

Priced Out: Understanding the factors affecting home prices in the GTA Cherise Burda

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Priced Out:

Understanding the factors affecting home prices in the GTA

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Executive Summary

Royal Bank of Canada (RBC) and the Pembina Institute's *Home Location Study* released last year found that over 80% of Greater Toronto Area (GTA) residents would give up a large home and yard to live in a "location-efficient" neighbourhood that is transit-friendly, walkable and offers shorter commute times. However, more than 70% of residents in the GTA live where they do because of affordability rather than preference. Households are choosing car-dependent neighbourhoods mostly because of prices rather than a preference for the location.

Priced Out is a follow-up study researched and written by the Pembina Institute, co-published by RBC, that explores the factors contributing to rising home prices in the GTA, and how homebuyers are being "priced out" of location-efficient options.

Findings

Factors that have impacted home prices in Canada over the past decade include a strong economy, low interest rates and favourable mortgage insurance rules. These factors have increased the demand for homes and driven up prices across Canada, including in the GTA.

Prices in the GTA have risen steadily and consistently, paralleling the national trend, but without the sharp spikes witnessed in cities such as Calgary and Vancouver. Regionally, the greatest influence on GTA home prices is the limited supply of housing stock, such as single-family homes, in established and location-efficient neighbourhoods in the City of Toronto and in other urban/suburban locations in the GTA. Demand for single-family homes in the City of Toronto and the municipalities that border Toronto has outstripped supply, driving up prices for these homes.

Due to the relative scarcity of affordable and location-efficient single-family houses, demand has shifted to more affordable multi-unit homes for homebuyers and renters wanting to live in established neighbourhoods.

Key insights are as follows:

- 1. There is no shortage of land throughout the GTA to build single-family homes for decades to come, but this land is predominantly located far from the City of Toronto and other established centres of employment.
- 2. There is limited supply of land to build single-family homes in established, location-efficient neighbourhoods where people want to live; therefore home prices have increased and will continue to rise in these locations.
- 3. Due to scarcity of affordable single-family housing stock in established location-efficient neighbourhoods, demand has shifted to comparatively more affordable multi-unit homes, and prices have risen accordingly. Many homebuyers are being "priced out" of established neighbourhoods and are faced with a trade-off: condominium style living in transit-accessible neighbourhoods or owning a single-family home located in car-dependent neighbourhoods.
- 4. There is no evidence that Provincial land use policies, including the Greenbelt Plan and the Growth Plan for the Greater Golden Horseshoe, restrict housing development and contribute to rising home prices.

Glossary of common terms

Home or **single family home:** A house that is usually occupied by just one household or family and consists of just one dwelling unit or suite. Single family home is often used synonymously with "single-detached house." In this report home refers to both fully detached and semi-detached houses, which are common in the GTA.

Detached house: A fully detached, free-standing residential dwelling. Single-detached houses do not share an inside wall with any other house or dwelling.

Semi-detached house: A free standing residential building with a pair of houses built side by side as units sharing a party wall and usually in such a way that each house's layout is a mirror image of its twin. Semi-detached houses differ from detached houses in that they have a front, rear and/or any one side detached from their attached unit.

Townhouses: Units mimicking a detached home that are attached in a multi-unit complex with their own outside door as opposed to an interior hallway access. They can also be "stacked" as vertical units, normally each with its own private entrance.

Row-housing: A row of identical or mirror-image ground related houses that share side-walls.

Multi-unit dwelling: A building comprised of multiple separate housing units for residential inhabitants. Multi-unit dwellings can be apartment buildings or condominiums. They can be low-rise or mid-rise buildings with a few storeys or multi-storied high-rises.

Ground-related dwellings or units: Single-detached, semi-detached, row and townhouses with at least three bedrooms and ground-based access.

Condominium building: Housing property where a specified part of a piece of real estate (usually of townhouses or multi-unit buildings) is individually owned, while common facilities are executed under legal rights associated with the individual ownership and controlled by the association of owners that jointly represent ownership of the whole piece.

Condo: Usually refers to the owned unit within a condominium building

Apartment building: Commonly connotes a building with multi-units for rental and owned by the building owner, and is not typically used for a condominium. Apartment buildings, like condos, can be low-, mid- or high-rise.

High-rise building: In the City of Toronto, a high-rise is 12 storeys and higher; however the definition of a high-rise building may vary by municipality.

Mid-rise building: The City of Toronto defines a mid-rise as a building between 4 and 11 storeys; however the definition of a mid-rise building may vary by municipality.

Low-rise building: In the City of Toronto a low-rise is under 4 storeys; however the definition of a low-rise building may vary by municipality.

Greater Toronto Area (GTA): The Greater Toronto Area is defined as the central city of Toronto and the four regional municipalities that surround it: Durham, Halton, Peel and York.

City of Toronto: An amalgamation of what used to be six distinct municipal entities — the borough of East York and the cities of Toronto, Etobicoke, Scarborough, York and North York.

Greater Golden Horseshoe (GGH): An urban region centred on the City of Toronto and stretching around the western end of Lake Ontario. The region covers approximately 3.2 million hectares or 12,355 square miles, and has a population (2011) of 8.76 million people or 68% of Ontario's population.

Greenfield land: Previously undeveloped land/land planned to be developed in rural, agriculture, natural or unused areas located outside of developed urban/suburban areas.

Introduction

The RBC-Pembina *Home Location Study* released in 2012 found that over 80% of GTA residents would give up a large house and yard to live in a "location-efficient" neighbourhood that is transit-friendly, walkable and offers shorter commute times.³

Location-efficient neighbourhoods can be either urban or suburban. They provide walkability to stores, restaurants and other amenities, convenient access to frequent rapid transit, reasonable commutes to work and opportunities to walk or cycle to various destinations. The trade-off is often living in a smaller house with a smaller lot or in a multi-unit dwelling rather than a single-family home.

In a neighbourhood or home that is not location-efficient, residents generally require a vehicle to get to most places, as there are no efficient options to travel to work or other destinations by any other means. If transit is available, it consists of infrequent buses in mixed traffic.

The RBC-Pembina *Home Location Study* found that 70% of residents in the GTA live where they do because of affordability, and that households are being driven to car-dependent locations mostly because of price rather than neighbourhood preference.

Examining the factors that price out homebuyers

The growing number of homebuyers who live far from where they work, in car-dependent neighbourhoods,

results in longer commutes and contributes to traffic congestion and poor air quality. This hampers the region's economic success⁴ and reduces its quality of life.

More location-efficient living would contribute positively to the environment and the economy, while further supporting the province's land use and transit-planning objectives. But in recent years, home prices in these locations in the GTA⁵ have put these choices out of reach for many homebuyers.

Priced Out is a follow-up study by RBC and Pembina designed to explore the factors that have been contributing to rising home prices in the GTA.

Location-efficient development

- Close to workplaces, amenities and urban hubs
- Access to rapid transit
- Shorter commute times
- Option to walk, cycle or take transit to destinations

Many factors enter the home-pricing equation, and no single factor can explain fluctuations in home prices. A careful review of academic and financial literature identified five key factors that are cited most often as affecting home prices in the GTA:

- a. Demographics
- b. The cost and accessibility of mortgages
- c. Construction and development costs
- d. Land availability and regulations
- e. Home location and housing stock

Priced Out examines each of these factors to understand their relative impact on home prices over time, comparing each factor geographically within the GTA with the same factors in other cities and against the broader national average. In particular, we seek to identify which factors may be pricing out homebuyers from location-efficient neighbourhoods.

The first chapter of the report provides an overview of how prices have changed over time in Canada as a whole and within the GTA. In the chapters that follow, we examine key factors that influence supply and demand, as well as the corresponding price changes, to gauge what is having greatest influence on rising home prices in the GTA. We are interested in how these factors interact, how development patterns impact home prices and also how home prices drive development.

City of Toronto versus the GTA

Throughout this report, there will be references to the City of Toronto and the GTA. The map below provides the geographic boundaries for both.



Figure 1. Map of the Greater Toronto Area, including the Regions of Halton, Peel, York and Durham and the City of Toronto⁶

The rising price of homes in the GTA

Housing prices in Canada have risen steadily over the last 30 years, with a dramatic rise in the last 10 years. The national trend is upward, but the largest price spikes are seen for individual cities rather than in the national average. This suggests that factors specific to each city or region cause discrete fluctuations. For example, following the relaxation of mortgage insurance rules in 2006, both Vancouver and Calgary experienced a sharp upward spike, followed by a downward spike after the recession. Meanwhile, prices in Toronto climbed more steadily and gradually. The price trends for each city are shown in Figure 2.

