

HOUSING FINANCE INTERNATIONAL

The Quarterly Journal of the International Union for Housing Finance



- Housing and financial markets in Japan amid global inflation
- → The two housing finance crises in Hungary – lessons for the housing policy transition
- Decarbonising Tenants

- Ukraine's housing recovery forum rebuilding a place to call home
- → Round Table on Security Rights over Immovable Property (Part 1) – Objectives and Working Methods

International Union for Housing Finance Housing Finance International

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Volatility, interest rates and rental markets; three key themes

Three themes run through most of the articles in this Summer 2023 issue of HFI, cropping up again and again, sometimes separately and sometimes combined in ways that would have seemed counter-intuitive only two years ago. The themes can be summed up as follows:

- Volatility in house prices in both directions. In some countries prices have been falling for around a year. In the UK for instance, the Halifax House Price Index for May records the first year-on-year fall in prices (1%) since 2012, while falls in parts of Europe, the US and Canada have been well documented. That said, prices in other markets such as Indonesia are still rising, while other markets such as New Zealand, which has experienced a 43% rise in the past two years appear to be on the cusp of a significant correction.
- Rising interest rates. With global inflation apparently now rising, interest rates are now much higher than those prevailing comparatively recently. While there is widespread variation- mortgage interest rates in the UK have risen much further than in the EU and in the US average rates are higher again, the phenomenon is widespread and probably represents a long-term adjustment¹. This inevitably impacts heavily on affordability which has deteriorated sharply in some markets even as prices have fallen.
- Stronger demand in rental markets. Rental markets appear to be subject to stronger demand as the affordability of homeownership deteriorates, leading to some optimism about the likelihood that institutional investors may intervene more strongly. From a consumer perspective however, stronger demand can lead to the demise of private rental as a safety valve for the housing market. The Asia-Pacific regional roundup in this issue of HFI reports that rental homes deemed to be "affordable" account for a record low of only 4% of Australia's housing stock.

The three themes sketched out above recur with worrying frequency in the excellent set of articles to be found in this issue of HFI. Although they receive detailed analytical

coverage, one cannot but suspect that they will be recurring themes through 2023 and well beyond.

While our first main article continues our series of texts focussing on sustainability and the march to achieve Net Zero, it is very relevant to a time of financial volatility, higher financing costs and stretched affordability. Entitled Can Africa afford green and resilient housing? The article, by Rusmir Musić of the International Finance Corporation (IFC). takes a positive view of the challenges facing those who would make a financial case for building sustainable homes. Musić looks primarily at the formal developer-led segment of construction, which he still sees as the best immediate hope for sustainable development notwithstanding the high levels of informal construction across the continent. Looking at issues such as developer margins, sales costs and speed of sales Musić builds a convincing case for green developer-led construction. As Musić himself puts it: "The idea is to help developers see green construction not just as an embedded cost, but as an investment that yields returns."

In his article Examining the causes of escalating home prices in Canada, Steve Pomeroy focusses squarely on the theme of house price volatility noted above. He points out that after a price correction following the Global Financial Crisis (GFC), a number of countries saw sustained and rapid house price growth until around 2022 or later. These included among others, Australia, the UK, Germany, Norway, New Zealand the US and Canada. In some cases, notably the UK, the US and Canada, prices have recently fallen back sharply. Pomeroy chooses to focus on Canada and, while he is aware of recent falls in prices it is the reasons for the sustained house price rise that he seeks to elucidate. His central thesis is that the rise in prices was caused by a confluence of demand-side factors rather than by deficiencies in new housing supply. He identifies population growth caused in large measure by inward migration as one set of factors and the capacity to pay including the average mortgage rate versus median

incomes and the accumulation of equity due to rising prices as important also. With a focus on regional as well as national trends and causes this is an important contribution to the literature around house price growth.

Our third main article is Prospects for the European residential investment market, by Shaun Stevens and Maurizio Grilli. Experts on institutional investment, Stevens and Grilli point to the relatively limited permeation of institutional investment into European rental markets compared to other markets such as North America and parts of Asia. They also identify a steady growth in European investment since the GFC, driven by a perception of strong underlying demand, an under supply of rental housing and factors (such as regulation) tending to deter entry by individual landlords. The authors identify a range of factors underpinning demand including faster household formation in Europe and deteriorating affordability of homeownership, leading investors to perceive the market as offering "superior long-term risk-adjusted returns." After providing a useful overview of the residential investment market, Stevens and Grilli conclude: "Despite weaker market conditions and property prices falling since the second half of 2022, investors still intend to keep investing in the residential market sector."

