Regulation on Housing Prices: Theory and Evidence from California**, Working paper #817, Wharton Real Estate Center, April 4, 2019, p. 29.

<sup>5</sup> Sense Partners, **Quantifying the Impact of Land-Use Regulation: Evidence from New Zealand**, Report for Superu, Ministerial Social Sector Research Fund, June 2017, p. 5.

<sup>6</sup> CMHC, **Examining Escalating House Prices in Large Canadian Metropolitan Centres, 2018**, p. 7.

Price elasticity of supply measures the extent of the responsiveness of new housing supply to changes in housing prices.

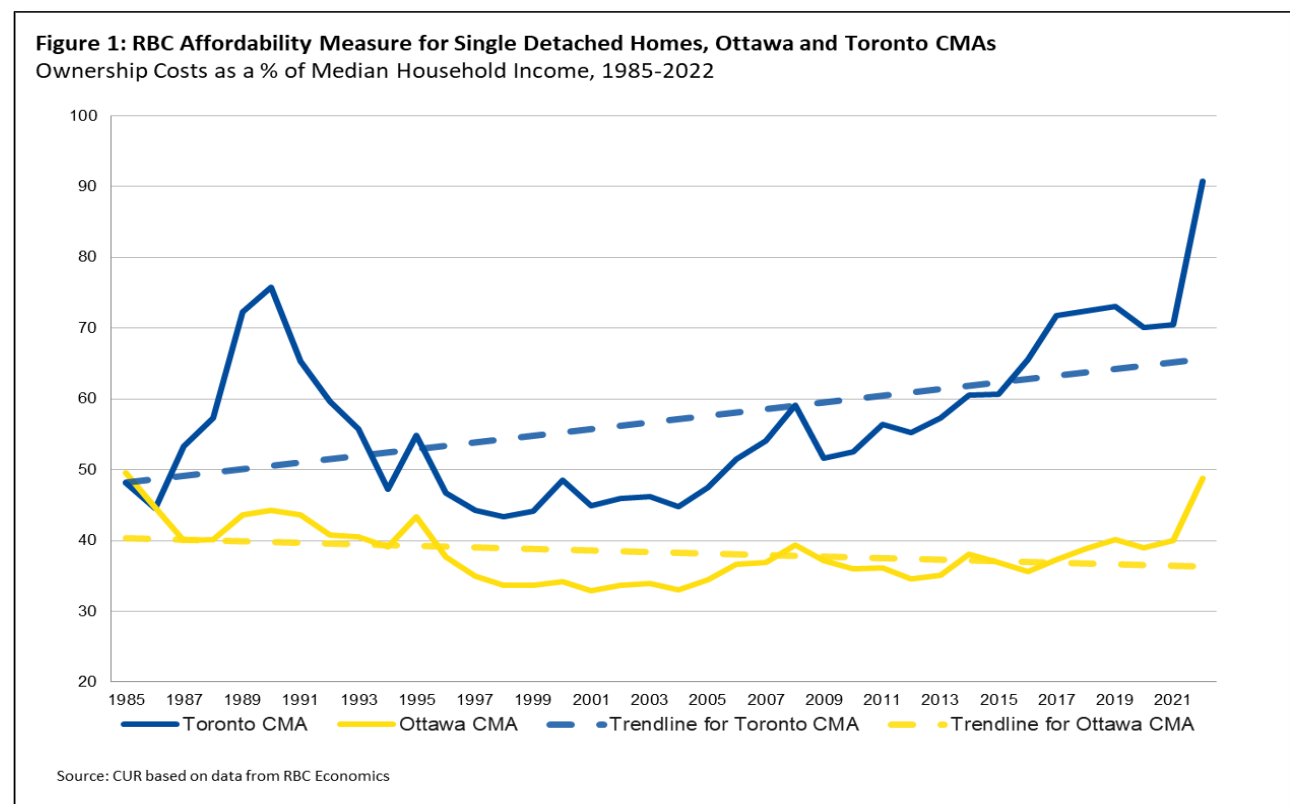
<sup>7</sup> Nuna Paixao, **Canadian Housing Supply Elasticities**, Staff Analytical Note, Bank of Canada, September 9, 2021, p. 5. According to this paper, Regina and Montreal had larger inelasticities of supply than Toronto and Vancouver, which in our view, is incorrect.

<sup>8</sup> Benjamin Dachis and Vincent Thivierge. **Through the Roof: The High Cost of Barriers to Building New Housing in Canadian Municipalities**. C.D. Howe Institute, Commentary No. 513. May 2018. pp. 10-13.

## Housing Affordability is Much Better in Ottawa Than in Toronto Since 1987 and is Less Volatile

According to RBC Economics, the affordability patterns have varied between Toronto and Ottawa CMAs since 1988, with Ottawa being consistently lower than Toronto, as seen in Figure 1. RBC's affordability measure, ownership costs as a percent of median household income, has a long-term average of about 48% of income in Toronto and about 36% in Ottawa.<sup>9</sup>

Back in the mid-1980s, affordability in Toronto and Ottawa was about the same. However, the market dynamics in the two metropolitan regions diverged in the late 80s and continued to the present. Therefore, not only has housing affordability been better in Ottawa than in Toronto, but the fluctuations in affordability have also been less pronounced in Ottawa.



### Highlights: 2001-2022

- From 2001 to 2022, housing affordability was better in Ottawa than in Toronto, opposite the situation in the mid-1980s, with the gap widening over time:

<sup>9</sup> The RBC Housing Affordability Measure in Figure 1 shows the proportion of median pre-tax income that would be required to cover mortgage payments (principal and interest), property taxes, and utilities to purchase single-family detached homes based upon the benchmark market price. Data provided in an email dated October 9, 2023, from Robert Hogue, Assistant Chief Economist, RBC Economics.

- In the Ottawa CMA, ownership housing remained affordable for a lengthy time (2001-2016) before deteriorating in 2017-2021, which accelerated in 2022;
- In contrast, housing affordability in the Toronto CMA remained stable for just four years in the early 2000s (2001-2004) followed by a deterioration throughout 2005-2022, with reduced affordability being pronounced in 2022; and
- There was more volatility in Toronto's affordability measure than in Ottawa's.

In summary, the primary difference in affordability between the Toronto and Ottawa CMAs over 2001-2022 is the relative stability of affordability in Ottawa and the longer-term decline in affordability in Toronto.

## **Research Scope**

This research paper examines the reasons behind differing housing affordability in the Toronto and Ottawa CMAs. The Gatineau portion of the Ottawa-Gatineau CMA is excluded. The focus is on ground-related housing (single- and semi-detached houses and townhouses) and the inventory of short-term greenfield lands to accommodate the demand for ground-related housing.<sup>10</sup>

The paper examines the following for the Toronto and Ottawa CMAs from the early 2000s to the end of 2022:

- Comparison of existing housing market conditions;
- Comparison of housing demand factors;
- Comparison of housing supply factors;
- Comparison of short-term residential land inventories; and
- Comparison of new housing production and the inventories of short-term land.

The hypothesis examined is that ground-related housing will be less affordable in areas where the inventory of registered and draft-approved subdivision land which is serviced with critical infrastructure like sewer and water is more restricted and less responsive to market forces than when the inventory is more plentiful and responsive, other things being equal.

## **A Word About the Geographic Areas Utilized**

Census metropolitan areas (CMAs) are a meaningful geographic focus for housing market analysis. CMA boundaries are based on where residents live and work and commuting patterns.<sup>11</sup>

These two metropolitan areas differ in size and are split between the central city (cities of Ottawa and Toronto) and the suburbs (the rest of the CMA), as shown in Figure 2.

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<sup>10</sup> Most ground-related housing is built on greenfield lands on the urban fringe while most apartments are built on sites in built-up areas.

<sup>11</sup> See maps in the appendix.



<b>Figure 2 - Total Population by Subarea - Toronto &amp; Ottawa CMAs, 2021 (000s)</b>		
	Toronto CMA	Ottawa CMA
Persons (1000s)		
Central City	2,794	1,017
Suburbs	3,408	118
Total CMA	6,202	1,135
Percentage Distribution		
Central City	45%	90%
Suburbs	55%	10%
Total CMA	100%	100%

Source: CUR based on data from the Census of Canada.

Highlights include:

- The Toronto CMA has a much larger population than Ottawa;  
The Toronto CMA's population in 2021 was 5.5 times as large as Ottawa's. Alternatively, the population of the Ottawa CMA was 18.3% of Toronto's; and
- Most residents of the Ottawa CMA live in the City of Ottawa, whereas the majority of the Toronto CMA's population lives in municipalities other than the City of Toronto.

It should be noted that sometimes the Toronto CMA and the Greater Toronto Area (GTA) are used interchangeably.<sup>12</sup> While the GTA is much larger geographically than the Toronto CMA, the CMA accounts for most of the GTA's population (93%). For Ottawa, we switch between referring to the City of Ottawa and the CMA since the city dominates the CMA.

### **Format of Figures Comparing Toronto and Ottawa**

To compensate for the size difference between the Toronto and Ottawa CMAs most of the figures utilize two scales with the Toronto scale on the left axis and the Ottawa scale on the right axis. The Ottawa scale is 20% of the Toronto scale, representing the approximate percentage difference in the populations of the CMAs in 2021.