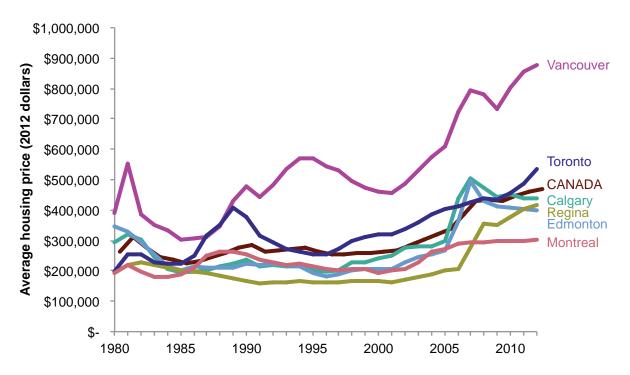


Figure 2: Average housing prices in Canada and in select cities

Calculated using data from the UBC Centre for Urban Economics and Real Estate and Statistics Canada⁷

In Calgary, other factors such as the energy boom were at play, and Calgary's price surge took place from 2006 to 2007. Prices in that market are just beginning to pick up following a slump between 2008 and 2011. In Vancouver, the confluence of a strong economy, a surge in offshore investment⁸ and the desirability of the city itself⁹ created a positive "hot market" that has inflated prices.

Despite the recent recession, housing prices in Canada continued to rise in all major cities. While the MLS housing price index, which measures price trends and price inflation/deflation in residential housing, rose faster in Toronto than in Calgary or Vancouver after 2008, prices in Toronto did not rise as much during the previous six years.

Figure 3 looks more closely at price trends within the GTA since 1996. York Region, Halton Region and the City of Toronto are the most expensive regions, all with steadily rising prices. The City of Toronto experienced the most noticeable decline in 2008, after which prices rose steadily.

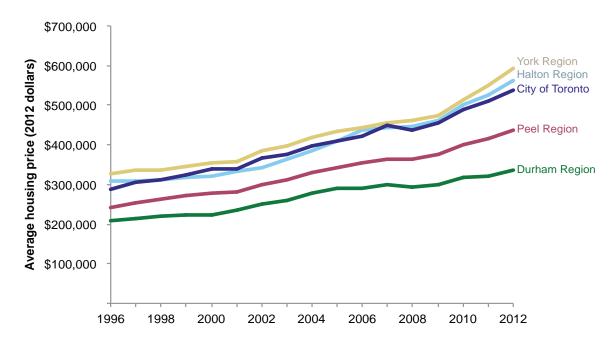


Figure 3. Average housing prices in GTA regions

Calculated using data from the Toronto Real Estate Board and Statistics Canada¹⁰

Figure 4 shows prices in 2012 for key municipalities in the GTA and for municipal districts within the City of Toronto. The highest-priced region for many years was central Toronto. It is made up of well-established neighbourhoods, served by higher-order transit. However, housing prices in central Toronto dipped following the recession in 2008, and two nearby municipalities became the highest-priced: Oakville, a higher-income municipality connected to Toronto by highway and GO train, and Richmond Hill, an established suburb close to Toronto and connected by commuter train.

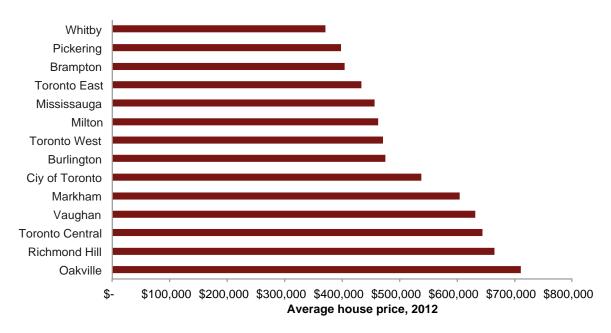


Figure 4. Average housing prices in GTA municipalities in 2012

Calculated using data from the Toronto Real Estate Board and Statistics Canada¹²

Factor 1: Real income and demographics

Demographic shifts and increases in income are well-recognized demand-side factors that influence long-term price trends in Canada and the GTA, but are not as strongly linked to medium-term and recent price fluctuations.¹³

Key findings

- Average real income in the GTA rose over the past three decades by 18% (in 2012 dollars), which tends to increase demand, but real home prices increased by 80% during the same time period.
- The price-to-income ratios in Canada and the GTA have increased most significantly over the past five years, suggesting that other medium- and short-term factors such as mortgage financing and population growth are impacting supply and demand and subsequently home prices.
- The composition of families and households in Toronto is shifting toward smaller households, families with fewer children and more people living alone. This is leading to demand for smaller houses and multi-unit dwellings.

Population

The GTA is one of the fastest-growing regions in North America. In 2011, the population of the GTA was 5,583,064, representing a percentage change of 9.2% from 2006. This compares to the national growth of 5.9% and to the average growth among all census metropolitan areas of 7.4%. Over the next 25 years, the population of the GTA is projected to increase by more than 44%. In the City of Toronto, projected demand for rental homes is expected to outpace supply, due to a growing proportion of young people, seniors and in-migration influencing where people choose to live and work.

Real income

After-tax income in Canada increased by 18% from 1980 to 2010 (in real 2012 dollars). However, housing prices increased 80% over the same period of time, with most of this increase occurring after 2000. This trend can be seen in Figure 5.

The ratio of the average house price to income in the GTA has increased from 4:1 to 6:1 over the last 10 years, suggesting that the upward pressure on housing prices is not caused by income alone. This ratio is also rising in other major Canadian cities and has varied between 3:1 and 6:1 over the past 30 years. The exception is Vancouver, where the ratio rose to 12:1 — the greatest gap between average income and housing prices in any Canadian city. The canadian city of the past 30 years are the ratio rose to 12:1 — the greatest gap between average income and housing prices in any Canadian city. The past 30 years are the past 30 years are the past 30 years.

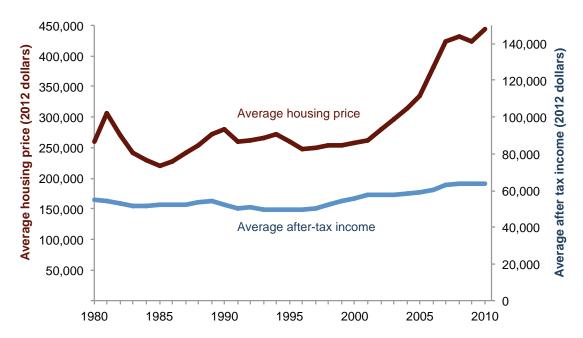


Figure 5: Average housing prices and average after-tax family income in Canada

Calculated using data from the UBC Centre for Urban Economics and Real Estate and Statistics Canada¹⁸

Figure 6 shows average after-tax income for Toronto, Calgary and Vancouver. From 1980 to 2010, income and housing prices have increased in all three cities, yet the relationship is not similar. Vancouver had the highest increase in housing prices and the lowest increase in income, whereas housing prices and income in Toronto and Calgary seem to be correlated, showing the same spikes and long-term trends.

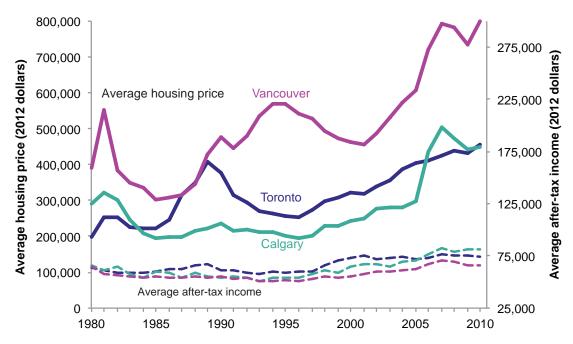


Figure 6. Average housing prices and real income in three Canadian cities

Calculated using data from the UBC Centre for Urban Economics and Real Estate and Statistics Canada¹⁹

Trends

Demographic trends in a region can also impact housing prices. As population increases, demand and competition for desirable housing increase, which can lead to increased prices for certain housing types (and reductions for those types in less demand).²⁰ In some cases, such as Calgary and Edmonton between 2005 and 2007, housing supply could not keep up with growing demand, and this caused a significant increase in home prices.²¹

Demographics and housing occupancy trends

The links between housing demand, prices and demographic changes are both complex and dynamic. People tend to demand one type of housing over another at different ages and stages in their lives. Thus, shifts in the age structure of Toronto's population influence the types of housing in demand over time.²²

The composition of families and households in the City of Toronto is shifting toward smaller households, families with fewer children and more people living alone. As of 2011, Toronto breaks down into 37.3% nonfamily households, 59.7% one-family households and 3.0% multiple-family households. From 2006 to 2011, the number of one-person households in Toronto increased by 12.1%, while larger households of four to five increased by 0.5%. The number of single-family households decreased from 2006 to 2011, while the number of multiple-family households almost tripled during that time period.

The number of families with children in the City of Toronto has declined slightly; from 2006 to 2011, the proportion of couples with children fell from 58.9% to 57.4%. For the rest of the GTA, a similar decline, from 67.1% to 66.0%, took place over the same period.²⁶

There is also a trend toward more families living in multi-unit buildings. High-rise apartments and condos suitable for families are being constructed at a low rate, which has implications for home prices.²⁷

The number of family households living in high-rise buildings in the City of Toronto increased by 6.7% or 23,905 households between 1996 and 2006.²⁸ Family households tend to demand housing units with three or more bedrooms.²⁹ Recent construction and the expected near-term supply may not be meeting this shift in demand: although six of every 10 new units built between 1996 and 2006 were in buildings with five or more storeys, only 4% of these high-rise units had three or more bedrooms.³⁰

Projected trends in the GTA

The GTA is one of the fastest-growing regions in North America; over the next 25 years, the population of the GTA is projected to increase by more than 44% — to 9.2 million people — accounting for more than 50% of Ontario's population.³¹ The GTA is expected to remain the region with the youngest age structure in the province, due to both immigration and positive natural increase.