Regular readers of HFI will remember the article by Dr Otmar Stöcker and Prof. Dr Dres. h.c. Rolf Stürner titled Round Table on Security Rights over Immovable Property (Part 1) objectives and working methods. This article formed part one of a two-part article. We are pleased to include the second part in the Summer 2023 issue of the Journal. With the title Round Table on Security Rights over Immovable Property (Part 2) – Accessoriness of Security Rights over Immovable Property, this important second part focusses on the key issue of accessoriness in the context of security rights. These two articles will be read by those wishing to get to the root of the complex legal issues which underpin the taking of security over immovable property and who wish to gain the insights of two of Europe's leading experts in the field.

¹ CF. The Times 31st May 2023. Eurostat

Finally, we are pleased to present a concise think piece by Saskia Van Balen and Joost Nieuwenhuijzen: Housing associations: delivering more homes sustainably during financial market turmoil. The authors paint a disturbing picture of markets increasingly characterised by higher risks and increased financial uncertainty. Their key focus is on housing

associations struggling to build affordable housing in a situation where high interest rates, increased construction costs and restrictive rental policies combine to squeeze margins and in some cases potentially to threaten financial viability. These trends can by seen in Germany, France and elsewhere. The authors go on to look at partial solutions

being tried in practice in the city of Berlin and in the Netherlands.

All in all, this is a relevant and forward-looking issue of the Journal. We hope you find it interesting and stimulating. Feedback is always welcome so don't hesitate to get in touch with comments and suggestions.

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Maurizio Grilli is a Director at Property Funds Research. Maurizio is a leading strategist with over 20 years of real estate experience. Prior to his current appointment, he has worked at BNP Paribas, the Grosvenor group and Cordea Savills. He is a Research Fellow at Manchester University. Rusmir Musić is an Operations Officer at IFC (International Finance Corporation), a member of the World Bank Group. Rusmir has worked on a number of climate-related transformative initiatives, including green and resilient affordable housing, smart green cities, value chain decarbonization, and climate adaptation. He is originally from Bosnia and Herzegovina.

Joost Nieuwenhuijzen is Managing Director of EFL. He was previously Regional Director of the Amsterdam based housing association "Rochdale", Joost created EFL in 2008 as an international housing network of practitioners and academics, whose core aims are to facilitate mutual learning by sharing knowledge and experiences and stimulate innovation. EFL has grown to an organisation of over 70 members from 14 countries, composed of (affordable) housing providers, universities and commercial companies in the value chain of housing. It's unique in its composition and is still growing.

Alex J. Pollock is a senior fellow at the Mises Institute, a past-president of the IUHF, the author of *Finance and Philosophy – Why We're Always Surprised*, and co-author of *Surprised Again! The Covid Crisis and the New Market Bubble*.

Steve Pomeroy is Executive Advisor, Canadian Housing Evidence Collaborative, McMaster University, Hamilton, Ontario, Canada. He previously headed a long range policy think-tank at CMHC (1989-94) and since 1994 has been active as a researcher and policy consultant specializing in affordable and market housing research in Canada.

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Contributors' biographies

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Christine Whitehead is emeritus professor of housing economics at the London School of Economics. She works mainly in the fields of housing economics, finance and policy. She has worked with a wide range of international agencies as well as regularly for the UK government and Parliament.

Peter Williams is Executive Director of the Intermediary Mortgage Lenders Association

and a Departmental Fellow, Department of Land Economy, University of Cambridge. He was previously Director of the Cambridge Centre for Housing and Planning Research, Deputy Director General of the Council of Mortgage Lenders and Professor of Housing at the University of Wales, Cardiff. He is currently on the board of The National Housing Federation.



By Steve Pomeroy

1. Introduction

Canada experienced a dramatic increase in home prices, causing concern that this is a housing affordability crisis and generating calls on government to address this issue. Although prices have since fallen back from their peak in mid 2022, they remain well above pre 2020 levels Fig 1). Federal and provincial politicians, abetted by briefs from bank economists, as well as reports from the national housing agency, Canada Mortgage and Housing Corporation (CMHC) have fixated on the underlying cause as a chronic problem of undersupply. This is however a contested perspective with other economists and analysts suggesting that this overlooks critical demand side factors (Fallis 2021, Kavcic 2021, Pomeroy 2021). This paper will examine and discuss the respective arguments and proposed policy response.

Following a significant but varied correction after the 2008 global financial crisis, indicators of home price (real and nominal) and affordability ratios reveal a steady upward trend, especially following the onset of the Covid pandemic, and associated reduction in mortgage rates (Fig 1). This is especially the case for Canada, which compared to the US and UK experienced only a modest pause in price and unaffordability trends in 2008-09. And across many countries' prices rose faster and affordability worsened through the Covid Pandemic after Q2 2020. Data from the Economist Global price series (2021) reveal that alongside NZ (at 50% over valued), Canada (at 44%) was rated in 2021 as one of the most overvalued residential real estate markets globally.