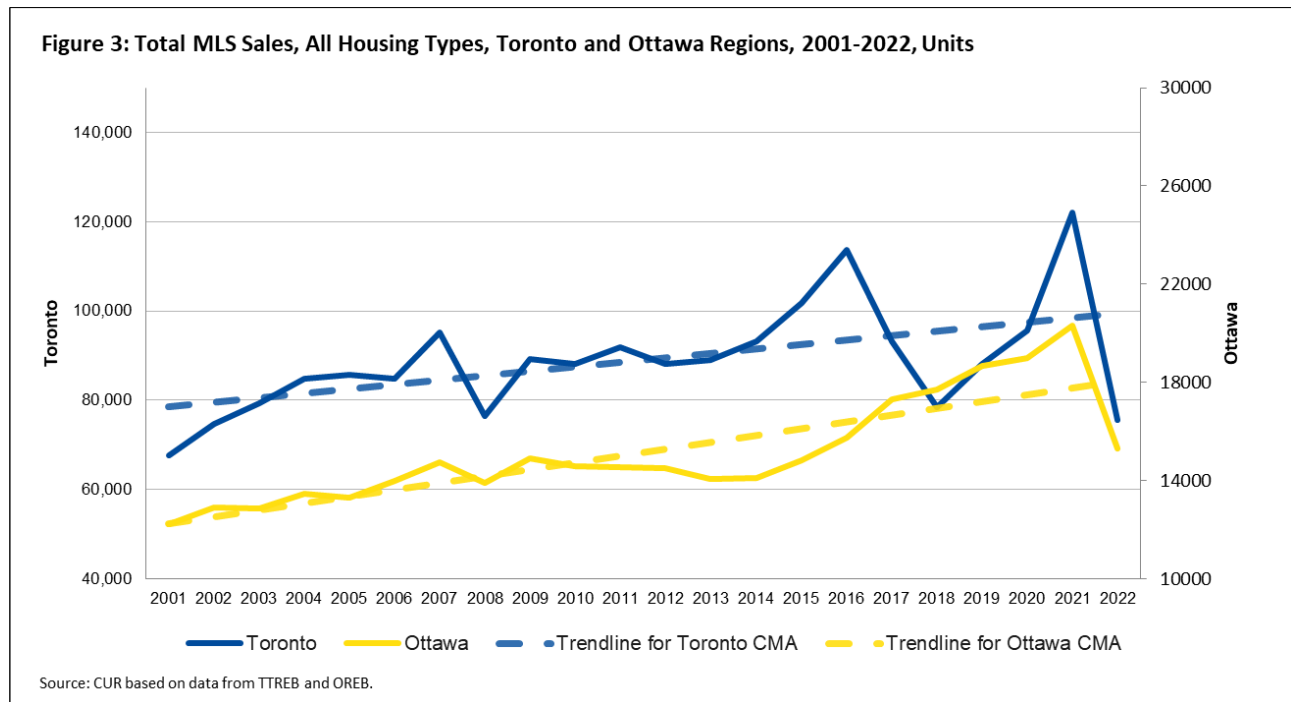
<sup>12</sup> In addition to the City of Toronto the GTA includes four regional municipalities: Durham, York, Peel and Halton.

## A Comparison of Existing Housing Market Conditions

This section explores the performance of the existing housing market in the two CMAs, looking at sales, sales-to-new-listings ratio, and average prices for the ownership market. The data for the presentation are from the real estate boards' Multiple Listing Service (MLS), which embraces most sales of existing homes. CMHC's annual apartment vacancy rate examines the existing rental housing market.

### MLS Residential Sales<sup>13</sup>

The sales of existing residential properties through the multiple listing service for 2001-2022 are presented in Figure 3.



### Highlights:

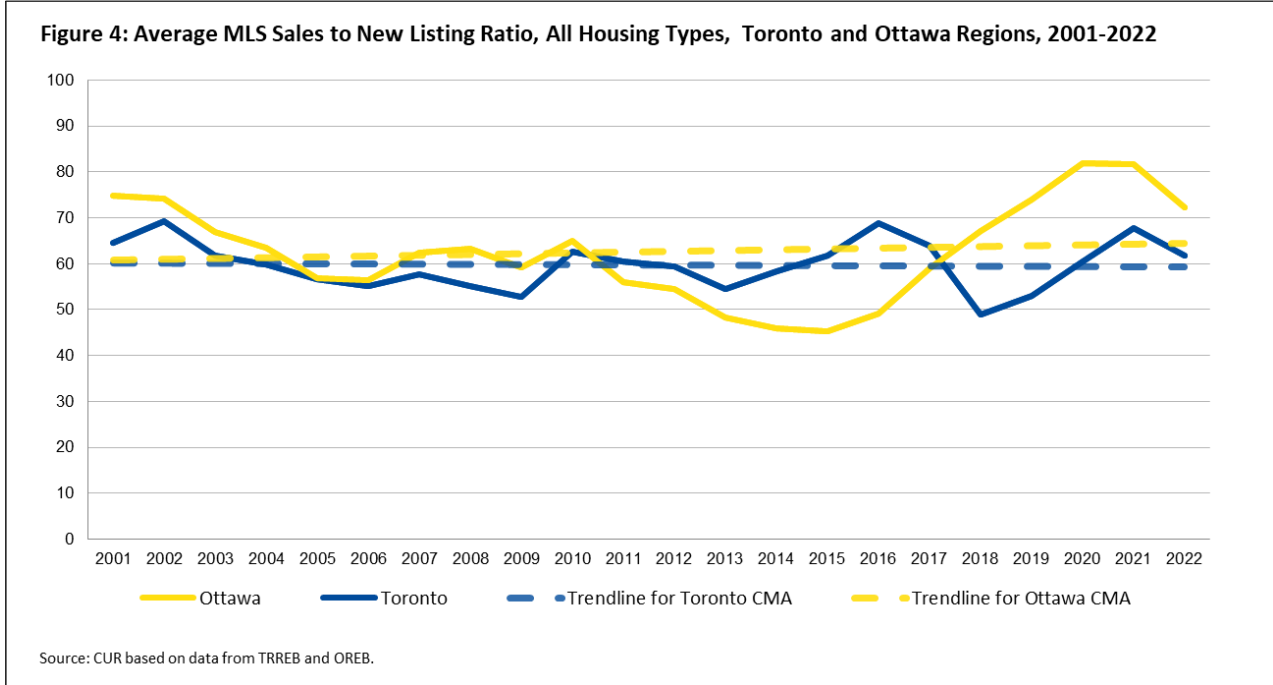
- MLS sales in the Toronto CMA were more robust than Ottawa's between 2001 and 2022;
- Sales trended upward in both CMAs, with Ottawa's trendline somewhat stronger; and
- There was more volatility in annual sales in Toronto than in Ottawa.

<sup>13</sup> MLS sales refers to all residential property sales under the auspices of the Greater Toronto Regional Real Estate Board (TRREB), for an area similar in size as the GTA, and the Ottawa Real Estate Board (for an area larger than the CMA). Most sales are existing homes.

The higher level of sales in Toronto suggests there is more turnover in the existing ownership housing stock than in Ottawa. There is little correspondence between sales and affordability in the two CMAs between 2001 and 2022, but there’s more volatility in annual sales in Toronto.

**MLS Sales-to-New-Listings Ratio**

The MLS sale-to-new-listing ratio expresses the number of MLS residential sales during a month as a ratio of MLS listings placed on the market during the month (see Figure 4). The MLS sales to new listings ratio indicates the overall state of the resale housing market. A ratio in the 50% range indicates a balanced market, a lower ratio represents a buyer’s market, and a higher ratio represents a seller’s market. Average prices tend to rise more in a seller’s market and are flat or even decline in a buyer’s market.



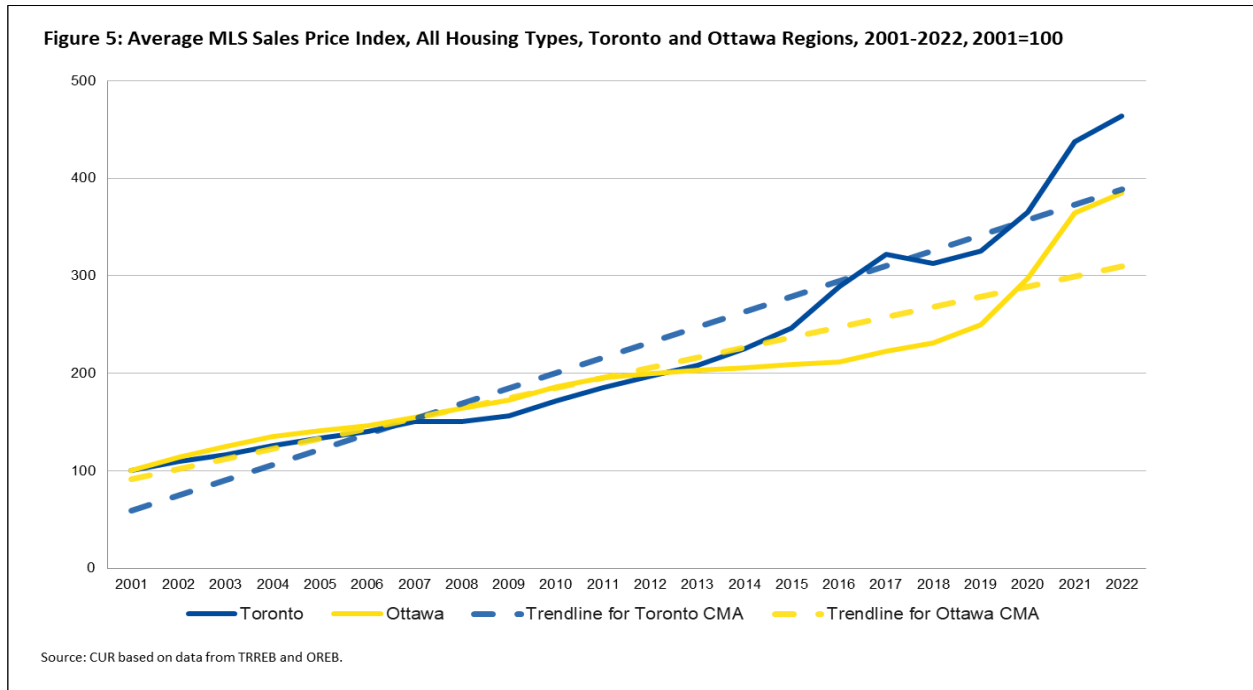
**Highlights:**

- There are three phases in comparative housing market conditions over the 2001-2022 period:
  - 2001-2010: Both markets were seller’s markets, with the sales-to-new-listings exceeding 50%;
  - 2011-2017: The markets diverged, with the Ottawa market moving into a buyer’s market, whereas Toronto continued to be a seller’s market; and
  - 2018-2022: Market conditions in Ottawa surged into seller’s market territory while Toronto was closer to a balanced market, though still favouring sellers.

There is no close correlation between trends in the affordability measure and MLS market conditions in the two CMAs.

### Average MLS Prices<sup>14</sup>

Figure 5 shows average MLS sales prices by year from 2001 to 2022 for the Ottawa and Toronto CMAs.