The City of Toronto is forecasted to grow by over 500,000 people between 1996 and 2031. Between that time period, the number of households is projected to grow by 25%, and the demand for rental accommodation is expected to grow by almost 20%. Toronto's official plan therefore projects demand for rental households to increase while the share of rental tenure from all households will decline. This is due to an increase in certain age groups (young and senior) and higher rates of in-migrations with preference for rental properties.³²

Factor 2: The cost and accessibility of mortgages

According to many analysts, the increase in home prices in Canada — particularly in the 2000s — was significantly driven by lower mortgage interest rates and the increased accessibility of mortgages. ²⁹ Mortgage rates and lending rules have a clear influence on price fluctuations in the short and medium terms, and both factors have varied substantially in recent years.

Key findings

- Mortgage rates have declined significantly in Canada, from a peak of 18.5% in 1981 to 4.25%
 (posted) in 2012, with all-time lows occurring in 2005 and again in 2011. This has allowed more
 homebuyers to enter the market, driving up demand and prices.
- Lending rules became less restrictive from 2001–2008, which brought more homebuyers into the market and drove up demand and prices further.
- In 2006, maximum insurable mortgage amortization terms were briefly extended to 40 years, and the minimum down payment eligible for federal mortgage insurance was reduced from 5% to 0%. Interest-only mortgages also became eligible for insurance.
- Mortgage insurance rules were tightened after the global financial crisis in 2008. In particular, the government ended interest-only loans, raised down payments to 5% and reduced maximum amortization periods to 25 years.
- When the government began tightening rules after the global financial crisis, lenders responded with other initiatives to boost home sales.
- Sales of high-rise units and detached homes in the GTA were down in the first five months of 2013, reflecting lower demand, due in part to the tightened mortgage rules.
- Although the influence of mortgage accessibility on home prices is significant, it is by no means unique to the GTA.

Credit accessibility

Low mortgage interest rates and relaxed mortgage insurance rules allow for more homebuyers to enter the market. This drives up demand, and if supply does not rise to the same degree, home prices increase. A 2010 study demonstrated that more accessible credit drives up home prices also by providing an incentive for individuals and families to transition from renting to owning to take advantage of the more affordable and flexible borrowing terms.³³

Mortgage rates

Lower mortgage rates increase buying power because homebuyers can borrow a larger amount of money while making the same monthly payment. This puts upward pressure on home prices. Figure 7 illustrates the strong inverse relationship between interest rates and home prices.³⁴ The five-year posted mortgage rate reached a peak of 18.5% in 1981. It quickly dropped to 13.2% two years later, and to 11.2% in 1986. As posted mortgage rates declined to 4.25% in 2012, average national home prices rose in tandem, reaching an all-time high in 2012.

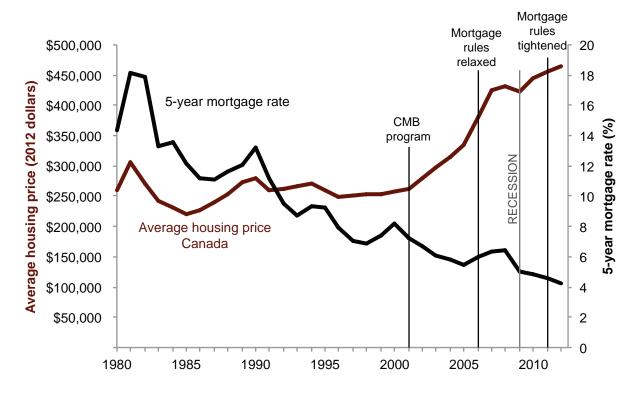


Figure 7. Mortgage rates and historical real average housing prices in Canada

Calculated using data from the UBC Centre for Urban Economics and Real Estate and Statistics Canada³⁵

Mortgage lending rules

Figure 7 also illustrates key changes to mortgage lending rules over time. The Canada Mortgage Bond (CMB) program was introduced in 2001 as a new funding channel for mortgage lenders. It ushered in a period of rapid growth in mortgage lending at the retail level. This played a role in putting upward pressure on real estate prices during the 2000s by substantially increasing access to mortgage credit. Increased credit means increased demand for housing, which often puts upward pressure on prices.

In 2006, mortgage insurance rules in Canada were relaxed further. For example, the allowable amortization term for mortgage insurance was extended to 40 years, and the minimum down payment eligible for federal mortgage insurance was reduced from 5% to 0%.³⁷ Interest-only mortgages also became eligible for insurance, and the additional fees associated with high loan-to-value ratio mortgages were eliminated.

The federal government also allowed new private companies to enter Canada's mortgage insurance market starting in 2006. To gain market share, these private insurers offered subprime³⁸ mortgages to potential homebuyers. To remain competitive, the CMHC, which insures mortgages in Canada, relaxed its insurance terms as well.³⁹ Mortgage credit and real estate prices increased in tandem.

Recession-induced, double-digit declines in residential property values in 2008 and 2009 were followed in late 2009 by a strong rebound. Home prices increased by 19% in the GTA over a single year, and by 17% nationally.

In 2008, when the global financial crisis began, the Canadian federal government announced measures intended to restrict mortgage lending.⁴⁰ In particular, interest-only mortgages would no longer be insured under the National Housing Act, the maximum insurable amortization term would be reduced from 40 to 35 years and the minimum down payment would be raised to 5%.⁴¹

Lenders responded by introducing initiatives to maintain home sales, such as options for cash-back mortgages and free down payments. ⁴² In early 2011, when the federal government limited CMHC guarantees for some home-equity lines of credit, private mortgage insurance companies stepped in to offer insurance for such loans. The result has been continued home sales and continuing price increases, following the substantial slowing in 2010. In 2012, the amortization period for a CMHC-insured mortgage was further shortened to 25 years. ⁴³

The GTA housing market cooled in 2012 and 2013, especially in the high-rise sector. Slower sales of high-rise units in the second half of 2012 reduced the number of new high-rise starts in the first quarter of 2013, and the average price of a condominium in the first quarter of 2013 was 0.7% lower than one year before. Sales of new, detached houses dropped slightly from previous years due to high prices. However, the average price of a detached house increased by 7% from 2012 to 2013, led by the sale of high-end houses.

Accessibility of mortgages in Canadian cities

Low interest rates and relaxed mortgage-lending rules result in higher demand and housing prices. This is particularly the case in less-affordable real estate markets with inelastic or fixed supply, such as single-family homes in the City of Toronto. 46 However, it is clear from looking at housing prices nationally and in other major cities (see Figure 8) that while mortgage accessibility significantly influences home prices, this effect is not unique to Toronto.

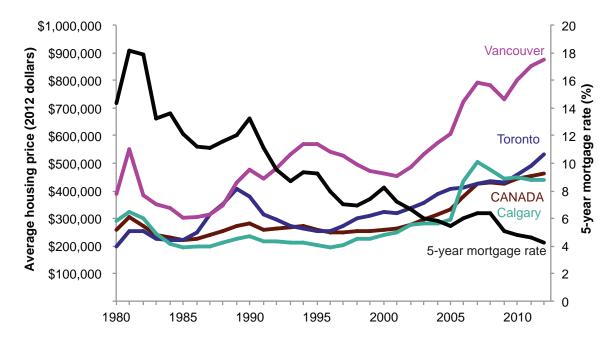


Figure 8. Mortgage rate and average housing prices in select Canadian cities

Calculated using data from the UBC Centre for Urban Economics and Real Estate and Statistics Canada⁴⁷

The negative correlation of interest rates with housing prices means that, for many homebuyers in the GTA, the actual costs of homeownership have not changed significantly. Despite housing being far more expensive today than in 1990, monthly carrying costs of an average GTA home are similar today to costs in 1990 (in real \$).⁴⁸

Factor 3: Construction and development costs

The costs of building a home — including materials, labour and development charges — have increased in the GTA, but are not a primary influence on relative home prices.

Key findings

- Material costs in Canada increased by an average of 11% each year from 1999–2007, and labour costs in the construction industry also increased.
- The cost of building a new house has not increased more rapidly in Toronto than in other major Canadian cities.
- Development charges in the GTA increased by anywhere from 63–236% from 1999–2010. However, the increase in these charges accounts for only a small fraction of the increase in home prices.

Cost of construction

Construction costs include materials and labour, the prices of which can vary as economies expand or contract. The costs of the labour and materials needed to build a new home play an obvious role in determining prices; international research shows that construction costs account for 50–60% of the final price of a new home. ⁴⁹ As labour and material costs increase, they put upward pressure on new home prices.

A number of studies confirm that increases in real housing prices are related to increases in construction costs, but more significantly related to other factors such as changes in population, real income and interest rates. The price of a home also reflects its physical characteristics. The number of bedrooms and bathrooms, the total area of living space, the quality of the home and the size of the garage all have implications for the cost of construction. The price of the garage all have implications for the cost of construction.