While national data provide some overview, markets within countries can vary. The annual Demographia International Housing Affordability Report 2023 edition assesses affordability using the median household income against the median home price for a cross section of larger cities in nine countries. The report has developed an affordability measure to scale relative affordability:

Demographia Housing Affordability Rating

Rating	Median Multiple*
Affordable	3.0 and under
Moderately Affordable	3.1 to 4.0
Seriously Unaffordable	4.1 to 5.0
Severely Unaffordable	5.1 and above

^{*} Multiple: median house price divided by median household income

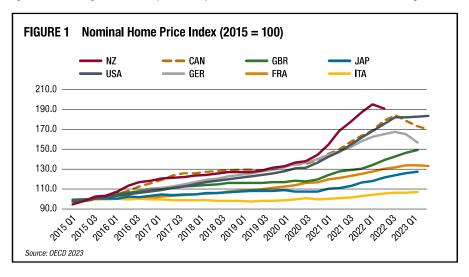
Following a significant but varied correction after the 2008 global financial crisis, This report highlighted the covid period trend comparing the number of cities rated as severely unaffordable (a median multiple of 5.1 and higher) a statistic that increased from 31 cities in 2019 to 52 in 2022. Six cities from Canada are included with four (Ottawa, Montreal, Vancouver, and Toronto) all identified as severely unaffordable. Edmonton is categorized as moderately affordable and Calgary as seriously unaffordable, a reflection of the pre 2021 weak oil and gas resource economy in that region).

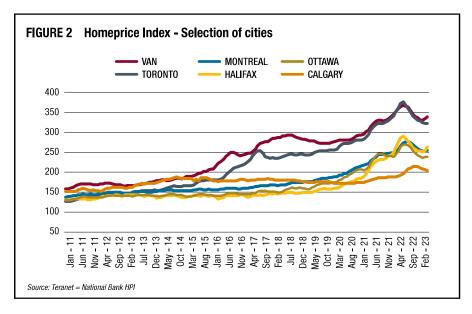
The Demographia (2022) report further highlights contributing factors, and particularly the

impact of higher income households working from home and exercising demand for larger homes as well as supply chain issues that impact material costs for new construction. At the same time, in the Canadian context, the listing of homes for sale was often lower than the volume of demand, creating a sellersmarket and bidding wars.

Figure 2 Illustrates recent price trends using the Teranet-National Bank Home Price Index (compares prices for a set of repeat sales), for a cross section of cities, including those in the Demographia report (2022). This shows the general upward trend since 2016 and the very substantial increase in the Covid period commencing in spring 2020. Only Calgary bucks the trend as the slowdown in the oil sector led to a weak regional economy and net population outflow, weakening housing demand. Much of the interprovincial population movement, which pre 2014 had been centred on Alberta, shifted and people relocated out of Alberta and largely to the low mainland of BC (Vancouver) and the Greater Toronto area, creating increased demand in those locales.

While Vancouver and Toronto have the highest prices, all cities except Calgary experienced very large prices increases post 2019 through to the summer of 2022. With the opportunity for remote work there was a notable migration to





the maritime provinces, with the regional centre Halifax seeing prices rise by 82% Jan 2019 to May 2022). Meanwhile prices increased by 42% in Ottawa and Montreal, 46% in Toronto and 33% in Vancouver, exacerbating access to ownership in markets where prices were already moving beyond the reach of many aspiring first-time buyers.

As shown in Figure 2, home prices peaked in the summer of 2022 (again except Calgary which peaked later in November 2022) and have since fallen back by roughly 10%, due primarily to the increase in mortgage rates being implemented as the Bank of Canada seeks to bring excessive inflation down to their target band (2%-3%). As discussed further this suggests the importance of demand side factors, previously ignored in the fixation on lack of supply as the cause of rising prices. And a similar correction is also evident in other countries, including Germany and NZ (Fig 1 earlier)

2. Exploring the factors and causes driving up prices

In the face of such substantial price increases and related concerns about worsening affordability — both in terms of access to ownership as well as rising rents has generated considerable reflection and analysis. Although an obvious factor was the demand side impact of economic stimulus and monetary policy that substantially reduced interest rates several reports focused more on the lack of supply (Moffatt 2021, Perrault 2021, Dunning 2022, CMHC 2022).

Perrault (2021) in a Scotiabank Economics brief noted that the escalation of prices preceded but was exacerbated by the pandemic and asserted that the current situation reflects a chronic insufficiency of housing supply. In drawing this conclusion, he compared the number of homes per capita to the G7 average. Dunning (2020) similarly used an international comparison with a broader range of OECD countries, again placing Canada below the average for many comparable countries. And both analysts then generated estimates of how many homes would have been required had Canada matched these international averages. The 2022 federal budget focused extensively on housing and replicated Perreault's (2020) G7 comparison to observe that "there are a number of factors making housing more expensive, but the biggest issue is supply" (Finance Canada 2022). The Budget then proposed that adding supply would make housing more affordable for all and proposed a \$4 billion Housing Accelerator Fund (the details of which were only announced in the spring of 2023).