### Highlights:

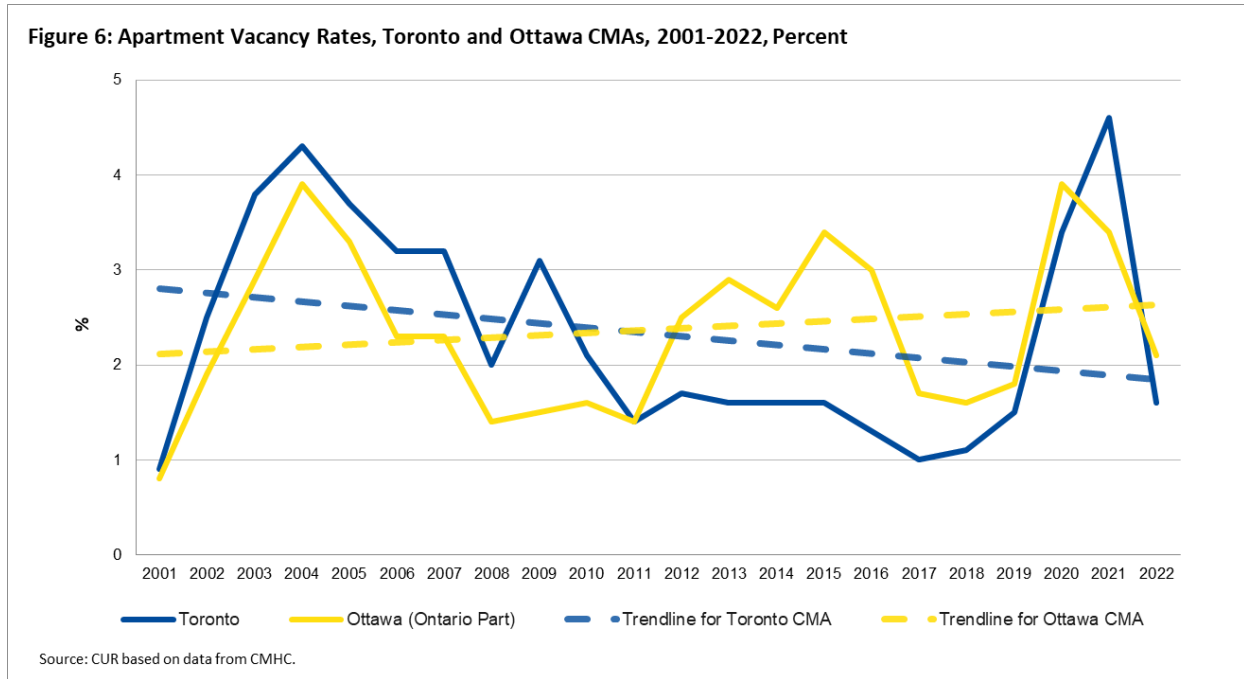
- The phases of average price growth over 2006-2022 coincided with the patterns in the sales-to-new listing ratio in the two CMAs:
  - 2006-2012: Increases in average prices were modest and about the same in both the Toronto and Ottawa CMAs;
  - 2013-2017: Average prices rose much faster in Toronto than in Ottawa; and
  - 2018-2022: Average prices climbed more rapidly in both CMAs.

As expected, there is a close correlation between increases in average sales prices and the differences in the affordability patterns in the two CMAs.

<sup>14</sup> Average prices for all types of residential properties sold through the MLS channel.

## Rental Apartment Vacancy Rate

Turning to the existing rental housing market, Figure 6 presents the CMHC rental apartment vacancy rate for the two CMAs from 2001 to 2022. Typically, a 2.0 % to 3.0% vacancy rate is a balanced market. A higher rate reflects a tenant's market, and a lower rate a landlord's market.



### Highlights:

- The behaviour of the vacancy rate in the two CMAs was similar except for between 2012 and 2019 when the Ottawa vacancy rate was in the balanced market range and Toronto had a tighter market; and
- More generally, the long-term trend in the vacancy rate was downward in Toronto and rising in Ottawa.

### Summary: Existing Housing Market Conditions

As expected, there is a similarity between existing housing market prices and housing affordability between 2001 and 2022. Average prices and interest rates are prime inputs into RBC's affordability measure. A downward drift in mortgage interest rates from the early 1990s to 2021 supported housing demand and rising average prices. Only in 2022 did rising interest rates dampen sales by significantly reducing home purchase affordability. Since median incomes change gradually, the variations in affordability since 2001 are essentially the product of price changes.

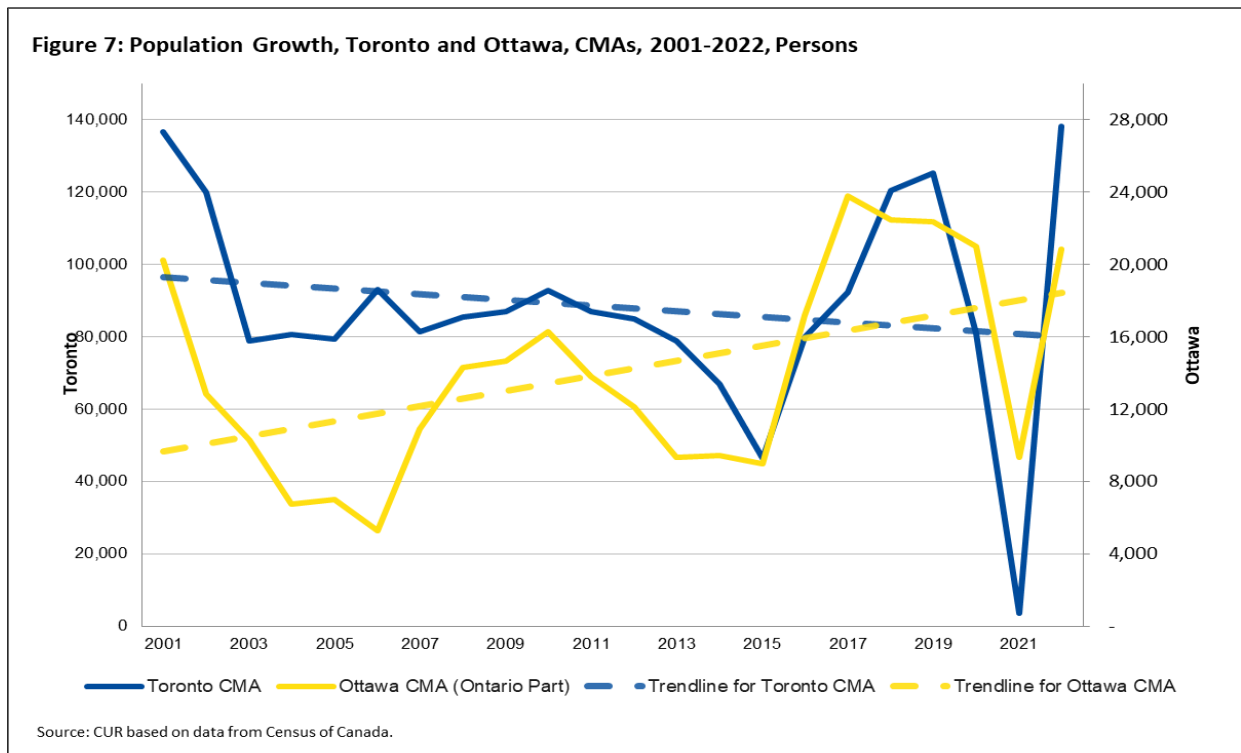
Surprisingly, the long-term trends in MLS sales and the MLS sales-to-new-listing ratios in the two CMAs did not favour Toronto more over Ottawa between 2001 and 2022, given the much more sizable increase in average housing prices in Toronto.

## A Comparison of Demand Factors

This section describes how demand factors in the two CMAs have performed over time. These factors include population, employment, and income growth. The population generations are also compared.

### Population Growth

Population growth is an important determinant of housing demand over time. If other things remain the same, the greater the population growth, the more housing is needed. Figure 7 shows the annual population growth in the Toronto CMA and the Ottawa CMA between 2001 and 2021.



### Highlights

- While the shape of the population growth profiles was similar for the two CMAs between 2001 and 2022, growth in the Ottawa CMA was relatively slower than in Toronto for most years<sup>15</sup>; and
- Ottawa's relative population growth lagged in Toronto from 2001 to 2014.

A relatively more robust population growth in persons in the Toronto CMA should be reflected in higher demand for housing (new and existing combined) than in Ottawa. Figure 3 shows Ottawa sales lagged in Toronto sales from 2001 to 2017.

<sup>15</sup> The City of Ottawa accounted for almost all its CMA growth in the first decade but gradually slipped to about 80% of the growth in 2016-2021 (not shown).

## Population Growth by Age Group

Figure 8 shows the 2021 population age distribution segmented by generations for the two CMAs. Age is important for housing demand since household formation rates and preferences vary by age group. Persons in their 20s and 30s primarily form households.

Figure 8: Population by Generation Segment, Toronto and Ottawa CMAs, 2021					
Generation	Age Group	Toronto CMA		Ottawa CMA	
		Persons (000s)	%	Persons (000s)	%
Alpha	People aged 8 or younger (born between 2013 and 2021)	615	10%	119	11%
Z	People aged 9 to 24 (born between 1997 and 2012)	1,126	18%	210	19%
Millennial	People aged 25 to 40 (born between 1981 and 1996)	1,378	22%	234	21%
X	People aged 41 to 55 (born between 1966 and 1980)	1,261	20%	221	20%
Baby Boomer	People aged 56 to 75 (born between 1946 and 1965)	1,388	22%	267	24%
Silent	People aged 94 or older (born before 1928) and interwar: people aged 76 to 93 (born between 1928 and 1945)	435	7%	84	7%
Total		6,202	100%	1135	100%

