Annual State of the Residential Mortgage Market in Canada

Year End 2019

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Table of Contents

1.0 Introduction and Summary

Since the Fall of 2005, Mortgage Professionals Canada has published semi-annual reports on the residential mortgage market in Canada. The objective for the reports is to create and share data that would not otherwise be available, on mortgage activity and consumers' attitudes, and to offer thought-provoking interpretations of trends in the housing and mortgage markets, and in the realm of government policies related to mortgages and housing. The reports are based largely on consumer surveys.

In addition to discussing consumer choices, attitudes, and expectations in the mortgage market, these reports look at the economic and housing market environments in which consumers are making their choices.

Opinions within this report are the author's and might not be shared by Mortgage Professionals Canada.

Home Ownership versus Renting

I think about this a lot.

There is obviously a pretty wide range of opinions. A sizable minority of people have negative attitudes about home ownership. But, a majority of us are (or want to be) owners.

I now approach this from two perspectives:

- I am satisfied that over the course of a lifetime, in most (but not all) circumstances, we are financially better off as owners rather than as renters. I explored this in "Owning vs Renting a Home in Canada", which compared the costs of renting versus owning for 266 housing options across Canada.[1] To summarize the analysis and the arguments:
    - Initially, total monthly costs for owning are usually much higher than to rent an equivalent dwelling. But, the owner's mortgage payment includes a large amount of repayment of principal. When that "forced saving" is taken into account, the "effective cost" of ownership is much lower and the cost gap between owning and renting is substantially reduced.
    - After the purchase occurs, the monthly cost of owning rises less quickly than rent, gradually shifting the comparison in favour of ownership. The table below summarizes the estimates (which were calculated for purchases occurring in the second quarter of 2018). The estimates show that initially, purchase is better than

[1] Published in September 2018. The report can be found here: https://mortgageproscan.ca/docs/default-source/government-relations/owning-vs-renting-2018.pdf

renting on the "net" basis for about three-quarters of the cases. That share increases for five years and ten years later. Even if the interest rate in 10 years is two percentage points higher, home ownership remains advantageous.
    - These calculations were based on an interest rate of 3.25%. If this analysis was updated using today's interest rates (below 3%), the estimates would be even more in favour of home ownership.
    - Later in life, when the mortgage is fully repaid, the monthly cost of owning is much less than rent.
    - Over a lifetime, the comparison usually favours ownership. And, this is even before considering the financial benefit of rising home prices.
- Secondly, are people who choose ownership being sufficiently thoughtful, and are they making good decisions? I explored this in an August 2019 report[2]. The data from that report and this new report persuade me that Canadian home buyers give a great deal of consideration to their decisions, they find the process of buying quite stressful, and for the most part (and I believe this is the result of the care they have exercised and the stress they have experienced), they do not regret the decisions they have made. The August 2019 survey and report also showed that Canadians think that over a lifetime home ownership is financially better than renting (76% versus 8%, with 16% undecided).

Table 1-1
Comparing the Costs of Home Ownership versus Renting

	Purchase in 2018-Q2 (@3.25% Interest Rate)	*5 Years Later*	*In 10 Years*	*In 10 Years @ 5.25%*
Ownership *(net of principal repayment)*	202	243	263	217
Renting	64	23	3	49
Total	266	266	266	266
% Ownership More Affordable	76%	91%	99%	82%
Source: Analysis by the author.				

Many of the criticisms of home ownership are related to the financial stresses that are experienced. Some observations:

- Just because being a home owner is stressful, it does not mean it is a bad decision. In looking at solutions for our housing needs, for many of us, most of the suitable options are challenging. So, an important question is this: given the challenging options that are available to us, are we making reasonable choices? As analysts or policy makers we need

[2] The report can be found here: https://mortgageproscan.ca/docs/default-source/consumer-reports/home-buying-in-2019_mid-year-report.pdf

to have the best possible understanding of the second point above (the processes by which decisions are made and people's comfort with their decisions). I hope we can re-orient the discussions in that direction.
- People who make home-buying decisions that cause themselves stress might actually be acting successfully in their long-term best interests. I believe that most people are capable of making reasonably good decisions about what's best for them in their circumstances.
- Another thing: I'm now 64 years old. Throughout my life, I have noticed repeatedly that housing decisions are stressful, for me and for other people (especially during the early 1980s and late 1980s/early 1990s). I don't know if the stress is now the worst-ever, but housing-related stress is definitely not a new thing.
- Also, and obviously, let's keep talking about how we can make housing options less challenging, for both ownership and renting.

Another (more tentative) thought: from comments made by government officials it is clear that the policies that suppress home buying are somewhat concerned with limiting total mortgage indebtedness. But, rental housing also has mortgages. If the policies reduce the number of owner-occupied dwellings but raise the number of tenanted dwellings, then while total owners' mortgage debt will be reduced, there will be increased total mortgages for tenanted properties. Those policies might succeed in reducing the home ownership rate in Canada, but in the long-term, they might not have very much impact on total housing-related mortgage indebtedness. There are, of course, some different possible outcomes. For example:

- If the rental supply does not expand enough to accommodate the increased demand, then there would be less associated mortgage debt. But, the housing supply shortage would create other substantive problems for Canadians. We are seeing the early stages of these problems, as vacancy rates are falling to critically low levels, rents are escalating, and we are hearing more anecdotal reports about severe financial pressures for tenants.
- Or, if the rented dwellings are smaller or lower quality than the owned dwellings that people would have preferred, then the average mortgage amounts might be lower, resulting in a reduction of total indebtedness. But, in that case Canadians would have a lower standard of housing, and that would have a wellbeing cost.
- In response to concerns about the affordability of rental housing, the federal government has begun to commit large amounts of subsidy assistance for new rental buildings. Given its existing fiscal deficit, the government will have to borrow the funds, which will be large amounts of money – as much as a half million dollars per affordable dwelling unit[3]. This activity will reduce mortgage indebtedness but there will be very large offsets in the form of government debt. The per unit amounts of money that the government borrows to fund

[3] For example, see: https://globalnews.ca/news/6422372/federal-government-toronto-affordable-housing-honest-eds/ From this news report it can be calculated that a $200 million cost to create 366 affordable units amounts to $546,000 per unit. And. there may be further financial contributions from provinces and municipalities.

those subsidies might not be very different from the amounts that would be borrowed by home owners or investors in rentals.

Something else I think about a lot: while most Canadians believe in home ownership as a personal objective, and the federal government says it wants to support them, its actions have hindered more than helped. The mortgage stress tests have become a substantial barrier to home ownership for many Canadians. I am persuaded that during the past eight years federal mortgage policies have impaired home buying to an unnecessary degree, which may be harmful to our long-term financial interests. And, a recent policy initiative that was intended to assist first-time home buyers (the First-Time Home Buyer Incentive, or "FTHBI") has, so far, achieved very little. During the first three months, about 2,700 applications were approved, or less than 1,000 per month. During the same period there were about 41,400 resale homes sold per month (per the Canadian Real Estate Association) and perhaps 10,000 new home sales per month (no data exists on new home sales for Canada). Therefore, activity under the FTHBI represented less than 2% of total sales. More importantly, due to the program design, virtually all of the users could have made their purchase without it, and therefore the incremental impact on actual sales has most likely been extremely small. The government aims to approve 100,000 FTHBI clients during the three-year life of the program. Based on results so far, the actual outcome might be only one-third of the target. Again, very little of that will amount to actual incremental activity.

In our summer 2019 survey and report, we used the consumer survey to gather opinions about the FTHBI (the discussion starts on page 28 of that report). Acknowledging that those opinions would have been quite preliminary at that time (the survey occurred after the program was announced but before it started) the responses showed only limited enthusiasm for the FTHBI, including limited willingness to give up part ownership of homes to the government. Later in the report (page 34) we asked Canadians "which would be a better option to make first-time home buying more affordable?". The responses showed a preference for 30-year amortization periods (44%) versus 27% for the FTHBI (and 29% "no opinion"). The August 2019 report concluded that "these results suggest that Canadians would welcome the addition of 30-year amortization for insured mortgages to the toolkit that supports home ownership aspirations".

A decade of changes to mortgage regulations continue to frustrate potential first-time home buyers and the new FTHBI program is likely going to provide very little support. We need a lot of open discussion about what should be the government's attitudes towards home ownership and, secondly, what policies would most appropriately help middle-class Canadians find the best solutions to their housing needs. This will not be a simple discussion, but it is necessary.