Recent trends in construction costs in Canada help explain some of the upward pressure on home prices. Material costs, which account for about 60% of the total cost of construction, increased by an average of 11% annually from 1999 to 2007. This increase was driven by a rise in demand for materials due to a residential construction boom that took place in Canada and the United States before the recession.

Figure 9 shows how the price indices for housing construction and land have changed over time. Land prices outpaced home prices in 1989, but have shown little growth overall since then. Since 1996, however, the price component attributed to the homes themselves has increased at a much higher rate than land prices.

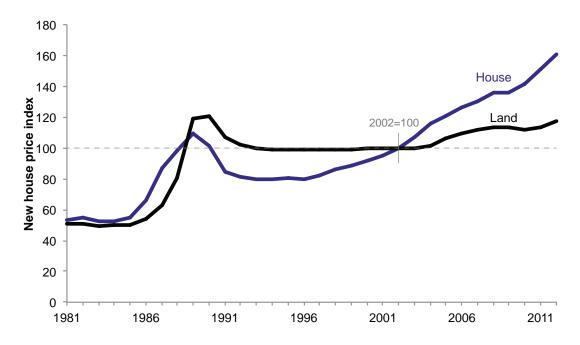


Figure 9. New housing price index in the Toronto CMA and Oshawa

Calculated using data from Statistics Canada⁵³

Increases in the cost of labour have also put upward pressure on home prices in Toronto and elsewhere, especially in recent years. From 2006 to 2012, the labour cost index was highest in Calgary and Vancouver, while Toronto was below the national average (see Figure 10).

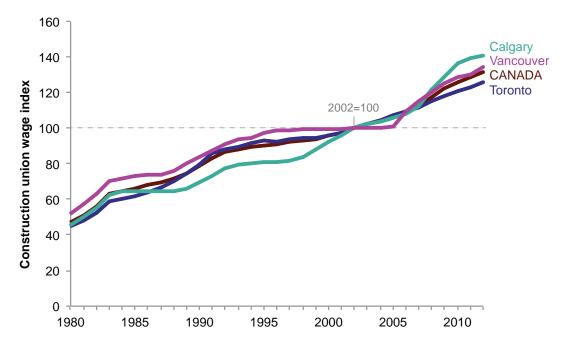


Figure 10. Construction union wage index

Calculated using data from Statistics Canada⁵⁴

Development charges

Municipalities are permitted to levy development charges on land development and redevelopment projects to help pay for the increased capital costs required to service growth.⁵⁵ On average, development charges in the GTA comprise about 7–8% of the average home price.⁵⁶

Although there has been considerable debate among economists over whether development charges are paid by landowners, developers or homebuyers (or some combination of the three), some studies have found that development charges are passed on to homebuyers in full, or nearly so.⁵⁷

Development charges in the GTA increased by anywhere from 63% to 236% between 1999 and 2010 (after correction for inflation). The greatest increase during that 11-year period was in Halton Hills, and the lowest was in Oshawa. Figure 11 shows the increase in development charges from 2004 to 2010 for key municipalities in the GTA in relation to rising housing prices for those municipalities. The actual dollar increase in development charges accounts for a small portion of the increase in average housing prices.

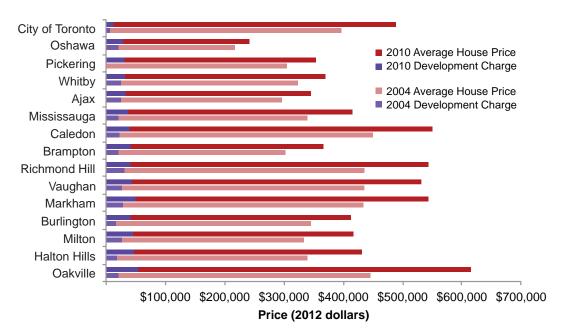


Figure 11. GTA housing prices and development charges 2004–2010

Calculated using data from the Toronto Real Estate Board, Statistics Canada and Amborski⁵⁸

Factor 4: Land availability and regulations

The availability of land, both in terms of its physical location and the regulations governing its use, can influence home prices. However, in the GTA this may only be an issue for specific, established neighbourhoods.

Key findings

- There is an adequate supply of land in the GTA for approved and future residential developments.

 Based on municipal projections, 81% of the land available for development will still be unused in 2031.
- Intensification policies will mean more housing units can be built per acre than previously. It is possible to build 250,000 more high-density housing units in the GTA by 2031.
- Land availability is not an issue for the region, but it is relevant for established neighbourhoods that
 are favoured by homebuyers. These neighbourhoods, which tend to be near the urban centre, are
 experiencing high levels of demand combined with a lack of available land and therefore higher prices.

Land use policies in the GTA

The location and availability of land in the medium and long terms will influence the price of land, and therefore home prices. ⁵⁹ There is a finite amount of land in the Greater Golden Horseshoe (GGH) that falls within the boundaries of Lake Ontario to the south and the Greenbelt to the north, east and west.



Figure 12. Ontario's Greenbelt

Source: The Friends of the Greenbelt Foundation $^{\rm 60}$

The Greenbelt Plan governs what development can take place in the Greenbelt area. Other land use policies — namely the Provincial Policy Statement set out under the Planning Act and the Growth Plan for the Greater Golden Horseshoe established under the Places to Grow Act — direct municipalities in the GTA to estimate the amount of land needed to meet population growth forecasts and target densities of development (see Table 1)

Land supply in the GGH and the GTA

The GGH has a substantial amount of land designated for development (called "greenfields"). Table 1 contains an overview of land required and designated for future growth in the GTA, based on data submitted by municipalities. The "required" values are based on requests from municipalities for additional residential and employment lands to meet the 2031 population growth forecasts. ⁶³ These lands total just under 10,000 hectares (ha).

Meeting these requests requires designation of only 18.4% of the "whitebelt" — the rural and agricultural lands between the settlement areas adjacent to Lake Ontario and the Greenbelt — located in the GTA municipalities. Roughly 52,000 ha of land are still available to accommodate growth beyond 2031 without any incursion into the protected Greenbelt.

Table 1. Land needed to meet 2031 population projections for the GTA

Municipality	Required new land (ha)			Land available in whitebelt (ha)	
	Residential	Employment	Total	Total Available	% required
Halton	1,680	1,100	2,780	14,300	19%
Peel	0	1,539	1,539	13,926	11%
York	1,507	865	2,372	10,400	23%
Durham	1,982	886	2,868	13,332	22%
Toronto	Data is not available			Data is not available	
Total	5,169	4,390	9,559	51,958	18.40%

Source: Adapted from Tomalty and Komorowski⁶⁴

In addition to the undeveloped land shown in Table 1 there are also significant opportunities for infill development in the already built-up areas to meet the increased demand for housing and employment lands in the future. For example, Toronto will accommodate the expected population growth of 320,000 from 2011 to 2031 on just over 60,000 ha of land.⁶⁵

Land availability for low-rise versus multi-story development

Outside of Toronto, most growth can be accommodated with ground-related units — that is, single-detached, semi-detached, row and townhouses with at least three bedrooms and ground-based access. This suggests that land supply is not a constraint.

The Ministry of Municipal Affairs and Housing has concluded that municipalities in the GGH are able to accommodate over 800,000 ground-related units and 318,000 multi-storey apartment units up to 2031. 66 Based on these projections, ground-related units will accommodate about 78% of the forecasted new population in the GGH.

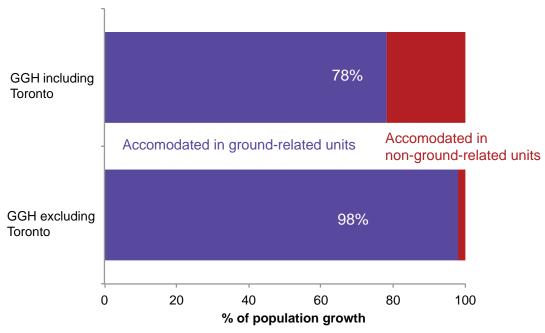


Figure 13. Percentage of projected population growth to 2031 accommodated in ground-related units

Calculated using data from the Ontario Ministry of Infrastructure⁶⁷

The Growth Plan mandates that 40% of new development occur within existing urban boundaries, and gives municipalities a density target for new development. This reduces the amount of land needed to accommodate projected growth in the region. Compared with the lower-density development of past decades, meeting the Growth Plan targets means that by 2031 the GTA could accommodate an additional 250,000 high-rise apartment units using the same amount of land.⁶⁸

Although the size of detached houses continues to increase in some suburban locations, the long-term trend in the GTA is to build new housing on smaller lots as a response to higher prices and limited space. This trend has resulted in much higher density for residential areas: one acre of suburban development that was once used to hold three or four units now holds as many as 11.⁶⁹

Land constraints in specific parts of the GTA

Land in highly sought-after locations in the City of Toronto is becoming scarcer, as is the case in most major cities. With greenfield land exhausted, infill developments have been happening for more than a decade, and space is at a premium. This has resulted in a short supply of highly sought-after housing, increasing prices. Urban centres such as Markham and Mississauga have also intensified and become centres of growth, with land values increasing in these municipalities.