Source: CUR, based on data from Statistics Canada

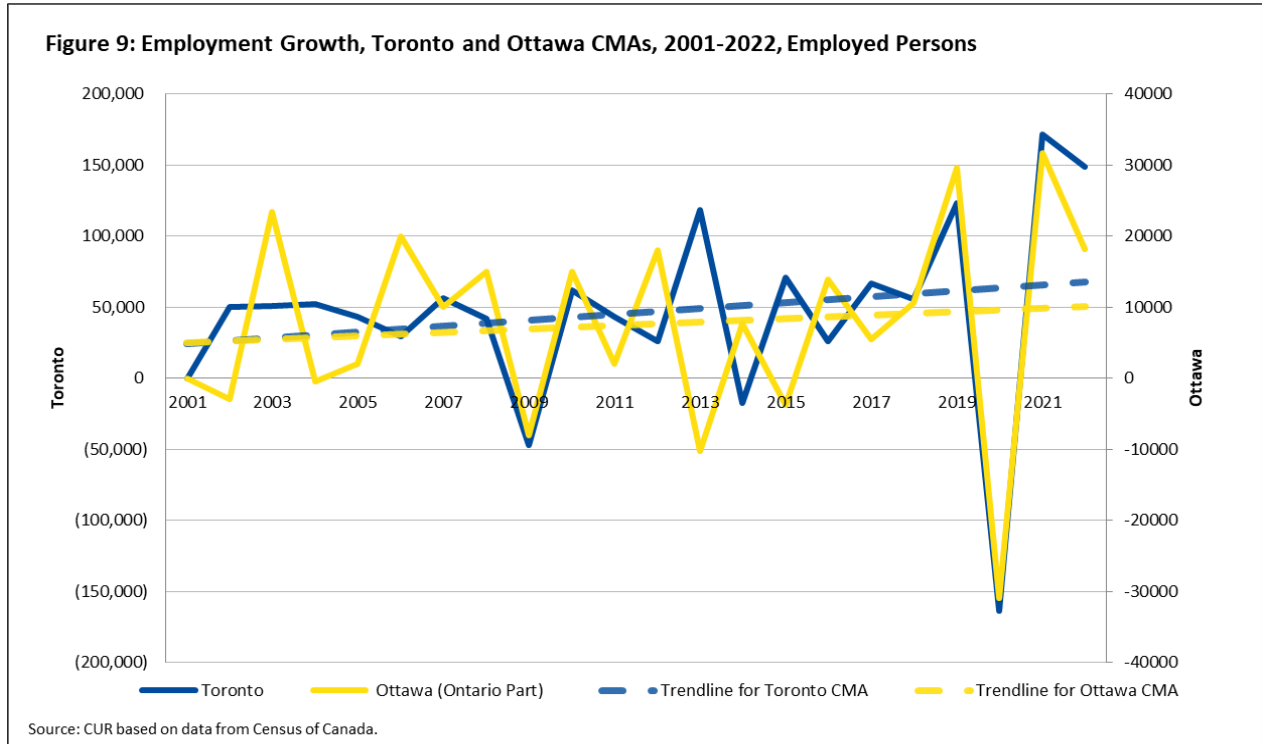
### Highlights:

- The split in population by generation is comparable in the two CMAs;
- The baby boom generation is the largest in both CMAs; and
- The three generations following the baby boomers – Generation X, millennials, and Generation Z – are all about the same in size in terms of percentage of the total population.

The impact on housing demand should be about the same, given the similarity of age distributions in the two CMAs.

## Employment Growth

The growth in jobs is another indicator of demand for housing. People working and earning income are more likely to be in a position to buy a home than those who are not. Figure 9 shows the annual average job creation in the two CMAs.



### Highlights:

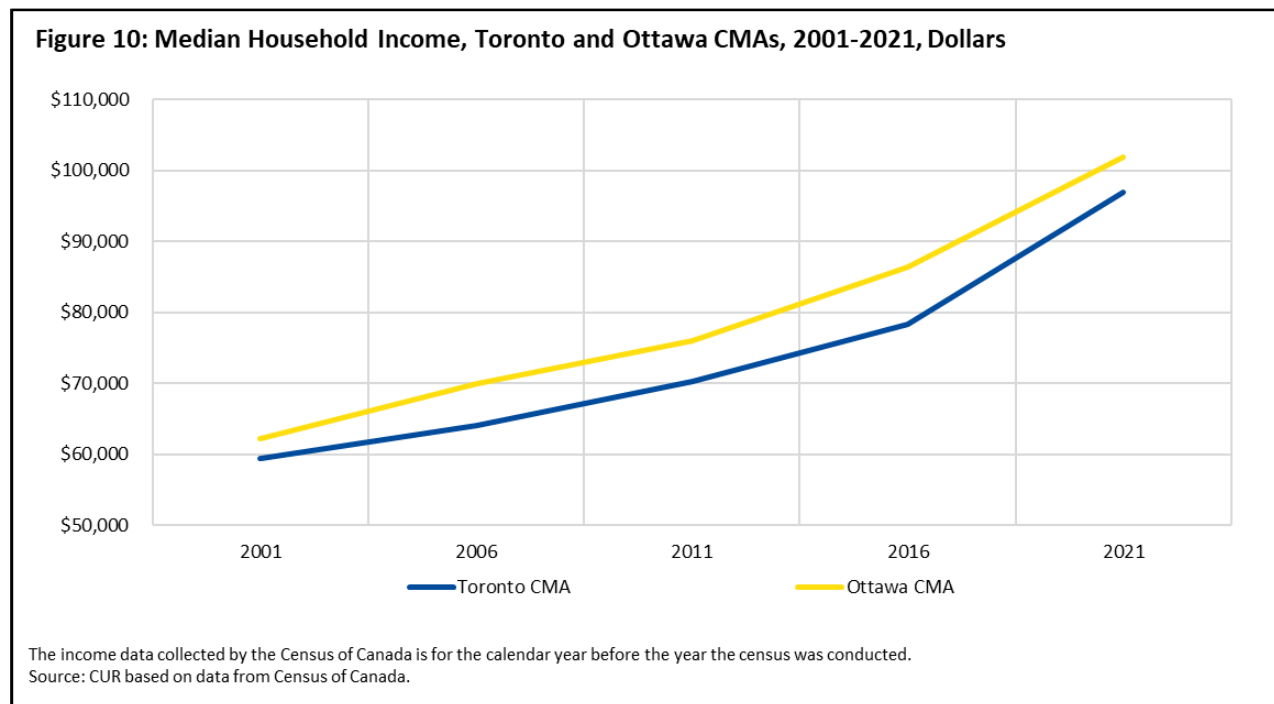
- Both CMAs had similar growth profiles in employment between 2007 and 2021; and
- The average annual growth in relative terms was quite close.

A comparison of employment growth with affordability measures suggests the contribution of employment in the two CMAs was similar over 2001-2022.



## Income Growth

Figure 10 presents the median household income for the two CMAs as reported in the past five Censuses of Canada (2001 to 2021).<sup>16</sup>



### Highlights:

- Median household incomes are comparable in the CMAs between 2001 and 2021;
- Both saw a rise in median income over the five census years from around \$60,000 in 2001 to about \$100,000 in 2021; and
- Median incomes remained slightly higher (four to five percent) in the Ottawa CMA than in Toronto.

However, a difference in median incomes does not contribute to explaining the widening gap in ownership affordability between the Toronto and Ottawa CMAs.

### Summary: Demand Factors

Demand factors are not correlated with the differing affordability trends observed in the two CMAs since the mid-1980s. Employment and income trends were about the same in the two CMAs. Therefore, slower population growth in the Ottawa CMA for much of the period is one explanatory variable for Toronto's better relative sales performance.

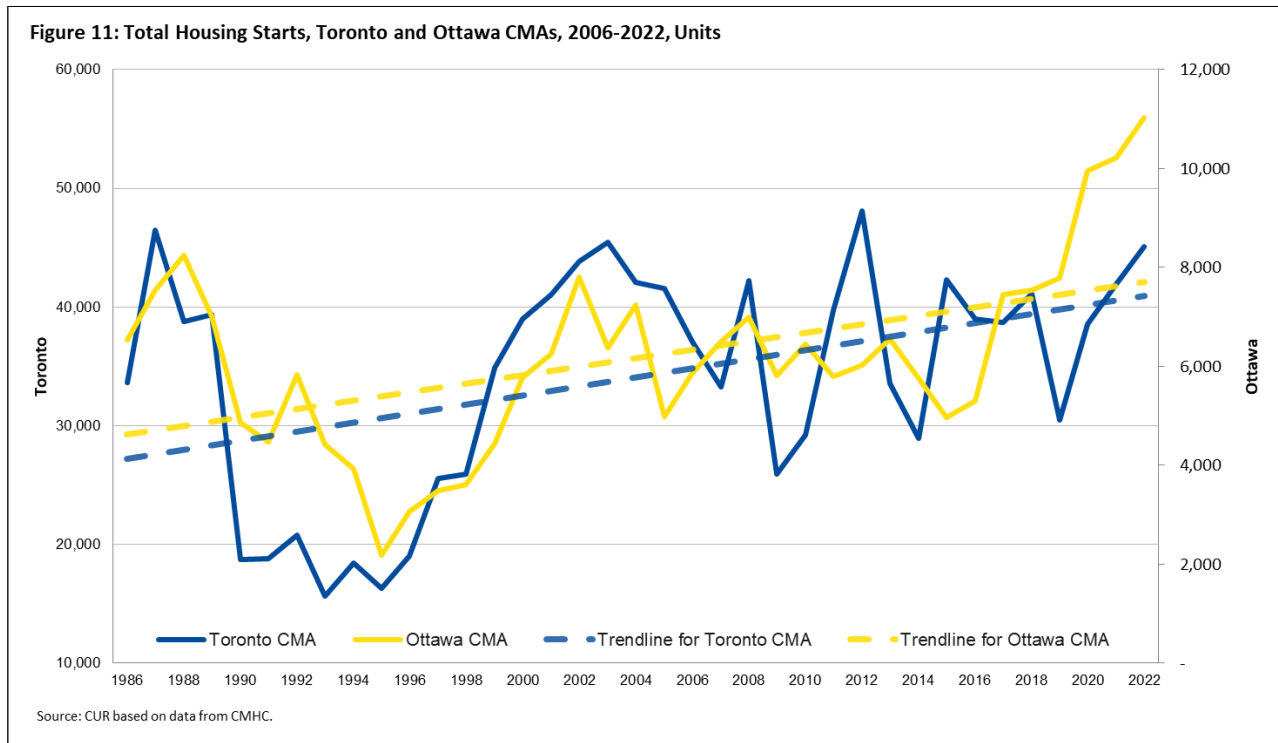
<sup>16</sup> The quinquennial Census of Canada collects income data for the calendar year prior to the year the census is conducted.

## A Comparison of New Housing Supply

This section examines the supply of new housing utilizing housing starts data from CMHC. While all types of housing starts are reviewed from 1986 to 2022, the focus is on ground-related starts and component types – single-detached, semi-detached and townhouse dwelling units.

### Total Starts

Total starts for the Toronto and Ottawa CMAs for 1987-2022 are presented in Figure 11.