Concerns about Federal Mortgage Policies

Prior editions of this report have discussed the housing market impacts of the mortgage stress tests, especially the Fall 2017 edition. It provided a detailed review of seven sets of policy changes related to mortgages, that have increasingly constrained consumers, since 2008. Rather than repeat that review, here is a link:

https://mortgageproscan.ca/docs/default-source/consumer-reports/november-2017-report/november-2017-report.pdf

In that report, a brief overview of the seven sets of policy changes and their effects is on pages 6 and 7. The substantive review is on pages 15 to 25. That review concluded that most of the policy changes had negligible impacts. But, the change made in the summer of 2012 (the elimination of mortgage insurance for amortization periods exceeding 25 years) had a substantive and long-lasting impact. That late-2017 review also speculated that the mortgage stress tests (the test for insured mortgages introduced in the fall of 2016 and the test for uninsured mortgages (which began at the start of 2018) would also have substantive and prolonged effects. These events are discussed in a bit more detail below, in the section on housing market trends in Canada.

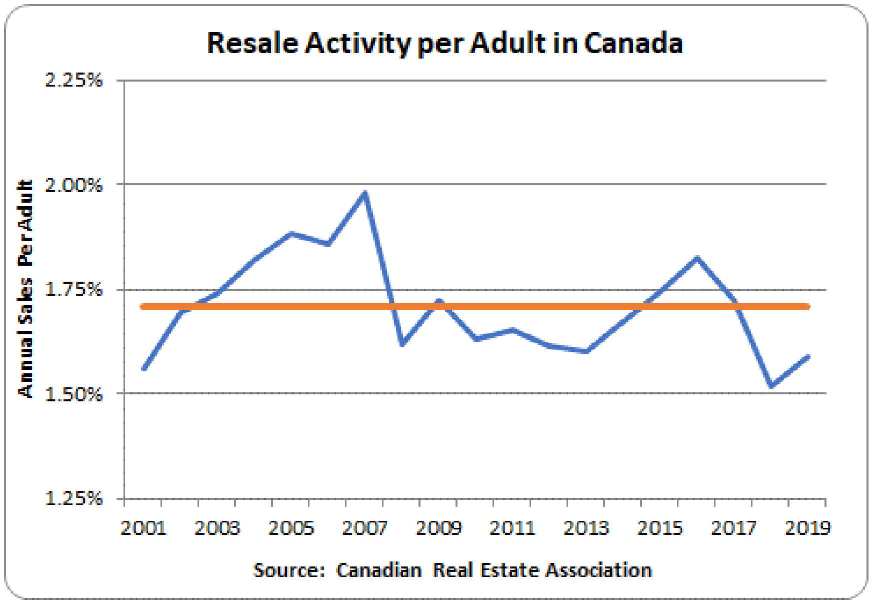
At various times I have used four different analysis methods to gauge the impacts of mortgage policy changes. One of those methods (a comparison of market trends in Canada and the US) is discussed in this report. That analysis indicates that the negative impacts have tended to diminish very gradually, so that even now the combined effect of the three policies is a sales reduction in the area of 12-15% (or 75,000 to 100,000 fewer sales per year, for resale plus new homes).

The three other analysis methods are: use data on individual transactions to calculate how many of them would be prevented by the policies, use a model of housing affordability to calculate the percentages of the population that could afford to buy before and after the policies, and adapt my forecasting system to estimate reductions in sales that are statistically attributable to the policies. All four of the methods indicate that there have been substantial and long-lasting negative effects from the three major policy changes.

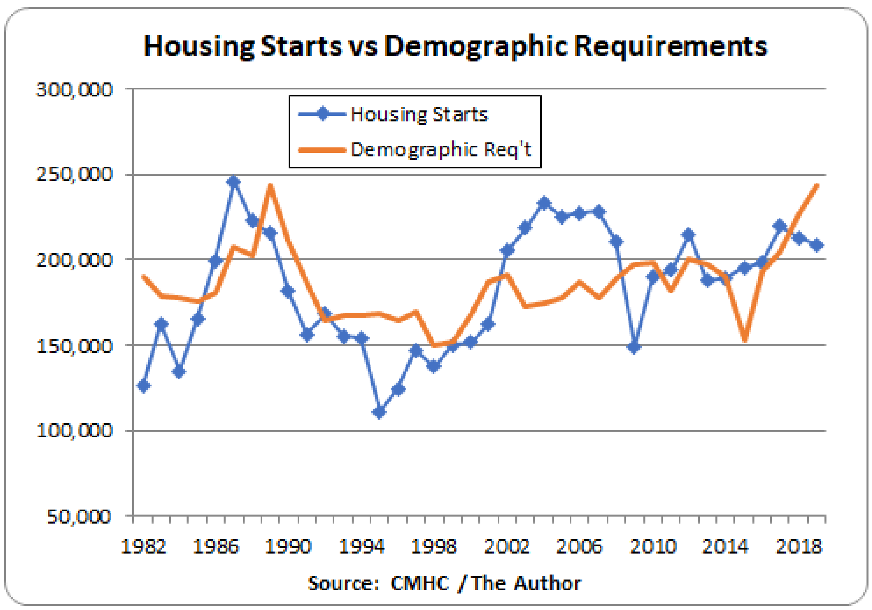
It is concluded in this report that the policies have had persistent negative impacts, although those impacts have been masked by favourable fundamental conditions (rapid growth of population, strong job growth, and low interest rates).

The continuing housing market impacts can be seen in the evolving data.

Resale market activity – especially when adjusted for population growth – was far below average during 2018, until a recovery began at mid-2019. For all of 2019, the population-adjusted sales rate was 7% below the long-term average, at a time when fundamental conditions were very favourable, due to strong job creation during the prior 2-3 years, the most rapid rate of population growth in a generation (1.5% versus a 30-year average of 1.1%) and reductions in mortgage interest rates during the first half of 2019. In that context, the sales rate for 2019 should have been above average, not 7% below average. In this chart, the long-term average sales rate is shown by the wide, flat orange line.



Rapid job creation and population growth mean that there is a need to build more new housing. The author estimates that the "demographic requirement" is now about 245,000 housing starts per year. Actual activity (about 209,000 starts in 2019) has not responded to the need, and forecasters do not expect starts to be anywhere close to the 245,000 requirement.



Under-production of new housing means that rental market vacancies are falling (and will very likely continue to fall during the next few years). The vacancy rate for 2019 was just 2.3%. By contrast, I estimate that the "balanced market vacancy rate" for Canada is 3.4% (this is the rate at which we would expect rents to rise by 2% per year). In consequence, rents are increasing rapidly (by an estimated 4.1% in 2019).

Three major issues with the stress tests are:

- They look at how mortgage payments might rise at the time of a future renewal (which usually happens in five years) if interest rates rise by a very large amount. The amount of the assumed increase has varied over time, but has been 2.0 percentage points or more. That increment has not been adequately justified.
- Another important concern is that the tests fail to consider that the borrowers' incomes will also increase, which would give them more room to afford higher payments in future. The government has not yet agreed that this is a major issue that should be addressed within the policies.
- I have a bit more to say on these two issues, below.
- Thirdly, on renewal, borrowers who want to move their mortgage to a different (federally-regulated) lender are subject to stress testing. They could end up trapped at their current lender, which could prevent them from negotiating the best-possible interest rate. I'm not aware of any data or research that adequately tests whether this is happening. The Bank of Canada and the federal regulator (the Office of the Superintendent of Financial Institutions, or "OSFI") both have data resources that could be used to investigate this, but both have commented only on interest rates for all renewals, without addressing the issue of what happens to the interest rates for renewers who would fail the stress test. Lenders have been aware of the potential impact of the stress test for renewals: after the OSFI test was implemented one of the major lenders publicly commented (in its investor-relations communications) that it provided an opportunity to increase interest margins.

The interest rate used in the stress tests has been (largely) the "posted rate" for 5-year fixed rate mortgages, as published by the Bank of Canada. At present, this results in a big increment above actual contracted interest rates (today, the posted rate is 5.19% while some lenders are advertising rates in the range of 2.5% to 2.85% for 5-year terms).