While Canada may have fewer homes per capita, it also has, alongside the US, larger than average household size — a function both of demographics as well as the pattern of urban development and until recent decades, dominance of the large single detached home.

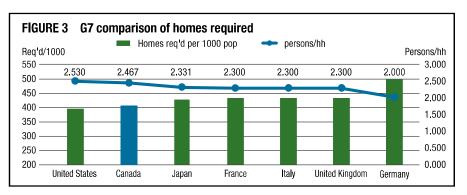
In short, because Canada puts more people in each home, it requires fewer homes per capita than the G7 or OECD average. (Fig 3)

There are geographic considerations, including patterns of migration around regions that result in substantial variations in supply pressures. And over time, as the population has aged, and fertility rates have fallen this average household size has trended downward. Finally, it is debatable whether homes per capita is the best measure, as this reflects the stock. More important is the incremental addition each year, and how this relates to new home construction (thus use of the incremental measure homes per 1,000 of population growth, used here).

Lacking from the Dunning (2020) and Perrault (2021) analyses was a more balanced and considered approach of the respective contributions of both supply and demand factors. And, as will be discussed below, potentially it was the demand factors, including speculative behavior that had the larger contribution to excessive rate of price rises during the pandemic period, as well as the influence of the very low mortgage rates (and now reversal of that trend). Løfsgaard (2017) determined via econometric analysis that interest rates and unemployment were the two most important factors explaining price trends in price trends in Oslo.

Clearly price inflation arises at the confluence of the demand and supply curve, and housing is widely identified with a low price elasticity of supply (Paixao, 2021). This low elasticity is frequently employed to criticize local government planning and approval processes, hence in Canada the 2022 federal budget proposal for a Housing Accelerator Fund is proposed to accelerate this process. Formalized in the spring of 2023, this fund will provide incentive grants to municipalities that achieve a higher level of building permit approvals and starts.

Given the inherent low supply elasticity in the short term, changes in demand factors such as a rapid rise in population growth, disposable



income and interest rates have had a significant short-term impact creating upward pressure on prices. Ideally, over the longer-term supply will expand to meet this new level of demand and re-establish long-term equilibrium.

Demographics and migration

The key fundamentals driving housing demand are the change in population and households and the capacity of these households to pay. Looking first at population growth, Canada's population expanded by between 300,000 and 350,000 annually through to 2017, at

which point it surged dramatically peaking at 583,000, before falling due to border closure during Covid (Figure 4). Given the inelastic nature of supply, this sudden surge in 2018-19 will have had a significant impact on household formation and housing demand.

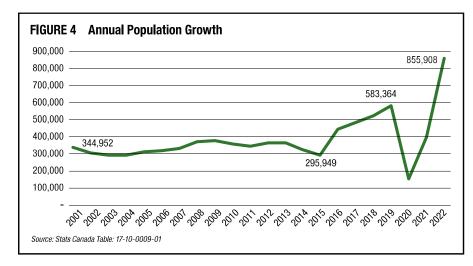
Most of the growth was via international migration; natural gowth has been declining over the past decade, as the number of deaths increases, and will continue to do so as the large postwar baby boom cohort ages into mortality (Figure 5).

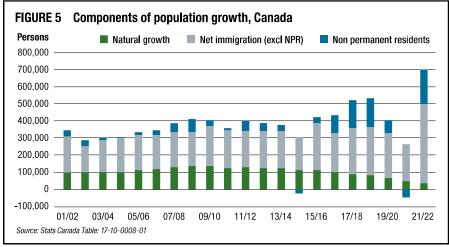
The international migration is composed of two key elements, permanment and non permanent residents (NPRs), which include temporary work permits as well as international student visas. Many temporary foreign workers are employed in the resource and agricultural sectors and frequently are housed in work camps, so many of these do not create housing demand. The larger group, international students however directly impact the rental market, and have been especially significant in smaller university cities (in one instance a city with a rental universe of 16,000 units increased international student registration by 2,000 in each of two years, driving vacancy rates from 2.8% to only 0.6%). This is a significant impact, but mainly in the rental sector rather than on home prices (except investor properties).

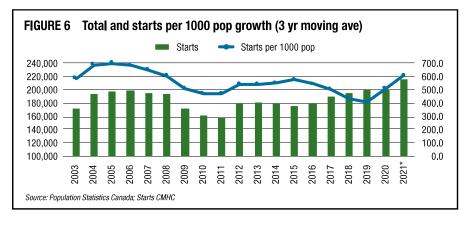
Data is not available on the detailed demographics of this large immigrant population, so it is not possible to determine how many households are created by this growth. As a proxy for households the population growth is used in conjunction with new housing construction to assess whether the annual volume of new home construction is sufficient. In 2021, the average number of persons per home in Canada was 2.47. This translates to a requirement to build 405 home for each addition of 1,000 persons, assumming new migrants approximate a simlar average household size.