As this analysis shows, there is enough land available for development under current policies. However, the policies and targets under the Growth Plan may have created the expectation of long-run shortages. This in turn leads to speculation and land hoarding.⁷⁰ "In some cases, municipal compliance with the Growth Plan is causing land owners to offer fewer lots for sale as they would prefer to sell at a higher future price."⁷¹

Comparisons to other cities with land protection policies

Figure 14 shows the change in housing prices for select large Canadian cities. The cities shown have a range of growth management policies. The Ottawa Greenbelt was introduced in the 1950s, and the Agricultural Land Reserve introduced in 1973 affects Vancouver. Ontario's GGH Growth Plan and Greenbelt Plan were introduced in 2006 and 2005 respectively, while Calgary has no comparable plan in place. Although housing prices in major Canadian cities have not moved uniformly, there has been strong long-term growth in all of these markets.

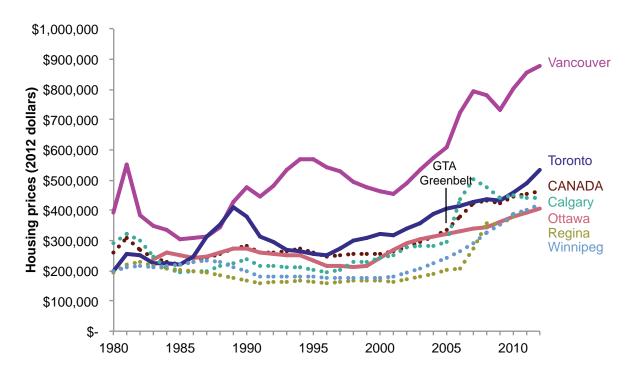


Figure 14. Housing prices in select cities with (solid lines) and without (dotted lines) urban growth boundaries

Calculated using data from the UBC Centre for Urban Economics and Real Estate and Statistics Canada⁷²

Factor 5: Location and housing stock supply and demand

While land availability can influence home prices, particularly in urban built-up areas, the supply of different types of housing stock can affect prices as well. Ultimately, these two factors are interrelated. In the GTA, the supply of housing stock in specific locations has a strong influence on demand and prices.

Key findings

- Toronto homebuyers have a strong preference for housing in established neighbourhoods that are close to urban centres, amenities and transit lines. This is pushing demand and prices upward in these locations.
- In these same locations, development is building in and up rather than out due to land constraints. Buyers who prefer to live in urban centres are driving up demand for multi-unit dwellings.
- There is a limited supply of affordable single-family houses in preferred locations, specifically in Toronto. Elsewhere in the GTA, single-family houses are still in ample supply, but often located in car dependent neighbourhoods.
- Both young homebuyers and seniors are driving the demand for condominiums in accessible and location-efficient neighbourhoods.
- Although total housing stock (existing and new) in the GTA consists primarily of single-family houses, since 2009 more multi-family units have been built than single-family houses.

Location preference and housing stock

In the GGH, and especially in the GTA, housing submarkets can experience more acute supply and demand tensions for particular locations and housing types. These relationships dramatically influence price fluctuations. For example, attached and semi-detached houses located close to employment and amenities such as shopping, schools, parks or higher-order transit command much higher prices than homes with less access to amenities.^{73,74} These preferences drive up home prices in these submarkets, which can raise the average price for the entire region.

Toronto remains a strong market in the GTA. The availability of detached and semi-detached single-family homes in Toronto is limited, while the preference to live in Toronto and own a single-family home remains strong.⁷⁵ This is especially true "in established neighbourhoods close to downtown jobs and transit lines."⁷⁶

Of the 10 most expensive neighbourhoods in the GTA, eight are Toronto neighbourhoods dominated by detached and semi-detached single-family homes. These neighbourhoods are expensive, not just because of nearby amenities, but also due to their exclusivity. Prices have also climbed sharply in suburban centres such as Oakville, King City and Richmond Hill, as shown in Figure 15.

The least expensive neighbourhoods (Figure 16) are either further from Toronto — in the cases of Oshawa, Whitby and Ajax — or inner suburbs of Toronto with weaker connections to transit — such as Scarborough, Rexdale and North York 77 — which may contribute to and be a consequence of socioeconomic and demographic factors. 78

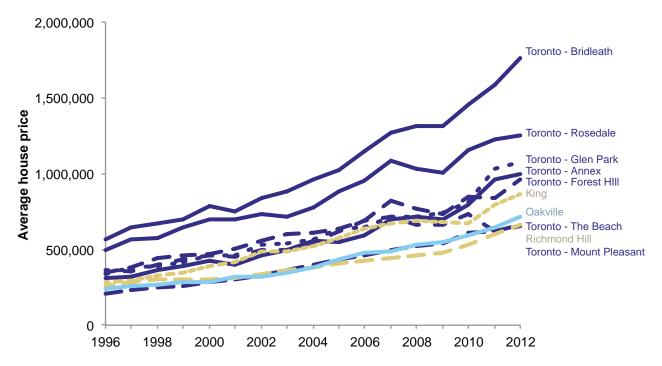


Figure 15. Municipalities or municipal centres with the highest average housing prices (2012 dollars)

Calculated using data from the Toronto Real Estate Board and Statistics Canada 79

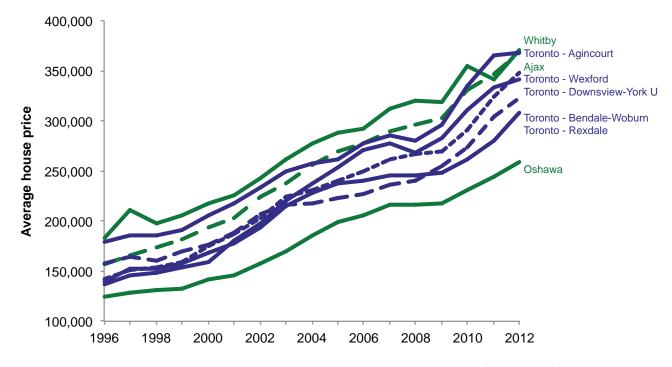


Figure 16. Municipalities or municipal centres with the lowest average housing prices (2012 dollars)

Calculated using data from the Toronto Real Estate Board and Statistics Canada⁸⁰

Single-family homes

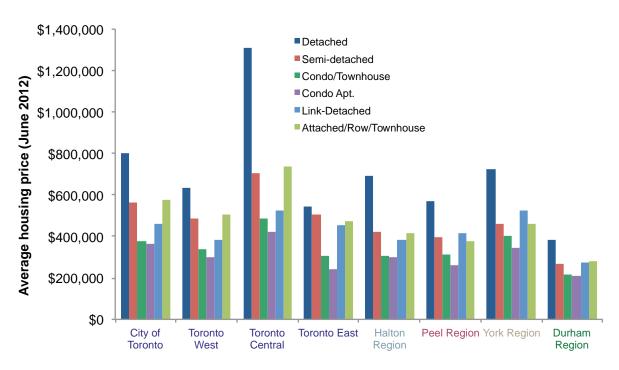


Figure 17. Housing prices in the City of Toronto and the GTA by house type

Calculated using data from the Toronto Real Estate Board and Statistics Canada⁸¹

Figure 17 shows the relatively high price of detached houses in Toronto, particularly in central and west Toronto. These are desirable locations, close to amenities and connected by higher-order transit. In April of 2013, the average price of a detached house in the City of Toronto was over \$800,000, while in the 905 area code region outside of Toronto, the price was just under \$600,000.82 In 2004, a single-family home in Toronto cost \$117,000 more than one in the GTA. The gap in price between Toronto and its suburbs has almost doubled in the last 10 years.

Increasing prices in one submarket, such as Toronto, can influence the average price of single-family housing stock for the whole region. In the case of suburban homes, the stock is greater and the price is lower for homes further from the urban or suburban core. Figure 18 shows that single-family homes in the GTA are most expensive in municipalities that are either closer to Toronto or are themselves well-established urban centres. Single-family detached houses are more expensive in Richmond Hill, Markham, Vaughan and King relative to the rest of York Region. The same is true for Mississauga in Peel Region, Oakville in Halton Region, as well as Uxbridge and Pickering in Durham Region.