On February 18, the government announced that (effective April 6) the stress test for insured mortgages will no longer use the posted rate, and the qualifying rate will be 2 percentage points above the median (the midpoint) for new applications to CMHC (for 5-year fixed rate mortgages). According to the federal Department of Finance, if this rule was in effect immediately, the current qualifying interest rate would be 4.89%.

OSFI has started a consultation on the qualifying rate for its stress test, and it is widely expected that it will also set the rate at 2 points above the median interest rate.

One way to estimate the housing market impact of mortgage policies is to use an "affordability" model to calculate home many Canadian households could qualify for the financing they would need to buy an average-priced home.

- Comparing affordability at actual current rates (say, 2.85%) with a stress test at the "posted rate" (5.19%), close to 20% of potential buyers would be disqualified. The actual outcome would probably differ from that estimate (depending, for example, on people's willingness to lower their expectations or on their ability to find additional down payment funds).

- If the test rate is, instead, the 4.89% indicated by the Department of Finance, the impact is lessened, to about 17%.
- In short, this policy announcement will only partially mitigate the severe consequence of the stress tests (and this meagre improvement depends on OSFI making the same change).

In one respect, this is a good move: it is proper to take the "posted rate" out of the stress test policies.

But, there has not been an adequate in-public discussion about what the parameters for the stress tests should be:

- The government has not justified the assumption that in five years interest rates will be two (or more) percentage points higher. The available evidence tells us that interest rates are unlikely to change by very much.
    - Yield spreads between 5-year and 10-year Government of Canada bonds tell us that financial markets expect no material rise in rates.
    - Forecasts from economists at the major banks show an average expectation that interest rates might rise by one-third of a point during the coming two years. But, almost all of these economists always forecast that rates are going to rise. This expectation of a very small rise (the smallest I have ever seen) indicates that they see very little pressure for rates to rise.
    - The Bank of Canada has continuously ratcheted-down its estimates of a neutral interest rate. The current estimate is 0.5 to 1.5 points above existing rates (admittedly, this is for very short-term rates). Given the history of that discussion, is it possible that the estimate of the neutral rate will be reduced further? Yes, it is possible.
    - In short, there is a quite low probability that in five years, mortgage renewals will be 2 (or more) points above the initial rates.
- Secondly, the government has not publicly responded to concerns that the stress tests fail to consider income growth and how that will affect future mortgage renewals.
    - Statistics Canada's Labour Force Survey has collected data on wages since 1997.
    - The data shows that the average weekly wage in Canada has increased every year.
    - The average increase has been 2.6% per year.
    - Per five-year period, the average increase has been 13.9%.
    - Since the stress tests do not consider income growth, they are assuming that there will be no income growth during a five-year period.
    - That assumption of zero income growth over a five-year period also has a very low probability.

The stress tests make two assumptions that both have very low probabilities of occurring. In order for the stress tests to be reasonable, there needs to be a reasonable expectation that both of these events might occur: interest rates rise by 2 (or more) points <u>and</u> incomes grow not at all.

The way to calculate the probability that both of these events will occur, is to multiple the two separate probabilities.

A very low probability times a very low probability results in an extremely low probability.

Pulling this together, that home ownership is financially advantageous and the mortgage stress tests are an undue impediment to home ownership:

> ***The stress tests are major economic policies that have very substantial negative consequences for the long-term financial well-being of hundreds of thousands of middle-class Canadians, yet they are based on a scenario that has an extremely low probability of occurring.***

We really need to talk about this.

<u>The greatest risk in the mortgage market is job loss:</u> a reduction in the ability to pay is the single greatest predictor of mortgage defaults. Conversely, <u>changes in interest rates historically have had virtually no impact on default rates.</u> This is because so long as the borrower has the ability to make payments, solutions to higher payments can usually be found. It might be necessary to work with the lender, and sometimes to adjust the payment schedule (extend the amortization period).

So, the key federal government concern about mortgage debt ought to be about employment and income security, and ensuring that mortgage regulations allow for reasonable solutions when borrowers suffer reduced incomes.

The current limit of 25-year amortization for insured mortgages results in a very high rate of "forced saving". 30-year amortization periods would also result in rapid paydown of mortgage principals and growth of homeowners' equity positions. As was discussed earlier, <u>our summer 2019 consumer survey found that Canadians believe 30-year amortization is a better policy solution than the FTHBI program.</u> Since then, <u>actual events have shown that very few Canadians are interested in the FTHBI</u>.

Our consumer surveys have repeatedly shown that large shares of Canadians make substantial additional efforts to repay their mortgages in less than the originally-contracted amortization periods. Allowing them to have less financial stress early in their repayment periods (via 30-year amortization) will not reduce their motivations to hasten repayment.

The bottom line here is that Canada's growing population generates a need to expand the housing inventory, and there is an additional need to alleviate existing shortages. The requirement for new housing is currently very large. Housing construction needs capital, which can take a variety of forms (debt or equity, and equity is sometimes actually sourced from debt), from a variety of sources (home owners, investors, and government). If sufficient capital is not available, then housing conditions in Canada will get worse. Existing federal mortgage regulations are unduly contributing to worsening housing stresses for Canadians.

Overview of this Report

This report has been prepared for Mortgage Professionals Canada by Will Dunning, Chief Economist. It provides an overview of the evolving state of the residential mortgage market in Canada. Major sections of this report consist of:

- This Introduction and Summary
- Mortgage Choices
- Financial Parameters
- Consumer Sentiment
- Outlook for the Mortgage Market
- Housing Market Trends.

Data used in this report was obtained from various sources, including an online survey of 1,973 Canadians. Just over one-half (53%) were homeowners with mortgages and the rest were renters (18%), homeowners without mortgages (25%), or others who rent or live with their families and are not responsible for mortgage payments or rent (4%). The survey was conducted by Bond Brand Loyalty for Mortgage Professionals Canada during January 7 to January 28.

Mortgage Choices

Findings in this section include:

- There are estimated to be 9.91 million owner-occupied dwellings in Canada. About 6 million of these have mortgages.
- Current low interest rates for fixed rate mortgages have caused a shift to that mortgage type: for homes purchased during 2019, 85% of mortgages are fixed rate, 12% are variable or adjustable rate, and 3% are a combination of the two types.
- Amortization periods (as originally contracted at the time of purchase) have gradually lengthened over time. For purchases during 2015 to 2019, the average is 22.0 years, versus 21.2 years for all purchase periods. Contract amortization periods exceed 25 years for 11% of all mortgage holders.
- For homes purchased in 2018 or later (after the OSFI stress test took effect, amortizations have been extended slightly: the average amortization period is 22.2 years and 14% have amortization periods exceeding 25 years.

- Each year, about one-third of mortgage holders make new efforts to shorten their actual amortization periods (by increasing the regular payment to more than is required, by making a lump sum payment, or changing the payment frequency).
- During 2019, voluntary payment increases amounted to about $4.5 billion (annualized), lump sum payments amounted to about $17 billion, with a further $6 billion by people who made a lump sum payment to fully pay out their mortgages.
- For new mortgage borrowers during 2019, 44% used a representative from a major bank and 45% used a mortgage broker.
- The rate of mortgage arrears remains very low in Canada, at just 0.23% (as of August). The most important (and difficult) cause of mortgage arrears is a reduction of income (most often due to job loss). Arrears that are caused by higher interest rates are much easier to fix (for example, by adjusting the required payment through an amendment of the amortization period).

Financial Parameters

Findings in this section include:

- For new purchase mortgages during 2019, the average interest rate was 3.14%. For renewals during the year, the average was 3.06%.
- The average mortgage rate discount for 2019 is calculated as 2.25 points below "posted rates". This is the largest discount in the 15 years for which the calculation has been made.
- Home equity in Canada is equal to 73% of the value of the homes.
- Among homeowners who have Home Equity Lines of Credit ("HELOCs"), most have only partially (or not at all) accessed their available credit. On average, 39% of available credit has been accessed.
- An estimated 8.6% of homeowners (about 850,000 out of 9.91 million) took equity out of their home in the past year. The average amount is estimated at $72,000, with a combined total amount of $62 billion ($39 billion via mortgages and $22 billion via HELOCs).
- The most common use of funds from equity take-out is for home renovation or home repair ($23.8 billion). For the first time, we asked about equity take-out to assist a family member buy a home: the responses indicated a small total amount, of just $1.4 billion.
- Among recent first-time home buyers (purchases during 2015 to 2019), the average down payment was 24% of the purchase price. The share has increased (likely due to changes that have made mortgage insurance less attractive).
- First-time buyers usually get their down payment funds from multiple sources. The most significant source remains their own savings (52% for recent buyers). Help from family remains a minority source of funds: among recent buyers, 15% came as gifts and 7% as loans from family members. Two other major sources for recent first-time buyers are loans from a financial institution (13%) and funds from an RRSP (11% - this includes funds taken via the Home Buyers Plan).