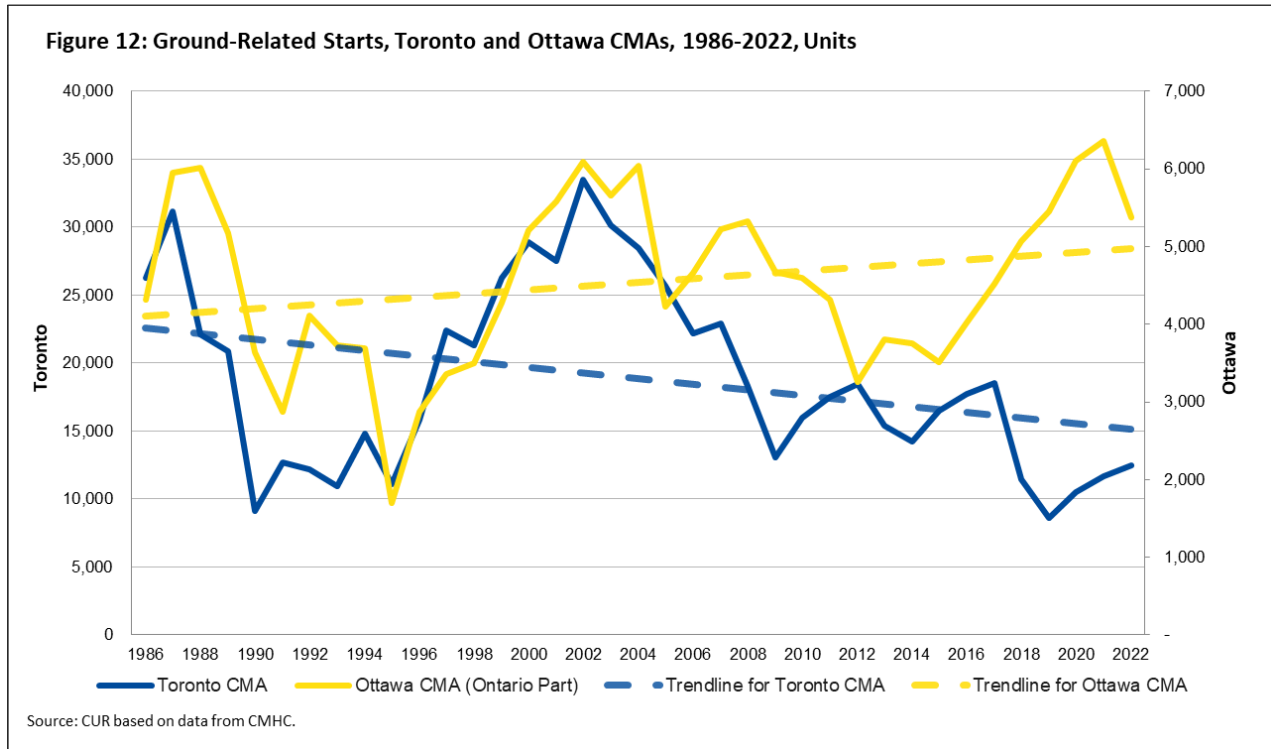


### Highlights:

- Following the recession of the early 1990s, starts of new housing units picked up in the latter half of the 1990s, peaking in the early 2000s in both CMAs, with the recovery more pronounced in the Toronto CMA;
- Toronto starts generally outpaced Ottawa from 1995 to 2008;
- Starts were relatively similar in both CMAs from 2009 to 2021, though Toronto exhibited more volatility; and
- During 2020-2022, Ottawa surpassed Toronto in starts when adjusted for the size difference of the two CMAs.

## Ground-Related Starts

Figure 12 presents annual ground-related housing starts – single-detached, semi-detached and townhouses.



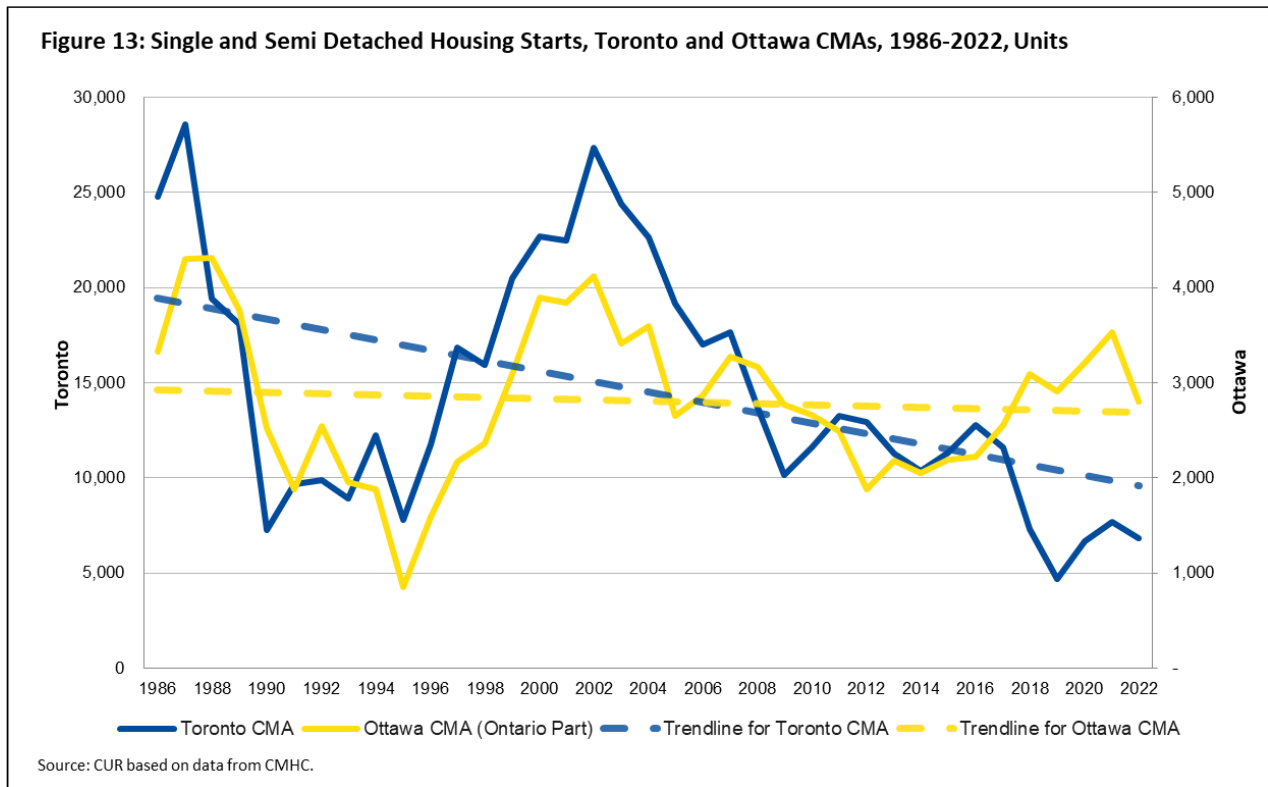
### Highlights:

- While relative ground-related starts were about the same at the beginning of the 2000s in the two CMAs, their paths diverged strikingly in subsequent years;
- Ground-related starts in Toronto trended down through 2002-2022;
- These starts also moved downward in Ottawa to 2012 but maintained a relatively high level; and
- For 2016-2022, Ottawa ground-related starts surged while Toronto starts trended lower.

Housing becomes less affordable when demand exceeds supply and prices rise. Housing preferences and changing population age composition generated a robust demand for ground-related homes in both CMAs. However, the relative production of new ground-related homes lagged in Toronto by a considerable margin, contributing to an affordability deterioration compared to Ottawa.

## Single-Detached and Semi-Detached House Starts

Figure 13 separates single-detached and semi-detached house starts from townhouses.



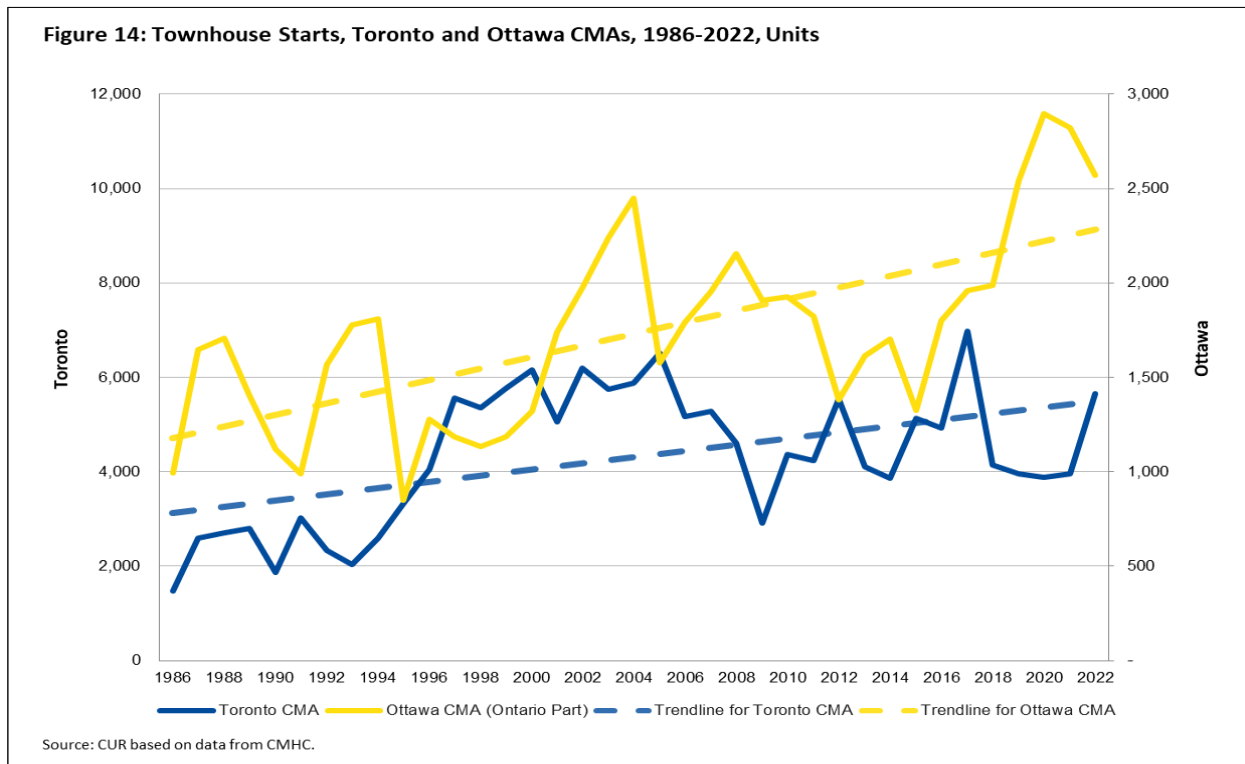
### Highlights:

- Toronto’s single-detached and semi-detached starts relative performance exceeded Ottawa’s in the first half of the 2000s but underperformed in recent years; and
- Toronto’s starts trended downward throughout 2001-22;
- Ottawa’s starts of these types performed equal or better than Toronto’s from 2007 to 2022; and
- During the last five years, Ottawa’s single and semi-detached starts surged while Toronto’s starts declined.