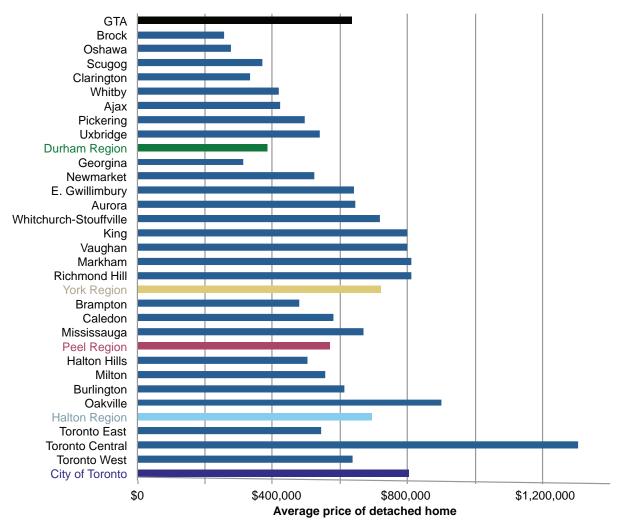


Figure 18. Average price of detached house in the GTA, June 2012

Calculated using data from the Toronto Real Estate Board and Statistics Canada⁸³

The average size of houses in some regions is also increasing, suggesting that housing stock is not impacted by land constraints in the regions. York and Halton experienced the largest average price increase for a new detached house between 2007 and 2011, and the average dwelling size also increased from approximately 2,700 to 3,100 square feet. In Durham and Halton, where the average detached house size has remained relatively stable, price increases have been more moderate.⁸⁴

Multi-unit housing stock

With the lack of greenfield land available for development in Toronto, single-family homes in established neighbourhoods are at a premium. Most buyers are priced out of the market for single-family homes in Toronto. This leaves them with the choice of either a detached house in a more distant, car-dependent location or a lower-priced, multi-unit townhouse or condominium in a location-efficient neighbourhood.

Existing housing stock

Dwellings with five or more storeys accounted for 41% of existing housing stock in Toronto in 2011, and single-family detached houses made up about a quarter. This housing mix is inverted in the surrounding regions, with detached homes comprising 46–67% of the housing supply — indicating that the shortage of affordable single-family homes is contained to Toronto and possibly the city centres of preferred municipalities.

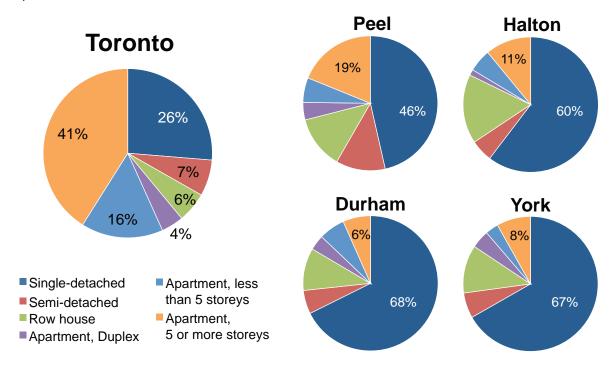


Figure 19. Breakdown of dwelling types in the GTA (2011)

Calculated using data from Statistics Canada⁸⁵

New housing stock

The housing mix may be changing. Figure 20 below shows that since 2009, more multi-family units have been built than any other type of dwelling in the Greater Toronto and Hamilton Area.

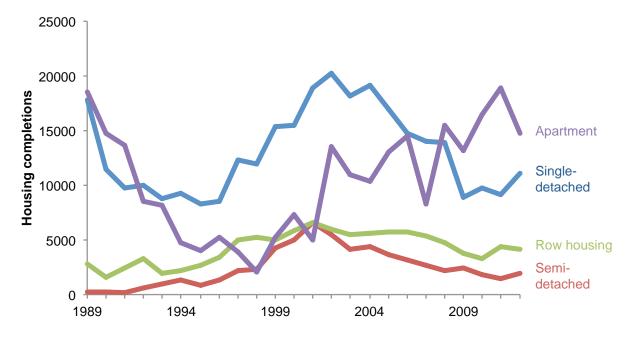


Figure 20. Housing completions in the Greater Toronto and Hamilton Area

Calculated using data from Statistics Canada⁸⁶

Changing demographics and preferences

The demand for compact, transit-accessible development is likely being supported by the growing trend, particularly among a younger demographic, to live in location-efficient neighbourhoods.⁸⁷ The cost of transportation,⁸⁸ as well as the opportunity for first-time homebuyers to be exempted from the Toronto land transfer tax, makes a condominium in an established neighbourhood even more affordable.

There is also a growing preference among the aging population for housing that meets their location and accessibility needs, while they also cash in on their home equity. The CMHC has projected continued growth in the condominium market due in part to seniors, whose rate of condominium ownership exceeds that of any other age group — and continues to rise.⁸⁹

Discussion

This report examines a range of factors that affect home prices in the GTA, including population and demographics, income, input costs, land prices, availability, housing stock and location. A summary of how these factors have influenced home prices in the GTA is as follows:

Population and demographics

The GTA is one of the fastest-growing regions in North America; over the next 25 years, the population of the GTA is projected to increase by more than 44%. 90 In the City of Toronto, projected demand for rental homes is expected to outpace supply, due to a growing proportion of young people, seniors and in-migration influencing where people choose to live and work.

Income

The price-to-income ratio has increased in the GTA in recent years, suggesting that other medium- and short-term factors such as mortgage financing are impacting supply and demand and related home prices. In the GTA, the ratio between income and home prices has been rising most strongly in the last decade, even following the recession. However, this is most pronounced in established neighbourhoods and for preferred housing types, catalyzing homebuyers to either move to distant car-dependent suburbs, far from urban centres, or opt for more compact multi-unit housing.

Mortgage rules and interest rates

In more recent years, the factors that have most strongly influenced short- and medium-term supply and demand and resulting prices are mortgage rules and interest rates, liquidity and the projection of future home prices 91 — a confluence of factors that can explain the rush of Canadian buyers wanting to get in on the market while prices are still rising.

The easing of mortgage insurance rules, low interest rates, a solid job market and the desire for homes in specific locations have propelled prices higher in the past decade. The relaxation of mortgage insurance rules between 2006 and 2008 was a key factor driving the rapid increases in price during that period, with the onset of those changes being followed by an immediate rise in home sales and prices. Low interest rates have allowed homebuyers to access more credit, further fuelling the rise in prices.

In the GTA, prices did not spike in the post-recession market to the same degree as they did in cities such as Vancouver and Calgary, and the post-recession dip was recovered from quickly. In more recent years, demand and resulting prices have continued to be driven by all-time low interest rates, positive liquidity and the projection of high future home prices.

Input costs

The costs of building a home — including materials, labour and development charges — have increased in the GTA but have not significantly impacted overall home costs. The cost of building a new home has not increased substantially in Toronto compared to other major Canadian cities.

Development charges in the GTA increased proportionately alongside home prices over the past decade, remaining a small portion of the overall costs.

Land availability

Land budget projections demonstrate enough available land to accommodate projected population growth and demand for single-family homes for decades in the Greater Toronto Area. Based on municipal projections, 81% of the land available for development will still be unused in 2031. Therefore, Provincial land use policies, including the Greenbelt Plan and the Growth Plan for the Greater Golden Horseshoe, do not restrict growth.

Not only is there enough land available to accommodate projected population growth, outside of the City of Toronto, the majority of this growth can still be accommodated by ground-related buildings, such as single-family homes, which further suggests that land supply is not a constraint.

While there is an adequate supply of land in the GTA, this land is predominantly located far from the City of Toronto and other established centres of employment. It will not satisfy growing demand to live in single-family homes in established neighbourhoods in the City of Toronto or other urban and suburban centres, where there is limited greenfield land available.

Location and housing stock supply and demand

The regional factor with the greatest influence on GTA home prices is the limited supply of housing stock in established and location-efficient neighbourhoods in the City of Toronto and in other urban/suburban locations in the GTA. Demand for single-family and other ground-related homes in the City of Toronto and the municipalities that border Toronto has outstripped supply, driving up prices for these homes.

Most of the development to accommodate new growth in these established neighbourhoods will need to occur in the form of multi-unit homes. Demand has shifted to comparatively more affordable multi-unit homes in these locations, and prices have risen accordingly. The majority of the condominium boom in Toronto is located in desirable central neighbourhoods that are walkable and well served by transit.

The demand for compact, transit-accessible development is likely being supported by the growing trend, particularly among both a younger and growing senior demographic, to live in location-efficient neighbourhoods. The CMHC has projected continued growth in the condominium market due in part to seniors, whose rate of condominium ownership exceeds that of any other age group — and continues to rise. The condominium ownership exceeds that of any other age group — and continues to rise.

Conclusions

Factors that have impacted home prices in Canada over the past decade include a strong economy, low interest rates and favourable mortgage insurance rules. These factors have increased the demand for homes and driven up prices across Canada, including in the GTA.

Prices in the GTA have risen steadily and consistently, paralleling the national trend, but without the sharp spikes witnessed in cities such as Calgary and Vancouver. Regionally, the greatest influence on GTA home prices is the limited supply of housing stock, such as single-family homes, in established location-efficient neighbourhoods in the City of Toronto and in other urban/suburban locations in the GTA. Demand for single-family homes in the City of Toronto and the municipalities that border Toronto has outstripped supply, driving up prices for these homes.

Due to the relative scarcity of affordable and location-efficient single-family houses, demand has shifted to more affordable multi-unit homes for homebuyers and renters wanting to live in established neighbourhoods.

Key insights are as follows:

- 1. There is no shortage of land throughout the GTA to build single-family homes for decades to come, but this land is predominantly located far from the City of Toronto and other established centres of employment in the GTA.
- 2. There is limited supply of land to build single-family homes in established, location-efficient neighbourhoods where people want to live; therefore home prices have increased and will continue to rise in these locations.
- 3. Due to scarcity of affordable housing stock in established location-efficient neighbourhoods, many homebuyers are being "priced out" of established neighbourhoods and are faced with a trade-off: condominium style living in transit-accessible neighbourhoods or owning a single-family home located in car dependent neighbourhoods.
- 4. There is no evidence that Provincial land use policies, including the Greenbelt Plan and the Growth Plan for the Greater Golden Horseshoe, restrict housing development and contribute to rising home prices.