- Out of about 300,000 first-time buyers per year, it is estimated that less than 20,000 get all of their down payment from family and perhaps 60,000 get 50% (or more) of the down payment from family.
- The home ownership rate in Canada rose for a generation, but began to fall after 2011, due to: growing dollar amounts required for down payments, very large amounts of required principal repayment that result from 25-year amortization schedules, and changing federal mortgage regulations that have reduced access to financing. The ownership rate is likely to continue to fall, with negative implications for the future financial wellbeing of Canadians.

Consumer Sentiment

Findings in this section include:

- Consumers generally agree (average score of 6.76 out of 10) with a statement that "low interest rates have meant that a lot of Canadians became homeowners over the past few years who probably should not be homeowners".
- But, responses to questions about their own circumstances, indicate that we have actually been somewhat cautious: consumers rate themselves well on their ability to weather a potential downturn in home prices (average rating of 6.81) or higher interest rates (average of 6.36) and they have low levels of "regret" about their own mortgage choices (a low average of 3.81 on a 10-point scale).
- There is a strong belief that "real estate in Canada is a good long-term investment" (an average of 7.34 out of 10) and agreement that mortgages are "good debt" (7.09).
- Canadians are neutral on whether this is a good time to buy a home or condominium, but they also indicate that they are slightly more likely to buy in 2020 than in 2019. The history of data from this question hints that there might be an actual expansion of sales activity.
- Expectations about house price growth have strengthened.
- By a very large margin, Canadian homeowners are happy with their decisions to buy their homes (91% are "happy"). To the extent that some of them regret the decision to buy, the regrets are about the particular property purchased (6%) rather than about homeownership in general (3%). This pattern holds for recent buyers.

Outlook for the Mortgage Market

Residential mortgage credit expanded by 5% during 2019 (an increase from 3.5% in 2018). Four major factors send mixed signals about growth for 2020:

- Canadians will continue to move away from communities with low house prices to higher-cost locales.
- There will be slightly less funding requirements from housing completions.

- On the other hand, resale activity is expected to expand and prices are forecasts to rise. Forecasts by the Canadian Real Estate Association imply at 15% expansion in the dollar volume of sales.
- Low interest rates will allow Canadians to continue to aggressively repay their mortgages.
- All of this considered, the growth rate for residential mortgage credit for 2020 is likely to be similar to 2019 (in the area of 5%).
- By the end of 2020 total outstanding residential mortgage credit might be $1.7 trillion.

Housing Market Trends

Strong fundamental conditions (rapid job creation since mid-2016, the fastest rate of population growth in a generation, and falling interest rates during the first half of the year) allowed home sales to strengthen during the second half of 2019. Yet, even by the fall, activity had returned to only an average level, when the strong fundamentals should have caused sales to exceed average levels (and by a considerable margin).

Housing shortages are resulting in obvious strains in many places across the country, including rapid price growth, low vacancy rates, and rent increases that exceed growth of tenants' incomes.

These housing shortages are increasingly having negative effects for our national wellbeing. There is an urgent need to expand housing production, across the entire spectrum of dwelling types, for both ownership and renting, and for a range of prices and rents. (Within the housing market discussion in this report, there is an argument that the division of the new supply between ownership and rental is less important than the total amount of production.)

The last 20 pages of this report briefly profile housing market conditions for each of the 10 provinces.

About Mortgage Professionals Canada

Mortgage Professionals Canada (MPC) is the national mortgage industry association representing over 11,500 individuals and 1,000 companies, including mortgage brokerages, lenders, insurers and industry service providers. Our members make up the largest and most respected network of mortgage professionals in Canada. MPC represents members' interests to government, regulators, media and consumers. Together with our members, the association is dedicated to maintaining a high standard of industry ethics, consumer protection and best practices.

The association ensures an effective and efficient mortgage marketplace by:

- Promoting consumer awareness of the benefits of dealing with the mortgage broker channel.
- Advocating for member interests on legislative and regulatory issues.

- Developing, monitoring and promoting responsible mortgage industry standards and conduct.
- Providing timely and relevant information to members and mortgage consumers.

About the Author

Will Dunning is an economist, and has specialized in the analysis and forecasting of housing markets since 1982. In addition to acting as the Chief Economist for Mortgage Professionals Canada, he operates an economic analysis consulting firm, Will Dunning Inc.

About Bond Brand Loyalty

Bond Brand Loyalty is a Canadian-owned global customer experience and engagement agency that specializes in building brand loyalty for the world's most influential and valuable brands. We build measurable, authentic, and long-lasting relationships through a combination of services that includes marketing research, loyalty solutions, customer experience measurement, marketing and management, customer analytics, live brand experiences, and proprietary technology platforms.

Disclaimer

This report has been compiled using data and sources that are believed to be reliable. Mortgage Professionals Canada, Bond Brand Loyalty, Will Dunning, and Will Dunning Inc. accept no responsibility for any data or conclusions contained herein.

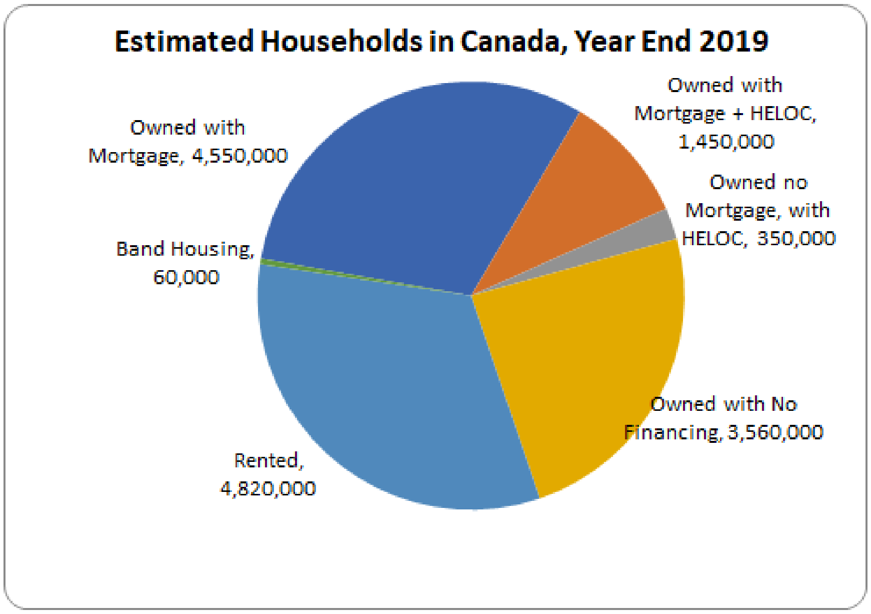
The opinions and conclusions in this report are those of the author and do not necessarily reflect those of Mortgage Professionals Canada or Bond Brand Loyalty.

2.0 Mortgage Choices

This section uses data from the consumer survey to highlight consumer choices in the mortgage market.

Dimensions of the Mortgage Market

There are currently about 14.79 million households in Canada[4], including:



- 9.91 million homeowners, of whom 6.0 million have mortgages. Of these, 1.45 million also have Home Equity Lines of Credit (HELOCs) and 4.55 million have a mortgage without a HELOC.
- 3.91 million homeowners have no mortgages. Of these, 350,000 have HELOCs and 3.56 million have neither a mortgage nor HELOC.
- Combining data on two groups of HELOC holders (with and without other mortgages), about 1.8 million homeowners have a HELOC.
- There are about 4.82 million tenants.
- 60,000 households are living in band housing.

Fixed-Rate Vs Variable-Rate Mortgages

As is shown in the table on the next page, the study found that 74% of mortgage holders (4.46 million out of 6.0 million) have fixed-rate mortgages, 21% (about 1.25 million) have variable-rate or adjustable-rate mortgages, and 5% (290,000) have "combination" mortgages, in which part of the payment is based on a fixed rate and part is based on a variable rate.