The diverging performance for single- and semi-detached starts in the two CMAs is surprising given the similar demand and existing housing market factors.

## Townhouse Starts

Figure 14 presents the townhouse component of ground-related housing in the two CMAs.



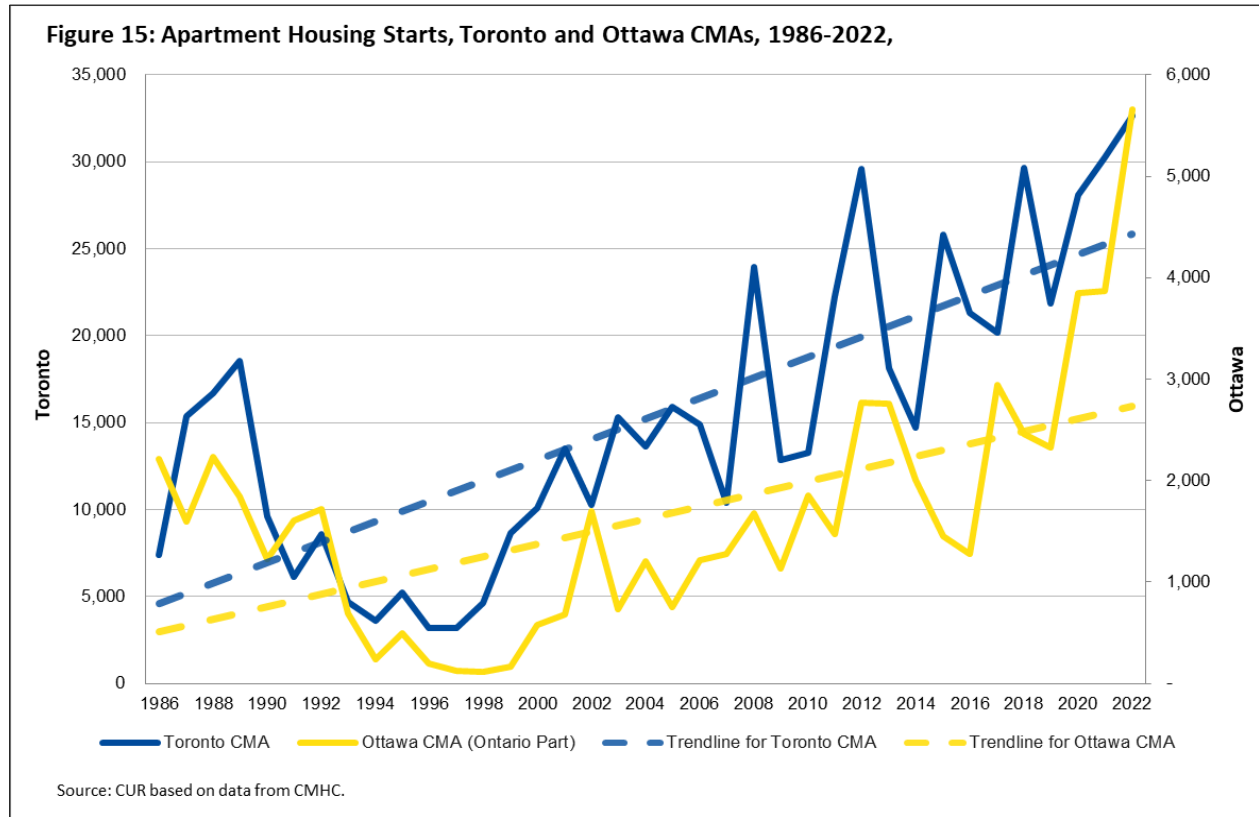
### Highlights

- Townhouses have been a relatively more important source of new housing in Ottawa since the mid-1980s;
- From the latter 1990s onward, townhouse starts were remarkably flat in the Toronto CMA;
- In contrast, the trend in Ottawa starts since the mid-1990s has been upward but with volatility; and
- The differential between townhouse starts accelerated in 2016, with Ottawa surging over the next five years.

The relative experience with townhouse starts is the reverse of what would be expected given the behaviour of affordability in the two CMAs, especially since the mid-2000s. With declining affordability affecting the production of new single- and semi-detached houses in Toronto, the expectation would be for the more affordable townhouses to increase in significance in Toronto compared to Ottawa.

## Apartment Starts

Figure 15 presents data on annual apartment starts in the two CMAs. Apartments include rental and condominium tenures. Stacked townhouses are classed as apartments in the CMHC starts data.



### Highlights:

- Toronto has recorded relatively more apartment starts than Ottawa from 1986 to 2022, except for twice - 1992-1993 and 2022; and
- Both Toronto and Ottawa had upward trends in apartment starts over 1986 to 2022.

The fact that Toronto's long-term trend towards more apartment starts was more pronounced than Ottawa's is unsurprising. The widening affordability gap for single-detached houses was one likely contributor.

### Summary: Supply Factors

The most apparent difference in new housing supply between the two CMAs is the diverging trends in ground-related starts since 2007, with Ottawa outpacing Toronto in relative terms. The gap widened since 2016 when Toronto's ground-related starts fell and Ottawa's starts surged.

Interestingly, the strength in ground-related starts in Ottawa was largely townhouses. From a land economics perspective, one would have expected Toronto's significant decline in single-detached

affordability to have caused an upswing in townhouse starts as they are more affordable than single- and semi-detached homes.

Both CMAs had similar patterns in apartment starts, with Toronto having relatively more starts.

## **Short-Term Land Inventory for Ground-Related Housing**

Short-term land consists of serviced or readily serviceable unbuilt land in registered subdivision plans, draft-approved subdivision plans, and sites suitably zoned to facilitate residential intensification.<sup>17</sup> This definition is based on Policy 1.4.1b) of the **Provincial Policy Statement, 2020**. Short-term land inventory is a proxy for shovel-ready sites.

Empirical data show that most housing built on greenfield sites consists of ground-related housing types – single and semi-detached houses and townhouses. In contrast, built-up areas are most likely to have apartments built through redevelopment or intensification. The short-term land inventory data available is mainly for greenfield lands.

The **Provincial Policy Statement** recognizes the importance of municipalities maintaining a short-term inventory to provide competition, deal with contingencies, and accommodate expected demand. Municipalities are required to maintain a minimum of a four-year supply of short-term land, assuming annual monitoring of the adequacy of the inventory.

The availability of historical inventory data on short-term ground-related housing land differs between the CMAs. The City of Ottawa and its predecessor, the Region of Ottawa-Carleton, released an annual survey of greenfield land by planning status and housing type. The land inventory data are for the City of Ottawa only. The annual inventory of short-term land from 2001 to 2021 has been tabulated.<sup>18</sup>

The Toronto CMA's short-term land residential inventory database is much less copious. From 1993 to 2003, CMHC and Ontario's Ministry of Municipal Affairs commissioned a residential land inventory survey of the Greater Toronto Area (GTA) for several years.<sup>19</sup> Only five of the eight surveys were found. The only land inventory available since the survey is a March 2023 survey conducted by the Regional Planning Commissioners of Ontario.<sup>20</sup> The GTA plus Hamilton's data

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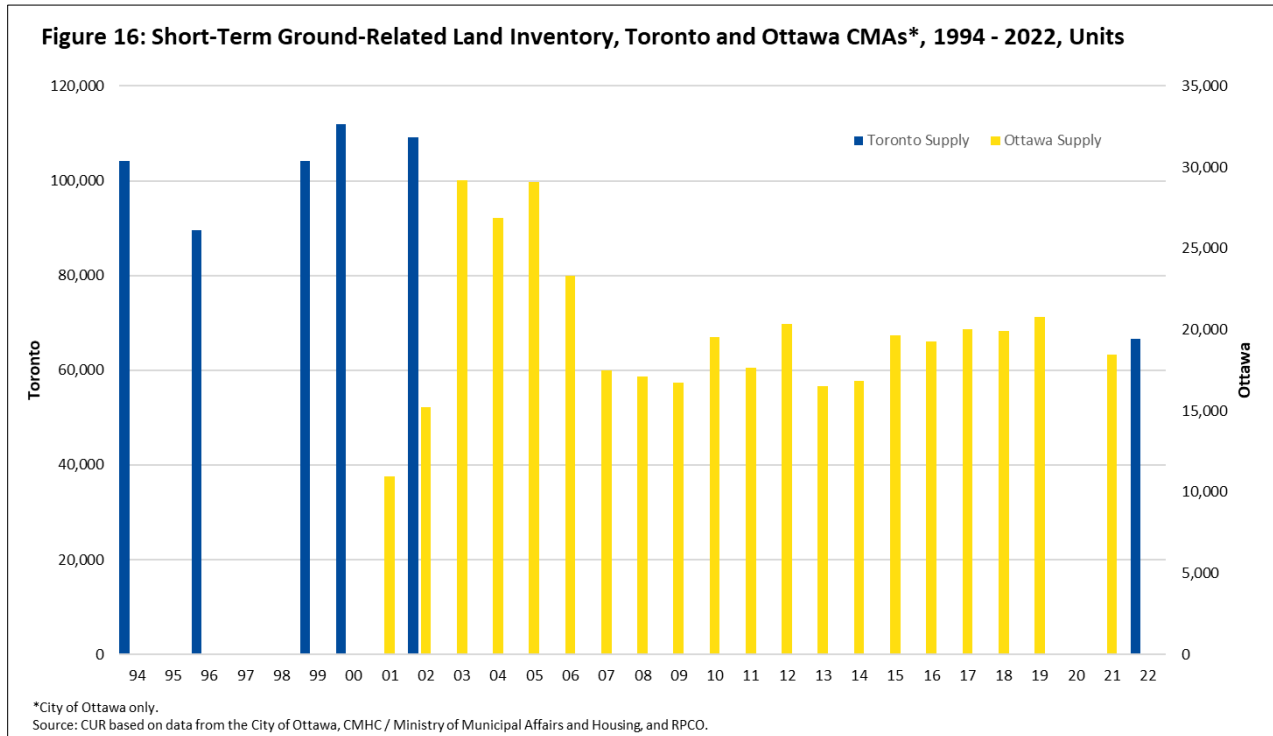
<sup>17</sup> In a recent CUR report, we refer to short-term land as shovel-ready sites. See Frank Clayton and David Amborski, **Expanding Housing Supply and Improving Housing Affordability in the GGH Are Pipedreams Without an Ample Inventory of Shovel-Ready Sites**. CUR. May 25, 2023.