Figure 6 shows both total volume of new home construction (centres with 10,000+population, representing about 90% of all new homes) and the ratio of new starts per 1,000 population growth – in both cases this figure uses a three-year moving average to smooth out year-to-year variations in growth and construction. This shows that new construction slowed immediately following the global financial crisis but since 2013 has steadily trended upward (2021 was a peak year with 244,000 new urban homes, falling only slightly to 240,000 in 2022 – note figure 3 presents this data on a three-year moving average, so conceals individual year levels).

As shown in Fig 6, the number of homes constructed per 1,000 new residents since 2003 far exceeds this requirement of 405 homes/1,000 based on prevailing household size. Over the early years of the millenium, Canada was producing substantially more homes than required. New construction slowed a little during the GFC (2007-09), then recovered.







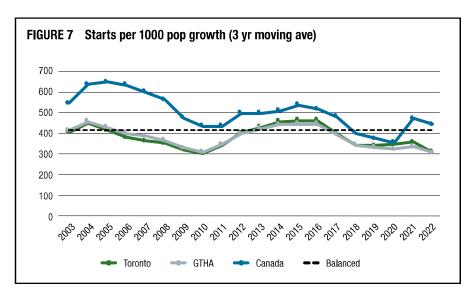
Reflecting the surge in immigration and population 2017-19 and the inelastic nature of supply, the ratio of homes/1,000 new people fell substantially after 2016. It subsequently improved due to much slower population growth in 2019-21, due to border restrictions during Covid, as well a peak year of new construction in 2021 which exceeded the average of the prior decade by 40%.

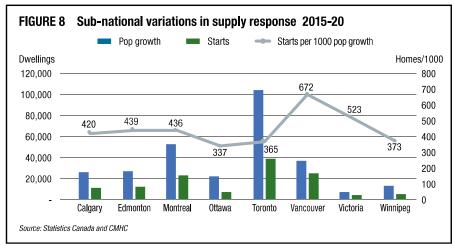
By examining incremental growth in supply compared to population, this does not support the Scotiabank thesis (Perrault 2021) that there is a backlog and chronic shortfall in new housing supply. It reveals that the mismatch in supply and demand was more a consequence of the more recent population growth surge in 2017-19. While this might have materialized into a more serious challenge, the arrival of the Covid pandemic temporarily counteracted this surge in growth.

With borders reopening and new immigration targets announced, it is anticipated that population growth will increase (Budget 2022 announced a target of 451,000 new permanent residents annually commencing 2023, and rising to 500,000 by 2025). This will create substanial new housing demand. However, the housing system has partially adapted and gradually responded with total housing starts steadily increasing and peaking in 2021. Data for 2022 indicate that the construction volume in 2022 at 241,00 (areas of 10,000 population and larger) has remained close to that record level achieved in 2021. And again using the typical household size new construction appears sufficient to accommodate demographic growth projections (natural plus anticipated immigration). This may however be temporarily impacted as the economy slows in response to efforts to tame inflation.

Sub national variations and unique case of Toronto

This assessment reflects an aggregate national picture and conceals significant and important regional differences in terms of both migration and population growth together with the supply responsiveness of different jurisdictions. The Greater Toronto Areas (GTA) accounts for 17% of the Candian population, but receives a disproportionately higher share (25%) of international immigration creating a disproportionate level of local demand. At the same time, data on the components of population change highlight very substantial offsetting outflows in intra-provincial (and some interprovincial) migration.





The net result, however is that the GTA, and especially the City of Toronto compared to the suburban part of the region) has experienced a longer term issue of undersupply. As shown in Figure 7, for the first decade of the millenium there was insufficient construction per 1,000 population growth. This improved after 2013, but again the ratio of homes per 1000 fell with the 2017-19 population surge.

Looking at the immediate pre-covid period 2015-20 the average annual population growth in the GTA was 125,000 persons. This compares to starts averaging 45,000 per year. Assumming an average of 2.4 persons per home (the 2021 Toronto average), this would establish a requirement of 52,000 and a shortfall of 7,000 per year.

Within the national story there are clearly important differences and the GTA is more an anomoly than the norm. It is the combination of constrained new development and

persisting very high levels of international migration that exacerbate the supply situation in this region. By contrast, while Vancouver is typically discussed alongside Toronto as one of the most expensive cities, it receives a smaller portion of international immigration and has generally had a higher degree of supply response to growth, as does Victoria, also in BC (Fig 8). This chart draws on data from 2015-2020 and uses the average annual value for starts, population growth and the associated ratio of starts per 1,000 growth in population.