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[4] The estimate of total households (and the division between ownership and renting) is based on data from Statistics Canada's 2016 Census, updated using data on housing completions from Canada Mortgage and Housing Corporation. The estimates of types of finance are derived from our consumer survey, augmented with Bank of Canada data on growth of mortgage indebtedness and data from the Canadian Bankers Association on numbers of mortgages held by is members. In the 2019 survey, the estimates yield an unusually low share of owners who have HELOCs without another mortgage (350,000 versus 490,000 in 2017 and 500,000 in 2018), and owners that have both a mortgage and a HELOC (1.45 million versus 1.6 million in 2018 1.52 million 2017).

As is shown in the first column of the table, among mortgages for homes that were purchased during 2019, fixed-rate mortgages were chosen by 85%. For mortgages that have been renewed during 2019, the fixed-rate share is also 85%. During 2019, average rates were essentially equal for fixed-rate mortgages and variable-rate mortgages (both on 5-year terms), and during the second half of the year, typical "special offer" rates were lower for fixed rates than for variables. The lack of a cost advantage for variable rates, and with expectations for most of the year that variable rates were unlikely to fall for some time, caused a large majority of active borrowers to choose the security of a fixed rate (for borrowers that did not take or renew a mortgage during the year, the share for fixed rates was substantially lower, at 71%).

Table 2-1
Percentages of Mortgages by Type,
for New Purchase Mortgages and Recent Renewals

Mortgage Type	*Purchase During 2019*	*Renewal or Refinance During 2019*	*Did Not Purchase or Renew/ Refinance During 2019*	*All Mortgages*
Fixed Rate	85%	85%	71%	74%
Variable or Adjustable Rate	12%	8%	24%	21%
Combination	3%	7%	4%	5%
All Types	100%	100%	100%	100%

Source: Mortgage Professionals Canada survey, Yearend 2019; Analysis by the author.
Note: totals may not add to 100% due to rounding.

Mortgage Amortization Periods

A large majority of home owners' mortgages in Canada have contracted amortization periods of 25 years or less. The last column of the next table indicates that 89% of the mortgages have original contracted periods of no more than 25 years and 11% have contracted periods exceeding 25 years.

For homes that have been purchased recently (during 2015 to the present), the proportion with amortization periods exceeding 25 years (at 12%) is virtually the same as for all purchase periods. Looking even more closely, for purchases that occurred during 2018 or later (that is, after the OSFI stress test took effect), 14% have amortization periods exceeding 25 years.

The data indicates that average contracted amortization periods have been extended slightly over time: the average for the most recent buyers (2015 to the present) is 22.0 years, which is a bit longer than the average of 21.2 years for all mortgage holders (for purchases during 2018 or later, the average is 22.2 years).

Table 2-2 *Percentages of Mortgages by Length of Original Amortization Period,* *By Period of Purchase*							
Amortization Period	*Before 1990*	*1990-1999*	*2000-2004*	*2005-2009*	*2010-2014*	*2015-2019*	*All Purchase Periods*
Up to 24 Years	36%	53%	40%	40%	36%	30%	37%
25 Years	61%	42%	55%	43%	49%	58%	52%
26-30 years	2%	4%	5%	12%	12%	12%	9%
More than 30 Years	0%	1%	1%	5%	3%	0%	2%
Total	100%	100%	100%	100%	100%	100%	100%
Average Amortization Period	20.7	19.5	20.7	21.9	21.4	22.0	21.2
% Exceeding 25 Years	2%	5%	5%	17%	15%	12%	11%
Source: Mortgage Professionals Canada survey, Yearend 2019; Analysis by the author. Note: totals may not add to 100% due to rounding.							

Actions that Accelerate Repayment

The Mortgage Professionals Canada survey asked homeowners who have mortgages about actions that can change the number of years it takes to pay off a mortgage. Three different actions were listed. The responses are summarized in the next table. Almost one-third (32%) of mortgage holders (1.9 million out of 6.0 million) took one or more of these three actions during the past year. As is shown in the table, the survey data indicates that the most recent buyers (2015 to 2019) are just as likely to take one or more of these actions to accelerate repayment. Moreover, as is shown below, recent buyers make the largest efforts in dollar terms.

Table 2-3 *Actions Taken in the Past Year to Shorten Amortization Periods,* *by Period of Purchase*					
Period of Purchase	*Increased Amount of Payment*	*Made a Lump Sum Payment*	*Increased Frequency of Payments*	*Took One or More of these Actions*	*Took None of these Actions*
Before 2000	13%	6%	8%	25%	75%
2000-2004	19%	13%	5%	29%	71%
2005-2009	21%	14%	5%	34%	66%
2010-2014	18%	16%	5%	33%	67%
2015-2019	16%	17%	7%	33%	67%
All Purchase Periods	17%	15%	6%	32%	68%
Number Taking Action (1)	1,000,000	900,000	350,000	1,925,000	4,075,000
Source: Mortgage Professionals Canada survey, Yearend 2019; Analysis by the author.					

This data shows only actions taken during the past year. Our survey hasn't yet asked mortgage borrowers about whether they have ever taken these actions: that would show that a higher percentage of borrowers have taken steps to shorten their amortization periods.

A deeper dive into this data looked at additional efforts made by mortgaged home owners who purchased their homes during 2015 to 2019, by the length of the original amortization period. This data shows that these efforts are made most frequently by those with amortization periods shorter than 20 years. Mortgage holders with amortization periods longer than 25 years also made these efforts at an above-average rate.

Table 2-4
Actions Taken in the Past Year to Shorten Amortization Periods, by Contracted Amortization Period, for Buyers Who Purchased During 2015 to 2019

Originally Contracted Amortization Period (Years)	*Took One or More of the Actions*
1-19	50%
20-24	30%
25	29%
More than 25	38%
All	32%

Source: Mortgage Professionals Canada survey, Yearend 2019; Analysis by the author.

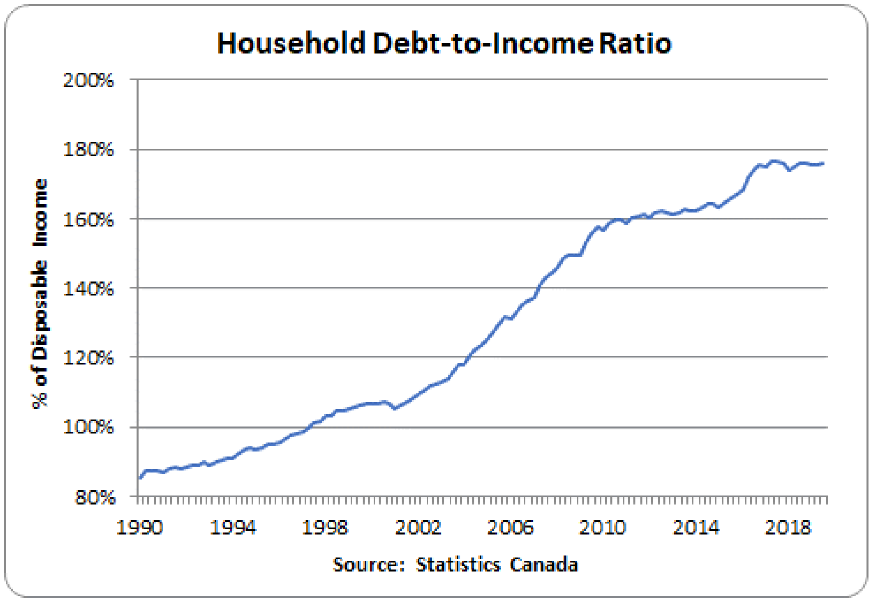
The survey also collected data on the dollar amounts of increased payments and lump-sum payments. Various survey data can be combined to estimate total amounts.

- About 1,000,000 mortgage holders voluntarily increased their regular payments during the past year. The average amount of increase was about $370 per month, for an estimated total of about $4.5 billion per year. This is the effect of increases that were made during the past year. In addition, voluntary increases that were made in prior years continue to contribute to accelerated repayment of mortgages. Among the most recent buyers (2015 to 2019), the average voluntary increase in payments was $395 per month, slightly exceeding the average amount of $370.
- About 900,000 made lump sum payments during the past year. The average amount was about $19,100, for combined repayment of $17 billion. Among recent buyers (2015 to 2019) the average lump sum amount ($20,000) was similar to the overall average.
- As shown above, 6% of mortgage holders (about 350,000) increased the frequency of their payments.