<sup>18</sup> The City of Ottawa (prior to 2001 the Region of Ottawa-Carleton) undertook an annual Vacant Urban Residential Land Survey from 1982 to 2019 with data for calendar years. With the adoption of a new Official Plan in May 2020, the city changed the contents and the date of the annual survey. The publication is now called Greenfield Residential Land Survey and the survey released in September 2022 applied to the land supply as of July 1, 2021.

<sup>19</sup> According to the last inventory survey conducted during the first quarter of 2003 the data are based on municipal records as of January 1, 2003. The figures here treat the January 1 data as relating to December 31 of the preceding year. Surveys were completed for eight years out of ten (all years except 1999 and 2002). See CMHC and Ministry of Municipal Affairs and Housing. "The 2003 GTA Residential Land Survey."

<sup>20</sup> Regional Planning Commissioners of Ontario, "News Release and Media Package." Match 7, 2023. The media package contains high-level data only provided by individual municipalities. It is not possible to judge the accuracy

applies to December 31, 2022. Figure 16 provides the available annual data on the ground-related short-term land inventory for the Ottawa and Toronto CMAs for 1994-2022.



### Highlights:

- The City of Ottawa’s short-term land inventory increased rapidly from 11,000 units in 2001 to 29,000 units in 2003. It remained high from 2004 to 2006 before declining and stabilizing in the 16,000 to 20,500 unit range from 2007 to mid-2021;
- All that can be said about the Toronto CMA’s short-term land inventory is that it climbed from about 90,000 units in the mid-1990s to the 103,000- 110,000-unit range in the early 2000s. The inventory in 2022 was much lower – about 65,000 units. No inventory data are available for the years between 2002 and 2022;
- Both CMAs had elevated ground-related housing starts in the early 2000s when their short-term land inventories peaked;
- The marked rise in Ottawa’s short-term land inventory between 2001 and 2003 is notable since this was a time of transition from two-tier municipal governance in the region of Ottawa-Carleton to the single-tier City of Ottawa; and
- The similar relative size of the short-term land inventory in 2021/2022 is unexpected.

of the high-level estimates without reviewing the individual municipality data, which the sponsors of the RPCO database refused to provide.



## Summary: Short-Term Land Inventories

Designated, zoned, and serviced land is an indispensable component of new housing production. It is the only significant new housing input where the marketplace does not determine supply. Supply is determined through a political process. Ottawa has done an exemplary job of measuring its residential land supply by unit, type, planning stage and location and relating this supply to expected demand. Sadly, this comprehensive information has not been compiled for the Toronto CMA during the past two decades.

## Short-Term Residential Land Inventory and Starts

### Ottawa

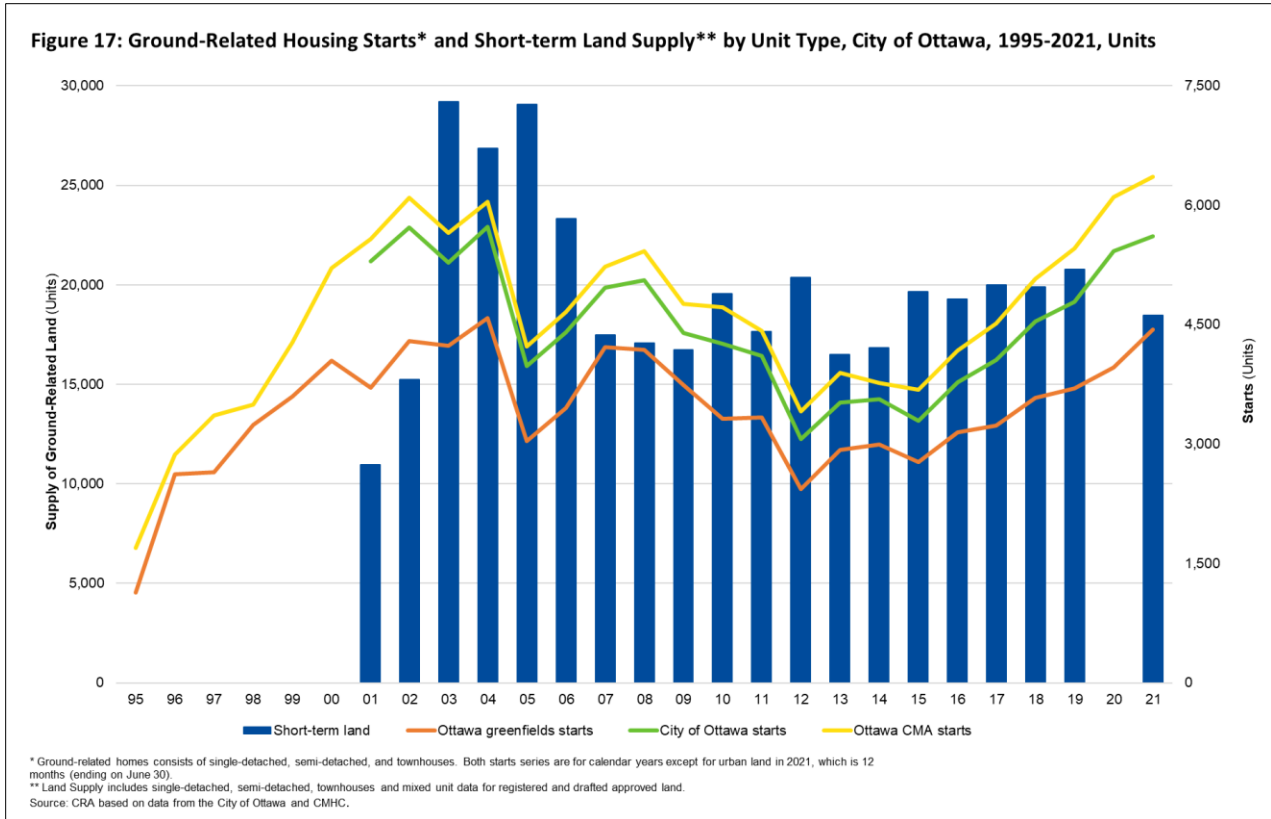
Figure 17 presents the annual ground-related housing starts and the short-term land inventory for Ottawa. Before examining the figure, the data series and corresponding geographical areas for Ottawa should be discussed:

- Ground-related vacant urban land inventory is the short-term vacant land outside the City of Ottawa’s built-up area (i.e., greenfields);
- Ground-related housing starts on vacant urban land – these are the starts on the city’s urban land inventory;
- Ground-related housing starts in the City of Ottawa – this series shows that there have been ground-related starts in parts of the city not considered as vacant urban land; and
- Ground-related starts in the Ottawa CMA – a small but growing percentage of CMA starts are occurring beyond Ottawa’s boundaries. The land inventory excludes CMA lands outside the City of Ottawa.

The scales of the land bars are such that they are four times the starts. Under provincial direction, the minimum short-term land inventory municipalities must maintain is four years, assuming annual monitoring of the inventory’s adequacy.<sup>21</sup>

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<sup>21</sup> The rationale and source of the minimum short-term land supply specified in the **Provincial Policy Statement** is not known. It was introduced in the mid 1990s. There is no indication that it is based upon empirical research into the years’ inventory needed to create a balanced market and mitigate possible upward price pressures due to supply shortage. CUR’s rough rule of thumb suggests keeping housing prices rising more than the inflation rate, the minimum years’ supply of short-term land should fall in the 4 to 6 year range. See Frank Clayton and Nicola Sharp. “Greater Golden Horseshoe Short-Term Residential Land Adequacy Report Series.” CUR, March 2, 2017. P.3.



**Highlights:**

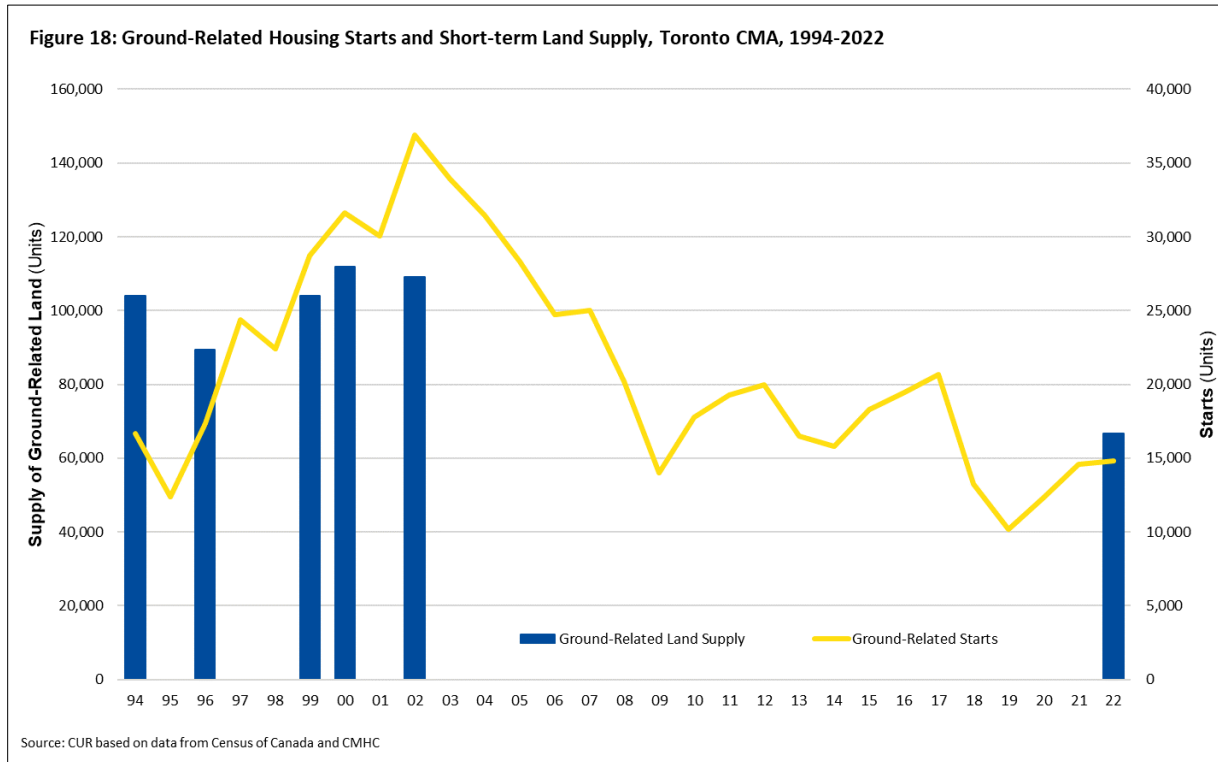
- The City of Ottawa has had an ample inventory of urban short-term ground-related land compared to urban area starts – comfortably above the **Provincial Policy Statement’s** minimum of four years with annual monitoring; and
- Thus, the city had the ready-to-go land to accommodate an upswing in ground-related housing starts over the past decade.