Vancouver and Victoria clearly have a much higher relative level of supply response, compared to Toronto and the GTA, yet continue to experience significant price appreciation. During 2015-19 pre-covid period the average MLS composite home price increased by 39% in Vancouver while Toronto and Victoria both recorded an increase of 51%. These variations in supply response vs. price change suggest that factors beyond supply are also important.

3. Examining the nature of demand and phenomenon of super charged demand

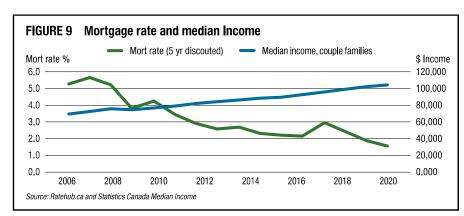
Turning to the demand side of this coin, the key fundamentals here include employment, income and associated disposable income, in combination with the cost of financing, namely interest rates.

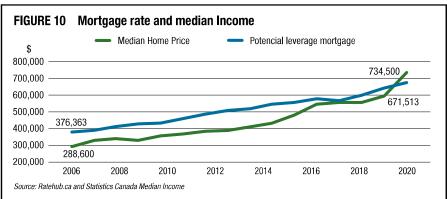
An additional significant factor which is seldom discussed is the impact of accumulated wealth as home values have appreciated and the substantial participation of existing owners as buyers (both as they change homes and increasingly use their equity to add investment properties). It is not simply the quantity of demand (i.e., population growth as discussed above), but the quality of demand — the capacity to pay of households participating or seeking to participate in the market.

The combination of a declining mortgage rate and improving employment and income is a powerful driver of the quality of demand and creates the leverage effect for buyers, including investors. Figures 9 and 10 present data on the mortgage rate and the median family income of couple families (this subgroup have higher income than all households, as singles and lone parents pull the average down, but this household type significantly impacts the market). Here the 5-year term discounted mortgage rate is used - this is the rate that well qualified clients can access. Currently in Canada 7/10 homeowners with a mortgage have a five-year fixed rate term.

Median household income has steadily increased, rising from \$70,000 to \$104,000 since 2006 (Fig 9). Meanwhile the mortgage interest rates accessed by most buyers have significantly fallen, with a temporary reversal in 2018, before plummeting in response to monetary policy during the pandemic and reaching an all-time low of 1.68% in the summer of 2021 (this has since substantially increased but not included here as income data available only up to 2021).

Figure 10 presents the resulting leverage effect — in each year the median income is used at the prevailing mortgage rate to calculate maximum borrowing capacity, assuming a 25-year amortization (this is maximum loan and excludes and additional down-payment amount that will influence total buying capacity). It is notable that until 2021 the





potential leverage of the median income family exceeded the median home price (income data not yet available for 2022).

In short, even though there was a growing divergence in the ratio of home prices to incomes, this was fully offset by declining mortgage rates. Prices were increasing in line with the increasing capacity to pay, and arguably, pulled up by this demand capacity.

The phenomenon of "supercharged demand"

Alongside the substantial impact of declining and historically low mortgage rates, the other element in the quality of demand is the use of accumulated equity from the appreciation in home prices — appreciation begets more appreciation. It also contributes to market psychology and reinforces expectations that prices will continue to rise exponentially (Kavcic 2021), a factor that has drawn more existing owners to invest in additional property to earn capital gains.

This is particularly the case given the characteristics and relative scale of the key actors on the demand side. These include first time buyers (a group increasingly constrained by high prices as well as constraining macroprudential policies); investor purchasers (many seeking to capitalize on short term appreciation, rather than as long term

investment income) and traders: existing owners seeking to increase their housing consumption (e.g. younger couples seeking a larger home to accommodate a growing family), and older households seeking to downsize both for liveability and to extract some equity for other use.

A recent analysis of the Bank of Canada (2022) combining different microdata files sought to estimate the share of mortgage-financed home purchases associated with three types of buyers, which in 2021 was estimated to be:

first-time homebuyers	47%
repeat homebuyers	33%
investors	21%

This will underestimate repeat buyers as the datafiles only categorized repeat buyer if the data reveals the discharge of a prior mortgage. Thus, owners with no mortgage would be categorized as first-time buyers, rather than a repeat buyer. So more than half of buyers are bringing considerable equity to the table. And a substantial proportion of first-time buyers are also assisted with parents contributing their windfall equity to the purchase. Separate data from the Canadian Housing Survey (2018) generates an estimate that places the proportion of FTBs under 40% of all sales.

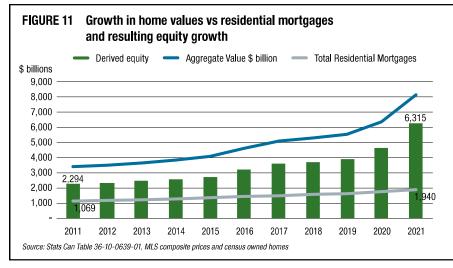
The other important aspect is the relative number of sales in any year. The total housing stock in Canada totals just over 16 million dwellings, 10.5 million of which are owner-occupied. Over the last few years resales of existing homes have averaged approximately 550,000 homes while newly constructed homes for sale average 150,000 homes. Together this means that fewer than 5% of all households are active in the market in any year.