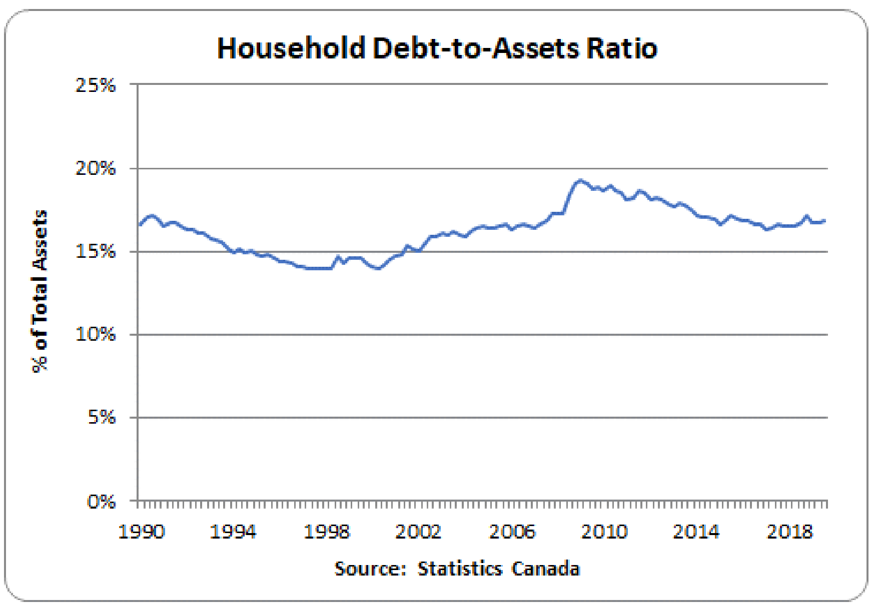
In addition, the survey has investigated lump sum payments made at the time that mortgages are fully paid-out. The survey data for this year indicates that about 150,000 mortgages were repaid during 2019. About 60% to 65% of mortgage retirements involve a lump sum payment, averaging about $65,000. Combining these factors, the total amount of these payments would be about $6 billion per year.

The Burden of Indebtedness

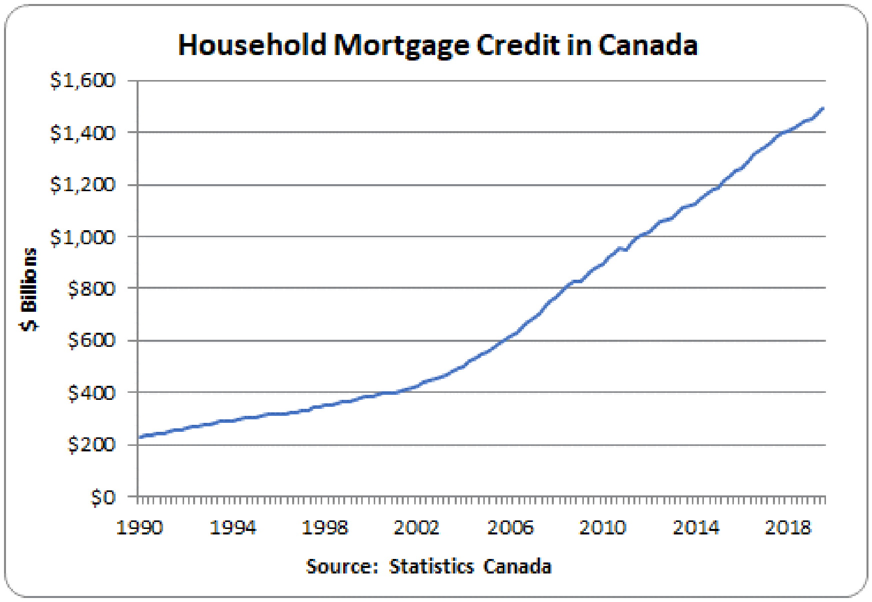
Canadians have become much more indebted. The ratio of household debt to disposable income rose sharply during 2001 to 2009. The ratio then increased gradually for about a half decade, then rose sharply during 2016, and has subsequently been flat. From the first quarter of 1990 up to the third quarter of 2019, household debt expanded from $349 billion to $2.29 trillion, an annualized growth rate of 6.6%.



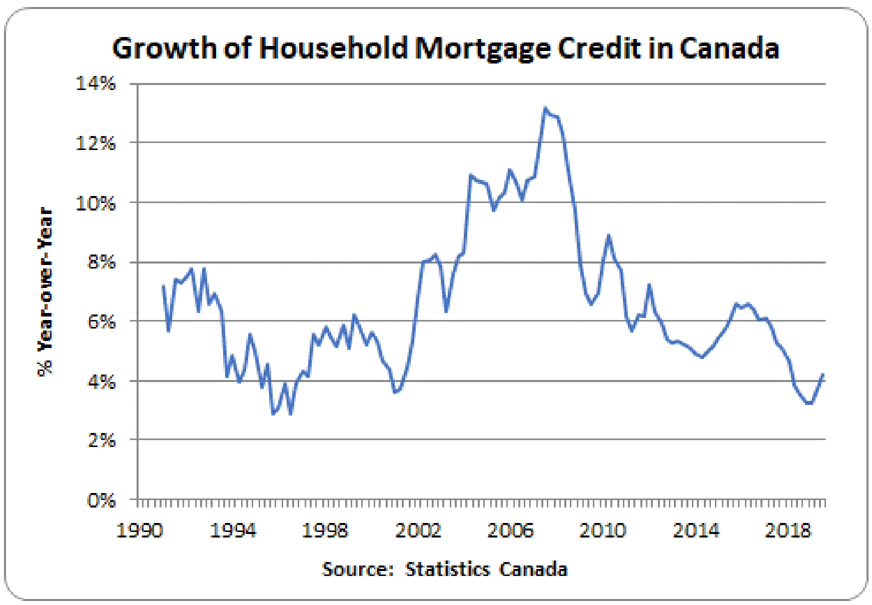
However, the expansion of indebtedness has been matched by growth of assets: the most recent ratio of households' debts-to-assets (16.8%) is just slightly above the long-term average (16.3% for the period shown in this chart). During the past decade, the ratio has improved (fallen) slightly.



Mortgage credit is the largest component of household debt (65%) and has accounted for a corresponding share of the growth. Total household mortgage credit rose from $227 billion at the start of the period to $1.49 trillion as of the third quarter of 2019 (an average rate of 6.6% per year).[5]



Rates of growth of mortgage credit have varied significantly over time. For the five years up to the 2008-Q3, mortgage credit expanded by an average of 11.0% per year. During the past five years (to 2019-Q3) the growth rate was 5.1%. For the past year, the growth rate was 4.2%. For the same period, the Bank of Canada data shows similar growth rates for the same periods.