**Summary: Ottawa’s Short-Term Land Inventory and Starts**

Combined with starts occurring in other parts of the city and the CMA, it strongly suggests that the urban land inventory has not constrained new ground-related housing supply in Ottawa with negative repercussions on affordability over the 2001-2021 period as a whole with the exception of 2021 when demand surged.

## Toronto

Figure 18 compares the incomplete dataset on short-term land supply in the Toronto CMA with ground-related housing starts.



### Highlights:

- Ground-related housing starts were elevated in the early 2000s as was the supply of short-term land in the Toronto CMA;
- Ground-related starts then trended downward over the next two decades. It is likely that the supply of ground-related land also declined over time, but this cannot be ascertained as there is no land inventory data; and
- Ground-related starts bottomed in 2019, increasing modestly over the next three years.

### Summary: Toronto's Short-Term Land Inventory and Starts

Toronto's short-term land inventory in 2022 appeared adequate to accommodate the depressed level of ground-related starts that occurred. However, the lengthy decline in the affordability of MLS resale single- and semi-detached housing indicates that the supply of new ground-related homes fell short of demand.

## **Summary of Findings**

The hypothesis examined is that housing will be less affordable in areas where the inventory of registered and draft-approved subdivision land serviced, or readily serviceable with critical infrastructure like sewer and water, is more restricted and less responsive to market forces than when the inventory is more plentiful and responsive, other things being equal.

The paper examines the following for the Toronto and Ottawa CMAs from the early 2000s to the end of 2022:

- Comparison of existing housing market conditions;
- Comparison of housing demand factors;
- Comparison of housing supply factors;
- Comparison of short-term residential land inventories; and
- Comparison of new housing production and the inventories of short-term land.

### **Ownership Housing Affordability**

In the mid-1980s, affordability in Toronto and Ottawa was about the same. The market dynamics in the two metropolitan regions diverged in the late 80s and continue to the present. Not only has housing affordability been better in Ottawa than in Toronto, but the fluctuations in affordability have also been less pronounced in Ottawa.

### **Existing Housing Market Conditions**

As expected, there is a similarity between existing MLS housing market prices and housing affordability over 2001-2022. Average prices and interest rates are prime inputs into RBC's affordability measure. A downward drift in mortgage interest rates from the early 1990s to 2021 supported housing and rising average prices. Only in 2022 did rising interest rates dampen sales by significantly reducing home purchase affordability. Since median incomes change gradually, the variations in affordability since 2001 are essentially the product of price changes.

Surprisingly, the long-term trends in MLS sales and the MLS sales-to-new-listing ratios in the two CMAs did not favour Toronto more over Ottawa between 2001 and 2022, given the much more sizable increase in average housing prices in Toronto.

### **Housing Demand Factors**

Demand factors are not correlated with the differing affordability trends observed in the two CMAs since the mid-1980s. Employment and income trends were about the same in the two CMAs. Slower population growth in the Ottawa CMA for much of the period is one explanatory variable for Toronto's better relative sales performance.

## Housing Supply Factors

The most apparent difference in new housing supply between the two CMAs is the diverging trends since 2007 in ground-related starts, with Ottawa outpacing Toronto in relative terms. The gap widened since 2016 when Toronto starts fell and Ottawa starts surged.

Interestingly, the strength in ground-related starts in Ottawa was largely townhouses. From a land economics perspective, one would have expected Toronto's significant decline in single-detached affordability to have caused an upswing in townhouse starts as they are more affordable than single- and semi-detached homes.

Both CMAs had similar patterns in apartment starts, with Toronto having relatively more starts.

## Inventory of Short-Term Land

Designated, zoned, and serviced land is an indispensable component of new housing production. It is the only significant new housing input where the marketplace does not determine supply. Supply is determined through a political process. Ottawa has done an exemplary job of measuring its residential land supply by unit, type, planning stage and location and relating this supply to expected demand. Sadly, this comprehensive information has not been compiled for the Toronto CMA during the past two decades.

## New Housing Production and the Inventory of Short-Term Land

Combined with starts occurring in other parts of the city and the CMA, it strongly suggests that the urban land inventory has not constrained new ground-related housing supply in Ottawa with negative repercussions on affordability over the 2001-2021 period as a whole with the exception of 2021 when demand surged.

Toronto's short-term land inventory in 2022 appeared adequate to accommodate the depressed level of ground-related starts that occurred. However, the lengthy decline in the affordability of MLS resale single- and semi-detached housing indicates that the supply of new ground-related homes fell short of demand.

## Conclusion and Recommendation

There is a growing awareness that an inverse relationship exists between housing prices and the characteristics of the land use planning framework. The paper examines the roles of demographic, economic, and housing market factors in the increasing affordability gap between the Toronto and Ottawa CMAs with the influence of the planning systems being determined residually.

It is concluded that the widening affordability gap is most likely due to:

- Municipal and planning fragmentation in metropolitan Toronto versus a single dominant municipality in metropolitan Ottawa; and
- The Province's imposition of additional planning layers on municipalities in the Greater Golden Horseshoe but not metro Ottawa (i.e., the **Growth Plan for the Greater Golden Horseshoe**, the **Greenbelt Act**).

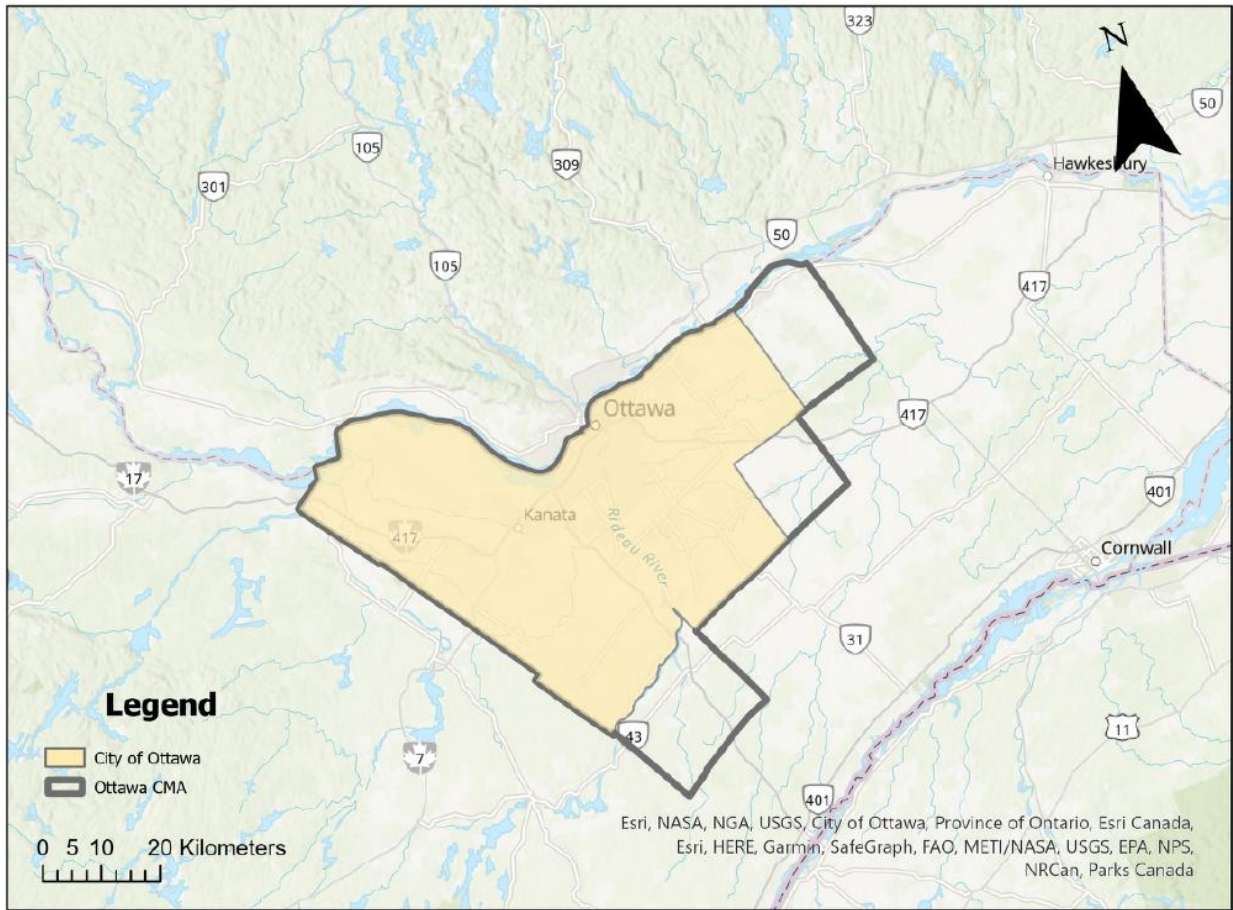
The research supports undertaking of a more in-depth analysis of the impact of the land use planning regimes on short-term land inventories and new ground-related housing production in the two metropolitan areas to better understand the relationship between these variables and their implications for housing affordability.

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## Appendix: Maps for Toronto and Ottawa CMAs, 2021

Map showing the geographical boundaries of the Ottawa CMA and City of Ottawa.





Map showing the geographical boundaries of the Toronto CMA and City of Toronto.