This study is part of a series that examines factors that are redefining how we live in the suburbs and the city. A previous study in the series, the RBC-Pembina *Home Location Study*, found over 80% of GTA residents would give up a large home and yard to live in a "location-efficient" neighbourhood either in the city or the suburbs.

"Location-efficient" neighbourhoods exist in established urban and suburban hubs that provide walkability to stores, restaurants and other amenities, convenient access to frequent rapid transit, reasonable commutes to work and opportunities to walk or cycle to various destinations.

References and notes

- ¹Cherise Burda, RBC-Pembina Home Location Study: Understanding Where Greater Toronto Area Residents Prefer to Live, Pembina Institute (2012) 1. http://www.pembina.org/pub/2358
- ² Ibid., 8.
- ³ Ibid., 1.
- ⁴Toronto Board of Trade, Regional Transportation: A Guide for the Perplexed (2010). https://www.bot.com/AM/Template.cfm?Section=Infrastructure_Committee&Template=/CM/ContentDisplay.cfm&ContentID=4680
- ⁵This report addresses the Greater Toronto Area as depicted in map. If the area in question is the City of Toronto, or the broader Greater Golden Horseshoe, they will be specifically named as such.
- ⁶City of Toronto: http://www.incentiveworksshow.com/wp-content/uploads/2013/02/IW13_GTA_Map.pdf
- ⁷ UBC Centre for Urban Economics and Real Estate, "Compilations of Royal LePage House Price Survey Data"; Statistics Canada, "Consumer Price Index (CPI), 2009 basket," CANSIM Table 326-0021. http://www5.statcan.gc.ca/cansim/
- ⁸ Frances Bula, "Vancouver's Vacancies Point to Investors, Not Residents," The Globe and Mail, March 20, 2013. http://www.theglobeandmail.com/news/british-columbia/vancouvers-vacancies-point-to-investors-not-residents/article10044403/
- ⁹Robert Helsley and Tsur Somerville, "Housing in Vancouver: Booms, Busts and Bubbles," Viewpoints (2005) 14. http://www.sauder.ubc.ca/Faculty/People/Faculty_Members/~/media/Files/Faculty%20Research/Publications/Helsley-Paper-BoomsBustsBubbles.pdf
- ¹⁰ Toronto Real Estate Board, December Market Watch (1996-2012). http://www.torontorealestateboard.com/market_news/market_watch/; "Consumer Price Index (CPI), 2009 basket."
- ¹¹Transit that generally operates in its own dedicated right-of-way and outside of mixed traffic, and that can therefore achieve a frequency of service greater than mixed-traffic transit. Higher-order transit can include heavy rail (such as subways), light rail (such as streetcars) and buses in dedicated rights-of-way. City of Kitchener, "Planning Growth Management Strategy Terminology." http://app.kitchener.ca/city_hall/departments/devtech_services/planning/growth_management_terminology.html (accessed May 27, 2013).
- ¹² December Market Watch (1996–2012); "Consumer Price Index (CPI), 2009 basket."
- ¹³ Brian Peterson and Yi Zheng, "Medium-Term Fluctuations in Canadian House Prices," Bank of Canada Review, Winter 2011-2012
- ¹⁴ Statistics Canada: <u>https://www12.statcan.gc.ca/census-recensement/2011/as-sa/fogs-spg/Facts-cma-eng.cfm?LANG=Eng&GK=CMA&GC=535</u>
- ¹⁵ Ontario Ministry of Finance, Ontario Population Projections Update: http://www.fin.gov.on.ca/en/economy/demographics/projections/
- ¹⁶ Brian Peterson and Yi Zheng, "Medium-Term Fluctuations in Canadian House Prices," Bank of Canada Review (2012) 30.
- 17 "Compilations of Royal LePage House Price Survey Data"; "Consumer Price Index (CPI), 2009 basket."
- ¹⁸ "Compilations of Royal LePage House Price Survey Data"; "Consumer Price Index (CPI), 2009 basket."
- 19 Ibid
- ²⁰ In particular, high rates of net migration, declines in the average size of households and increases in population shares of cohorts of individuals in their thirties will boost housing demand by increasing the share of the

- population of household formation age. Organisation for Economic Cooperation and Development, Economic Outlook (2005).
- ²¹ Mario Toneguzzi, "What Happened to the Expected Alberta Real Estate Boom?" Edmonton Journal, April 13, 2013. http://www.edmontonjournal.com/business/real-estate/ What+happened+expected+Alberta+real+estate+boom/8227385/story.html
- ²² City of Toronto, Profile Toronto: Trends in Housing Occupancy (2012). http://www.toronto.ca/opreview/pdf/trends in housing occupancy bulletin.pdf
- 23 Ibid.
- ²⁴ City of Toronto, Backgrounder 2011 Census: Marital Status, Families, Households and Dwelling Characteristics (2012) 1-3. https://www.toronto.ca/demographics/pdf/censusbackgrounder_hhds_2011.pdf
- ²⁵ Statistics Canada, "Total Number of Private Households by Household Type 20% Sample Data." Canadian Census (1986-2011). http://www12.statcan.gc.ca/census-recensement/index-eng.cfm?MM
- $^{\rm 26}$ Backgrounder 2011 Census: Marital Status, Families, Households and Dwelling Characteristics.
- ²⁷ Profile Toronto: Trends in Housing Occupancy.
- ²⁸ Ibid., 8
- ²⁹ Ibid., 10.
- 30 Ibid., 10.
- ³¹ Ontario Ministry of Finance, Ontario Population Projections Update: http://www.fin.gov.on.ca/en/economy/demographics/projections/
- ³² Toronto City Planning, "Flashforward Addendum: Projected housing demand by tenure to 2031", Toronto Official Plan, July 2006.
- ³³ Andrey Pavlov and Susan Wachter, "Subprime Lending and Real Estate Prices," Real Estate Economics (2010).
- ³⁴ There is a strong relationship between the growth of mortgage credit and the inflation of housing values since 1990. See Alan Walks, "Canada's Housing Bubble Story: Mortgage Securitization, the State, and the Global Financial Crisis," International Journal of Urban and Regional Research (2012) 20.
- 35 "Compilations of Royal LePage House Price Survey Data"; "Consumer Price Index (CPI), 2009 basket."
- ³⁷ "Canada's Housing Bubble Story: Mortgage Securitization, the State, and the Global Financial Crisis," 7.
- ³⁸ A subprime mortgage is a type of mortgage that is normally made out to borrowers with lower credit ratings. As a result of the borrower's lowered credit rating, a conventional mortgage is not offered because the lender views the borrower as having a larger-than-average risk of defaulting on the loan.
- 39 "Canada's Housing Bubble Story: Mortgage Securitization, the State, and the Global Financial Crisis," 7.
- ⁴⁰ Ibid., 19.
- ⁴¹ "CMHC Drops 100% Financing and 40-Year Amortizations," Canadian Mortgage Trends, July 9, 2008. http://www.canadianmortgagetrends.com/canadian_mortgage_trends/2008/07/cmhc-drops-100.html
- 42 "Canada's Housing Bubble Story: Mortgage Securitization, the State, and the Global Financial Crisis," 19.
- ⁴³ Pete Evans, "Ottawa Caps CMHC Mortgages at 25 Years," CBC News, June 21, 2012. http://www.cbc.ca/news/business/story/2012/06/21/flaherty-mortgage-cmhc.html
- ⁴⁴ Canada Mortgage and Housing Corporation, Housing Now: Greater Toronto Area (2013) 3. https://www03.cmhc-schl.gc.ca/catalog/productDetail.cfm?lang=en&cat=70&itm=41&fr=1370287272497.