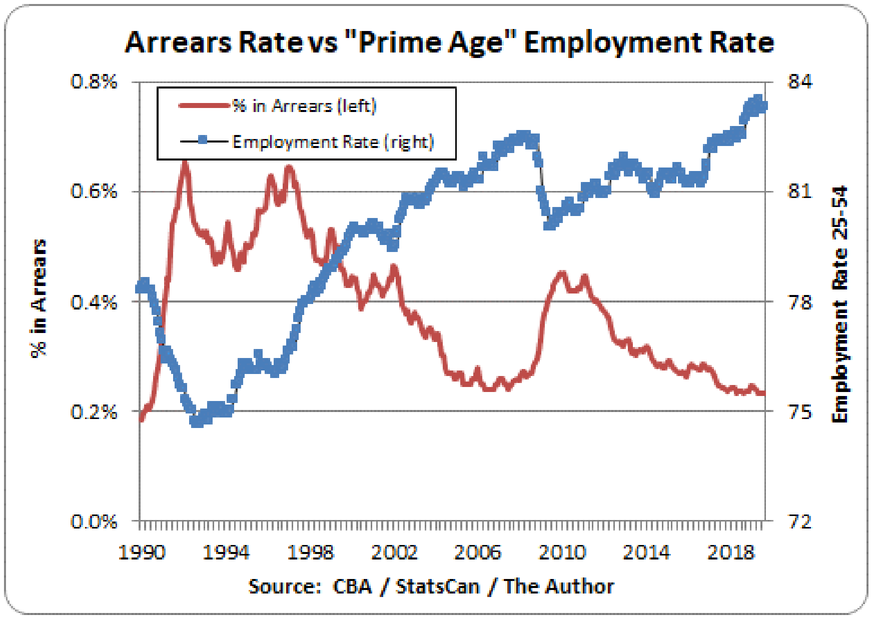
[5] This data is estimated by Statistics Canada (table 38-10-0234-01) and differs from the data on total residential mortgage credit that is published by the Bank of Canada (BoC, via StatsCan table 10-10-0129-01): as of the third quarter of 2019, Statistics Canada shows a total of $1.494 trillion while the BoC data shows a total of $1.605 trillion. The Bank of Canada includes residential mortgage debt that is owed by non-households. As well, these data may not capture mortgage debt that is owed to alternative lenders that are not included in the Statistics Canada and Bank of Canada surveys. The estimates of mortgage indebtedness that are generated from our consumer surveys differ in that they cover only mortgage debt related to owner-occupied principle residences and therefore exclude investment properties and second properties; on the other hand, our estimates may include mortgages owed to alternative lenders. For yearend 2019, our survey yields an estimate that outstanding residential mortgage credit for owner-occupied principal residences totals $1.45 trillion (including HELOCs).

Further commentary on the growth of mortgage credit, including the factors that drive growth, is contained in section 5.0 of this report.

In addition, while mortgage debt has risen relative to income, the burden of mortgage payments relative to income has varied over time. This is discussed in Section 3.0, in a subsection titled Homeownership as "Forced Saving".

Mortgage Arrears

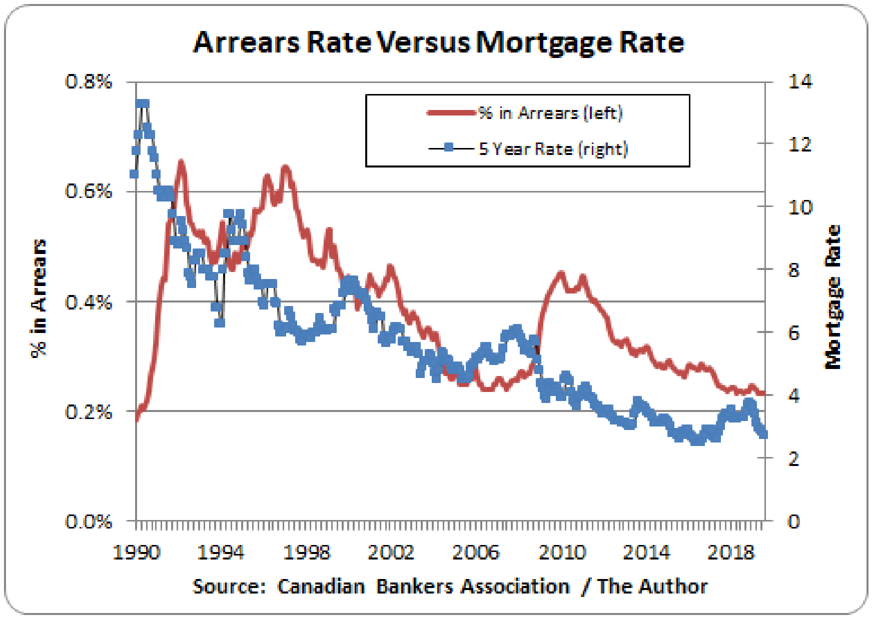
Data on mortgage arrears from the Canadian Bankers Association, which covers 10 major banks, shows that a very small percentage of Canadian mortgage holders are behind on their payments (this data shows mortgages that are three or more months in arrears). As of September 2019, the arrears rate of 0.23% (1-in-427 borrowers) is very low in historic terms.



In Canada, most mortgage defaults are due to reduced ability to pay, especially including job loss, but also income reductions due to reduced hours or reduced hourly pay rates. Marital breakdown can also reduce ability to pay. The chart above shows the importance of changes in the employment situation. It contrasts arrears rates with the Canadian "employment rate" (the percentage of adults in the "prime working ages" of 25 to 54 who are employed).[6] This data shows very clearly that changes – up or down – in the employment rate are followed in a few months by changes in the arrears rate (in the opposite direction). That relationship did weaken during the recovery period after the recession of 2008-09, as the arrears rate fell rapidly despite the fact that the employment rate was relatively flat. This occurred because exceptionally low interest rates made it easy to work through challenges. More recently, the relationship between the arrears rate and the employment situation has been reasserted: a

[6] The design of this chart has been changed compared to prior editions: previously the "all ages" employment rate was shown. However, the all ages employment rate has drifted downwards because more people have reached their retirement ages, and therefore the data has shown a distorted picture of the evolving situation for people who want to work. This data shows that an exceptionally strong employment situation has resulted in an exceptionally low arrears rate.

strengthening of the employment rate that began about mid-2016 was followed by a further drop in the arrears rate.[7]



Mortgage defaults can also be caused by unaffordable rises in mortgage costs. Contrasting the arrears rate with mortgage interest rates hints that there is a relationship: over the period shown in this chart, interest rates trended downwards and so did the arrears rate. But, in this chart there are several major episodes in which the relationship is "wrong", including the late 1990s when interest rates were falling and the arrears rate was rising. More recently, a rise in interest rates that began in July 2017 was not been followed by a material change in the arrears rate (in fact, the arrears rate fell fractionally). This data confirms that changes in the employment situation are much more important than movements of interest rates.

Statistical analysis (looking at the combined effects of interest rates and the employment situation) shows that the employment situation is much more important than mortgage interest rates. This is because a problem with increased mortgage costs can usually be solved if the borrower has a steady income (for example, rescheduling payments by extending the amortization period), whereas problems caused by the loss of a job are much more difficult to address.

Types of Mortgage Representatives Consulted

Mortgage holders were asked from which type of representative they obtained their current mortgage on their primary residence. For all current mortgages on homes, 54% were obtained from a bank (in the last column of data in the next table). Mortgage brokers had a 32% share, credit unions were the source for 10% of these mortgages, followed by 2% from life insurance or trust companies and just 2% from an "other" source. For recent homebuyers (the first column of

[7] For the technically-minded: regression analysis that looks at the combined effects of interest rates and the employment rate, using data for the past 15 years, estimates that a 1-point rise in the prime age employment rate reduces the arrears rate by 0.07 points. This is 13 times the effect of a 1-point rise in the mortgage interest rate (the impact on the arrears rate is less than 0.01 point). Moreover, the employment rate has a very strong statistical reliability (a t-statistic of 14.8) while the mortgage rate is not statistically reliable (t-statistic of 1.59).

data), 44% of mortgages were obtained from banks, 45% from mortgage brokers, 5% from credit unions, just 2% from life insurance and trust companies, and 4% from "other". For renewals and refinances, there was a higher tendency to use banks (65%). One-quarter of renewals and refinances occurred via mortgage brokers (27%), 7% were from credit unions. Life insurance and trust companies, and "other" were negligible sources for renewals (combining for just 2%).

Table 2-5
Consumers' Use of Mortgage Representatives

Type of Mortgage Representative	*Purchase During 2019*	*Renew or Refinance During 2019*	*Not Active During 2019*	*All Mortgage Holders*
Mortgage Representative from a Canadian Bank	44%	65%	53%	54%
Mortgage Broker	45%	27%	31%	32%
Mortgage Representative from a Credit Union	5%	7%	11%	10%
Mortgage Representative from a Life Insurance or Trust Company	2%	1%	3%	2%
Other	4%	1%	1%	2%
Total	100%	100%	100%	100%

Source: Mortgage Professionals Canada survey, Yearend 2019; Analysis by the author.
Note: totals may not add to 100% due to rounding

Measured as a share of total mortgage principals, for purchases during 2019, banks account for 58%, mortgage brokers for 35%. The other categories of mortgage professionals account for 8%.

The 2018 survey had shown an unusual (low) broker share for new purchases (28%). This year's data (a 45% share) is consistent with other prior results (a 39% share for 2017, 43% for 2016, and 42% in the 2015 survey). It appears now that the estimate last year was a statistical anomaly, which can happen in sample surveys. This new data confirms that the mortgage market remains competitive.