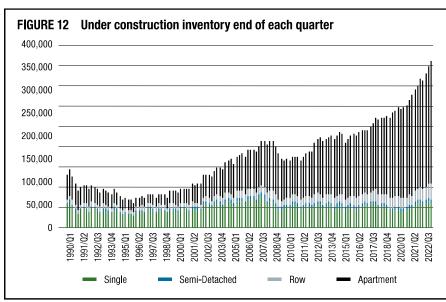
So, a very small proportion of participants "make the market" in terms of new prices and price change. With more than half of these buyers able to draw on existing equity, capacity to pay is enhanced. And in a highly competitive sellers-market this additional equity facilitates the process of bidding up prices (in Canada's real estate sales system, bids are blind and competing offers not revealed, other than to advise that other bids are higher). While levels of home equity

have been gradually growing, these values accelerated significantly post 2019.

Data on the aggregate amount of residential mortgage debt (Statistics Canada) identifies this doubling between 2011-2021 to reach almost \$2 trillion. Meanwhile the aggregate amount of total residential property values of the 10.2 million owner occupied dwellings is estimated at \$8.25 trillion. Subtracting outstanding residential debt from this aggregate value generates an estimate of the amount of equity held by existing owners, an amount that in 2021 exceeded \$6 trillion (columns in Fig 11).

Since Jan 2020, the amount of equity has increased eight times greater than debt. And in turn purchasers holding this level of equity saw their capacity to pay similarly enhanced — a phenomenon of "supercharged demand" built from the ongoing appreciation in existing home values.





4. Assessing the overall cause of rising prices

In combination, rising income, declining and low mortgage rates and the windfall gain in equity from large price increases have had a substantial impact to drive up home prices (and prices of investment property). In the absence of a detailed econometric and statistical analysis as performed in Oslo by Løfsgaard (2017) it is not possible to say that these demand factors were the main cause of rising prices. Nor whether these factors are more important than issues of short-term undersupply, as documented for the GTA (but not for Canada as a whole). However, the evidence suggests that the claim that insufficient housing supply is the largest cause of price escalation remains contestable.

More important, the consumer and policy concern is that high prices and rapid rates of price (and rent) increases undermine affordability, both for those first-time buyers seeking to purchase and for renters unable to borrow, as investors increase rents to cover increasing operating costs and as a way the raise the value of their property at resale.

The proponents of insufficient supply who suggest that supply is the primary issue also promote the corollary asserting that increasing supply will help to slow or stall the rate of price increases (See for example the claims in Budget 2022). Again, the evidence reveals that this expectation is contestable.

In 2021, and through the first half of 2022, the level of new home construction reached new heights. Total housing starts for urban Canada in 2021 reached 244,000 (excluding smaller communities under 10,000 people, which bring the overall total to 277,000 starts). This is a 40% increase over the average of the prior decade. And through 2022, the total for all areas fell only slightly (by 5%) to 262,000 indicating that new home construction has sustained a high level. In addition, the inventory of homes under construction at the end of December 2022 was at a historic high of 378,000 (Fig 12 - CMHC Housing market information portal). And this is now dominated by multiple unit apartment construction (vs. single and semi-detached).

These recent construction trends indicate that, despite an on-going critique about the onerous and slow approvals process, over the last year or so, both the municipal approval process and the construction industry have upped their game to significantly increase

output. And these current levels appear to be sufficient to meet expected growth from natural growth and international migration, at least at an aggregate national scale.

At the same time, prices for newly completed and sold single and semi-detached homes continue to rise – despite the reality that most were presold with contracted pricing prior to construction. As new contracts are now negotiated, these will reflect the prevailing market prices and market expectations, built up over the past two years. Figure 13 shows that prices for newly constructed single and semi-detached homes sold in 2022 continued to climb at a significant increase over the 2020 price levels, despite a 40% increase in construction activity. So, the notion that accelerated and expanded supply can result in reduced prices is not evident.

Prices for newly completed (and sold) detached homes peaked in January or February 2023, and have since declined slightly (Fig 13). Meanwhile resale home prices (covering all sales including condominums) have exhibited a larger fall after peaking earlier in the summer of 2022 (Fig. 14).

Prices in the larger cities have fallen by 10-15% from the peak, although remain much higher that pre-covid).

Canada is now confronting the global issue of high inflation, and like other economies is turning to monetary policy and interest rate increases to combat inflation. This is already having a bite, as higher mortgage rates are creating a significant challenge both for first time buyers and investors. Weakening demand is translating to a rebalancing with reduced sales-to-listing ratios and a small decline in prices (have declined by 14% compared to one year ago (CREA MLS Home Price Index).