Also see July 2013 figures: http://www.theglobeandmail.com/report-on-business/economy/housing/housing-starts-steady-in-july/article13681409/

- ⁴⁵ Ibid. 2.
- ⁴⁶ See for example "Subprime Lending and Real Estate Prices" and F. Allen and D. Gale, "Optimal Financial Crises," Journal of Finance 53 (1998).
- ⁴⁷ "Compilations of Royal LePage House Price Survey Data"; "Consumer Price Index (CPI), 2009 basket."
- ⁴⁸ Mark Weisleder, "Why GTA Housing Market Will Stay Strong in 2013," Toronto Star, December 21, 2012. http://www.thestar.com/life/homes/2012/12/21/why_gta_housing_market_will_stay_strong_in_2013.html
- ⁴⁹ Paul Emrath, "Breaking Down House Price and Construction Costs," Housing Economics, Special Studies, March 5, 2010. http://www.nahb.org/fileUpload_details.aspx?contentID=85253&fromGSA=1
- ⁵⁰ See for example Donald Jud and Daniel Winkler, "The Dynamics of Metropolitan Housing Prices," The Journal of Real Estate Research 23 (2002); J. M. Abraham and P. H. Hendershott, "Bubbles in Metropolitan Housing Markets," Journal of Housing Research 7 (1996); Dennis R. Capozza, et. al., Determinants of Real House Dynamics, Working Paper 9262 (2002); and Edward Glaeser and Joseph Gyourko, Arbitrage in Housing Markets, NBER Working Paper No. w13704 (2007).
- ⁵¹ "The Dynamics of Metropolitan Housing Prices."
- ⁵² Conference Board of Canada, Canadian Industrial Outlook: Canada's Residential Construction Industry (2012).
- ⁵³ Statistics Canada, "New Housing Price Indexes," CANSIM Table 327-0046. http://www5.statcan.gc.ca/cansim/ (accessed May 6, 2013).
- ⁵⁴ Statistics Canada, "Construction Union Wage Rate Indexes" CANSIM Table 327-0045. http://www5.statcan.gc.ca/cansim/ (accessed May 6, 2013).
- ⁵⁵ Government of Ontario, Development Charges Act 1997, S.O. 1997, c. 27. S. 2(1).
- ⁵⁶ D. Amborski, Alternatives to Development Charges for Growth-Related Capital Costs, Residential and Civil Construction Alliance of Ontario (2011). http://www.rccao.com/news/files/RCCAO_March2011_ REPORT-1.pdf.
- 57 There has been significant debate on this subject by economists. For the recent U.S.-based studies, see Keith R. Ihlanfeldt and Timothy M. Shaughnessy, "An Empirical Investigation of the Effects of Impact Fees on Housing and Land Markets," Regional Science and Urban Economics (2004) 34; see also Shishir Mathur et al., "The Effect of Impact Fees on the Price of New Single-family Housing," Urban Studies, (2004) 41. Note that various theoretical models have predicted that changes in development will either be shared between landowners and homebuyers or paid entirely by landowners in the form of lower sale prices of developable land. This was also the finding of the only empirical study found in our research to consider development charges in the City of Toronto by Skaburskis and Qadeer, which was conducted in 1992. However, this research occurred before the current dramatic increase in average home prices and before advances in econometric modeling incorporated in the more recent U.S.-based studies.
- ⁵⁸ December Market Watch (2004 and 2012); "Consumer Price Index (CPI), 2009 basket"; Alternatives to Development Charges for Growth-Related Capital Costs.
- ⁵⁹ Morris A. Davis and Jonathan Heathcote, "The Price and Quantity of Residential Land in the United States," Journal of Monetary Economics 54 (2007).
- ⁶⁰ Friends of the Greenbelt Foundation, "About the Greenbelt." http://greenbelt.ca/about-greenbelt (accessed May 16, 2013).
- ⁶¹ Government of Ontario, The Greenbelt Act, S.O. 2005 c.1. http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_05g01_e.htm

- ⁶² Government of Ontario, Places to Grow Act, S.O. 2005 c.13. http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_05p13_e.htm
- 63 Ray Tomalty and Bartek Komorowski "Inside and Out: Sustaining Ontario's Greenbelt," Greenbelt Foundation Occasional Papers (2011) 7. http://greenbelt.ca/sites/default/files/inside_and_out_sustaining_ontario039s_greenbelt_.pdf
- 64 Ibid., 7.
- ⁶⁵ Ontario Ministry of Infrastructure, Growth Plan for the Greater Golden Horseshoe: Schedule 3 (2006). https://www.placestogrow.ca/content/ggh/plan-cons-english-all-web.pdf
- 66 800,000 is a 2006 estimate based on when the land budgets were prepared; since then 160,000 ground-related units have been built, leaving about 640,000 ground-related units to be built. Source: Ministry of Municipal Affairs and Housing, unpublished research, November 2012.
- ⁶⁷ Growth Plan for the Greater Golden Horseshoe: Schedule 3.
- ⁶⁸ Ministry of Municipal Affairs and Housing, unpublished research, November 2012.
- ⁶⁹ M. Haider and E. Miller, Modeling Location Choices of Housing Builders in the Greater Toronto, Canada, Area, 151. http://milute.mcgill.ca/Research/Senior/Housing_TRB_2004.pdf
- ⁷⁰ Suburban land costs increasing due to "regulatory inertia" has led to the hoarding of land and rising prices for single detached homes. Garry Marr, "GTA Condo Sales This Year Smash Record," The National Post, November 22, 2011. http://business.financialpost.com/2011/11/22/another-condo-record-falls-in-toronto/
- ⁷¹ Will Dunning, Restricted Land Supply and Rising Housing Costs in the GTA, prepared for the Residential Construction Council of Ontario (2011). www.wdunning.com/docs/RESCON-11-10-17.pdf
- ⁷² "Compilations of Royal LePage House Price Survey Data"; "Consumer Price Index (CPI), 2009 basket."
- ⁷³ Morris A. Davis and Jonathan Heathcote "The Price and Quantity of Residential Land in the United States," Journal of Monetary Economics 54 (2007) 2597.
- ⁷⁴ Carolyn Ireland, "Where Are Toronto's Prime Real Estate Pockets?" The Globe and Mail, April 11, 2013. http://www.theglobeandmail.com/life/home-and-garden/real-estate/where-are-torontos-prime-real-estate-pockets/article11053637/
- 75 Cherise Burda and Graham Haines. RBC-Pembina Home Location Study: Understanding Where
- Greater Toronto Area Residents Prefer to Live. The Pembina Institute (2012). http://www.pembina.org/pub/2358
- ⁷⁶ Susan Pigg, "Toronto Real Estate: Downtown Condos Lead Broad Rise in Prices," Toronto Star, May 3, 2013. http://www.thestar.com/business/real estate/2013/05/03/toronto real estate downtown condos lead broad rise in prices.html
- ⁷⁷ David Hulchanski presents the relationship between poorer suburbs in Toronto and lack of transit connectivity in The Three Cities Within Toronto (2010) 12. http://www.urbancentre.utoronto.ca/pdfs/curp/tnrn/Three-Cities-Within-Toronto-2010-Final.pdf
- ⁷⁸ The relationship between poorer suburbs in Toronto and lack of transit connectivity is presented in David Hulchanski, The Three Cities Within Toronto (2010) 12. http://www.urbancentre.utoronto.ca/pdfs/curp/tnrn/Three-Cities-Within-Toronto-2010-Final.pdf
- ⁷⁹ December Market Watch (1996-2012); "Consumer Price Index (CPI), 2009 basket."
- 80 Ibid.
- ⁸¹ Toronto Real Estate Board. June 2012 Market Watch (2012). http://www.torontorealestateboard.com/market_news/market_watch/2012/mw1206.pdf

- 82 Susan Pigg, "Toronto Real Estate: Downtown Condos Lead Broad Rise in Prices," Toronto Star, May 3, 2013. http://www.thestar.com/business/real_estate/2013/05/03/toronto_real_estate_downtown_condos_lead_broad_rise_in_prices.html
- 83 June 2012 Market Watch.
- ⁸⁴ George Carras, "New Detached Homes Offer Excellent Value per Square Foot," Toronto Star, February 24, 2012. http://www.thestar.com/life/homes/2012/02/24/new_detached_homes_offer_excellent_value_per_square_foot.html
- 85 Statistics Canada, "Total Number of Occupied Private Dwellings by Structural Type of Dwelling — 100% Data," 2001, 2006 and 2011 Canadian Census. http://www5.statcan.gc.ca/subject-sujet/theme-theme.action?pid=40000&lang=eng&more=0&MM
- ⁸⁶ Statistics Canada, "Housing Starts, Housing Under Construction, and Housing Completion, by Month" CANSIM Table 270049. http://www5.statcan.gc.ca/cansim/ (accessed May 6, 2013).
- ⁸⁷ Susan Pigg, "Toronto Real Estate: First-time Homebuyers Heavily Influenced by Commute," Toronto Star, May 9, 2013. http://www.thestar.com/business/real_estate/2013/05/09/commute_times_key_for_firsttime_buyers_report.html
- ⁸⁸ Ipsos Reid, "Nearly Half (45%) of Canadians Say Rising Gas and Food Prices Having a 'Significant Impact' on their Budget" http://www.ipsos-na.com/news-polls/pressrelease.aspx?id=5191; Also see, Canadian Automobile Association: Cost of Operating a Car, 2012. http://www.caa.ca/driving-costs/
- 89 Canadian Mortgage and Housing Corporation, "Canadian Housing Observer 2011" (2012) 62. http://www.cmhc.ca/observer/
- ⁹⁰ Ontario Ministry of Finance, Ontario Population Projections Update: http://www.fin.gov.on.ca/en/economy/demographics/projections/
- ⁹¹ Brian Peterson and Yi Zheng, "Medium-Term Fluctuations in Canadian House Prices," Bank of Canada Review (2012)
- ⁹² Susan Pigg, "Toronto Real Estate: First-time Homebuyers Heavily Influenced by Commute," Toronto Star, May 9, 2013. http://www.thestar.com/business/real_estate/2013/05/09/commute_times_key_for_firsttime_buyers_report.html
- ⁹³ Canadian Mortgage and Housing Corporation, "Canadian Housing Observer 2011" (2012) 62. http://www.cmhc.ca/observer/