An important influence on the stalling and reversal of home price increases is the rapid increase on mortgage interest rates, which bottomed out in winter 2021 and then have steadily increased. The Bank of Canada has rapidly raised the Bank Rate in an effort to curtail excess price inflation. After falling to an historic low of 1.39% in January 2021, mortgage rates (here using the "discounted rate", which is offered to more credit worthy bank clients) have gradually been increased and reached 4.69% in November 2022.

It is this demand side factor that has had the greater impact compared to supply trends, as new construction has stalled since late 2022.

The immediate price response to higher mortgage rates adds some credence to the case that demand factors, especially very low mortgage rates were as important if not more important than the short-term mismatch between supply and demand in contributing to excessive prices over the past two years.

5. Conclusion

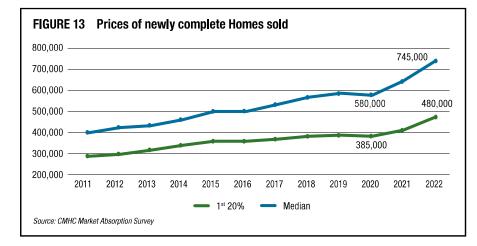
Several analysts as well as government officials have articulated a perspective that the recent escalation of home prices in Canada is primarily a consequence of a chronic undersupply of housing. They assert that remedy is to substantially expand new home construction, and this is expected to assist in slowing and stalling the rate of price increases.

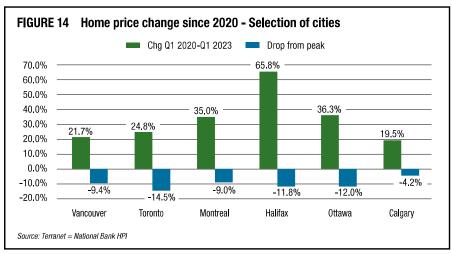
A review of the evidence, comparing the relationship between population (and household) growth to the levels of new home construction finds that there is little evidence to support the assertion of chronic undersupply, at least at a national aggregate level. A surge in international migration did create excess demand from 2017-19 (and now re-emerging) and will no doubt have had a short-term impact, driving prices upward.

With population growth constrained by closed borders during the Covid period, the key contributing factors since 2020 shifted to the impacts of monetary policy and broad wage stabilization, which together reinforced home buyer demand and the desire to secure more space to accommodate working from home.

Faced with short-term surges in population growth, there have been local shortfalls, most notably in the Greater Toronto Area (GTA), Canada's most populous region and a magnet for international migration. The fact that there is high media presence and pre-occupation with Toronto in the financial media may also contribute to a reporting bias that projects the Toronto situation as a national issue.

The data also reveal varying levels of population growth and supply responses, with an inconsistent pattern of price change across cities and regions, suggesting that insufficient supply is not necessarily the primary driver of the recent price escalation. There is also a lack of evidence that increasing





supply will lead to reduced prices. While new construction has been peaking over the last two years, prices have continued to escalate. Builders are simply capitalizing on higher prices to strengthen profits. And ultimately higher development returns are capitalized in land prices, making it difficult to lower prices for pending new development.

The alternative hypothesis is that a combination of demand side factors, including robust employment and income gains since the late 1990's, a steady decline to historically low mortgage rates and the equity gains generated by ongoing price appreciation have been a powerful force in enabling price growth and undermining affordability.

It is noted that the market is made by relatively few participants, fewer than 5% of all households are active in any one year — and those with accumulated equity represent the majority of these. The windfall gains generated for existing owners as well as investors that already have property has created a form of supercharged demand, wherein these purchasers are armed with "bags of cash" to enhance their capacity to bid, and overbid, in a highly competitive residential housing market.

While unable to respond to a sudden surge in international immigration in 2017-20 and associated housing demand over the longer term, the Canadian housing system has demonstrated ability to gradually respond to this demand (a gradual transition to long-term equilibrium, but not improved affordability), achieving peak levels of production in 2021-22. New supply will certainly be required to meet on going population and household growth, especially considering increased international immigration targets.

It is critical that government coordinate across key policy areas including labour market requirements, housing, and immigration. It is also critical that new supply includes a range of dwelling types and both price and rent levels and addresses the ongoing shortfall of deeply affordable housing. New supply alone is insufficient to address the separate issue of affordability. This requires more than a market response — it requires targeting programming and subsidies.

In March 2021 Robert Kavcic, Senior Economist at the Bank of Montreal observed "Excessively low interest rates are just incentivizing too much demand. It will eventually end, as soon as the central bank wants it to end" With the Central Banks now doing exactly this, acting on rates appears to be a quicker and more effective strategy to stall home price growth than the longer-term project of massively expanding supply.

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