3.0 Financial Parameters

Interest Rates

The consumer survey collected data on mortgage interest rates for current mortgage holders. The average mortgage interest rate for these mortgage borrowers is 3.14% as of the end of 2019, which is a small increase from the 3.09% figure seen for 2018.

Very few residential mortgages in Canada have high interest rates. In this survey, only 4% of mortgages have interest rates of 5% or more and less than 1% have rates of 8% or more.

The next table looks at average mortgage interest rates by type of mortgage, for all mortgages and for three subsets: mortgages for homes purchased during 2019, renewals during this year, and mortgages for which there was neither an initiation nor renewal. This survey data shows that for mortgages that were initiated or renewed during 2019, interest rates are generally quite close to the average for all mortgages.

The author's opinion-estimate is that for all of 2019, the average typical advertised rates for both variable/adjustable rate mortgages and five-year fixed rate mortgages were 3.0%.

Table 3-1
Average Mortgage Interest Rates

Activity During 2019	*Mortgage Type*			*All Types*
	Fixed Rate	*Variable or Adjustable Rate*	*Combination*	
Purchases During 2019	3.12%	3.16%	3.29%	3.14%
Renewals During 2019	3.06%	3.04%	3.05%	3.06%
Not Active During 2019	3.05%	3.54%	2.87%	3.16%
All Mortgages	3.06%	3.48%	2.97%	3.14%

Source: Mortgage Professionals Canada survey, Yearend 2019; Analysis by the author.

The survey also asked those who have renewed a mortgage what the interest rate was prior to renewal, and those rates have been compared to the mortgage borrower's current rates. The results are summarized in the next table. It shows that, among borrowers who renewed a mortgage during 2019, increases and decreases were offsetting, with the result that on average, there was no change in their interest rates. Just under one half had decreases, a similar share had increases, and 6% had no change in their interest rates.

Table 3-2 Changes in Mortgage Interest Rates for Mortgages Renewed During 2019			
Change in Interest Rate	*Fixed Rate*	*Variable or Adjustable Rate*	*Total*
% with Rate Decreased	46%	49%	46%
% with Rate Unchanged	6%	0%	6%
% with Rate Increased	48%	51%	48%
Total	100%	100%	100%
Average Change in Interest Rate (percentage points)	0.01	-0.01	0.00
Source: Mortgage Professionals Canada survey, Yearend 2019; Analysis by the author.			

Mortgage Rate Discounting

As was reported earlier, for new homes purchased during 2019, the average mortgage interest rate was 3.14%. During 2019, the "posted rate" for 5-year terms averaged 5.27%[8]. The much lower actual rates found by the survey confirm that there is a substantial amount of discounting in the mortgage market.

This section uses the survey data to generate an estimate of the extent of discounting.

The study group includes a wide range of mortgages, including a range of lengths of term to renewal, fixed-rate versus variable-rate mortgages, and mortgages that have been originated over a prolonged period. This results in a wide range of mortgage rates. In order to produce a meaningful summary of recently transacted interest rates, one subset of the study group was selected for further analysis:

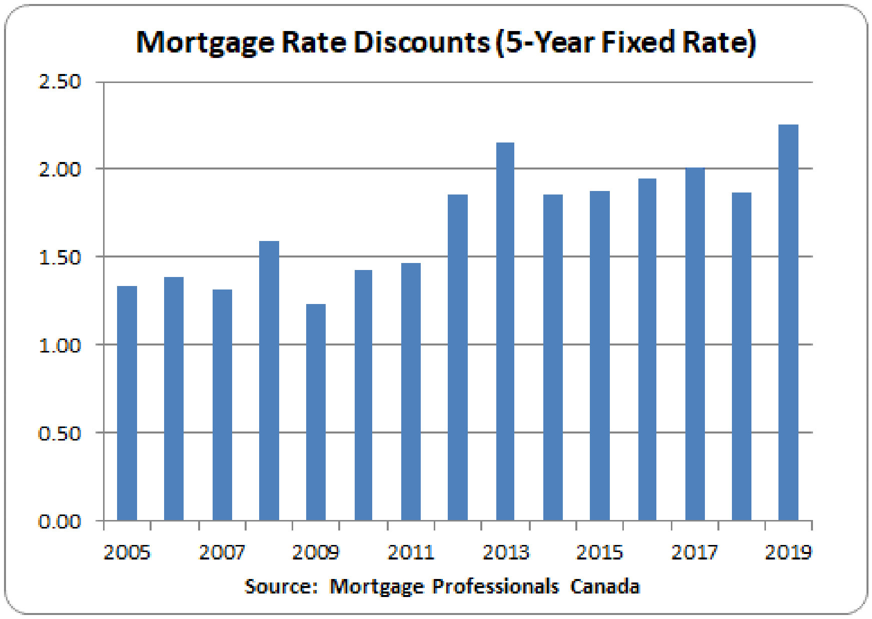
- Mortgages that were initiated, renewed, or refinanced during 2019.
- With fixed rates, rather than variable rates.
- With five-year terms.

For this group of mortgage borrowers:

- The average mortgage interest rate is 3.02%. In contrast, the average posted five-year mortgage rate over the same period was 5.27%. Based on this data it appears that Canadians negotiated mortgage rate discounts averaging 2.25 percentage points (for five-year terms). This is the highest average discount found in the history of this survey. It confirms that increasingly, the banks' posted rates are not being set in reference to the actual marketplace.

[8] Source: data on posted rates are obtained from the Bank of Canada "conventional mortgage" rates (estimated as of each Wednesday), averaged by the author.

- Within this subset of the database, only one of the responses had an actual interest rate equal to or higher than the average posted rate. All other reported rates were below 5%. In fact, 78% of the responses showed actual interest rates more than 2 percentage points below the posted rate for the year (in other words, the rates were below 3.27%).



Future Mortgage Renewals

Each year, slightly more than one-fifth of residential mortgages are renewed (an expected total of almost 1.3 million this year).[9] This section of the analysis looks at the current interest rates for mortgages, segmented by the anticipated periods of renewal, to draw tentative conclusions on future changes to mortgage interest rates when they are renewed. The data is summarized in the next table.

For the 650,000 mortgages that are expected to be renewed during the first half of this year, the current mortgage interest rate averages 3.06%. At the time of writing in early February, typical "special offer" rates from major lenders are in the area of 2.85% for 5-year fixed rate mortgages and 2.95% for 5-year variable rate mortgages. These are advertised rates: some borrowers may be able to negotiate lower rates. Therefore, on average, interest rates might fall slightly. However, looking at the distribution of mortgages rates, about one-third (31%) have a current interest rate below 2.75%, and some of these renewals might result in increased interest costs. One-quarter have current interest rates in the range of 2.75% to 2.99%, and most of these renewals should result in only small changes to interest rates. On the other hand, 44% of these near-future renewals have current interest rates of 3.0% or higher and some of these may negotiate lower rates when they renew.

[9] Not all existing mortgages will be renewed, because they will be fully repaid by the end of the current mortgage term: the survey data indicates that 7% of mortgage holders (about 400,000-425,000) expect that they will not renew their mortgages. During 2019, about 150,000 mortgages were fully paid off. During the next five years about 200,000 will be paid off each year. Out of 6.0 million existing mortgages, 2.0 million are expected to be fully paid off this decade.

For the second half of this year, the 650,000 mortgages that are due for renewal have a higher current average interest rate of 3.25%. A larger share (63%) have interest rates above below 3% and therefore may be able to negotiate reductions.

Table 3-3 *Current Mortgages Interest Rates, by Expected Period of Renewal, as of Yearend 2019*						
Current Interest Rate	*In the next 6 months*	*In next 7 months to 1 year*	*In the next 1 to 2 years*	*In the next 2 to 3 years*	*In the next 3 to 5 years*	*I don't expect to renew this mortgage*
Below 2%	2%	1%	0%	1%	2%	1%
2-2.24%	2%	3%	2%	5%	1%	3%
2.25-2.49%	7%	9%	12%	13%	4%	8%
2.5-2.74%	20%	16%	21%	21%	18%	18%
2.75-2.99%	25%	9%	25%	22%	23%	21%
3-3.24%	15%	23%	14%	12%	22%	17%
3.25-3.49%	10%	12%	8%	9%	9%	9%
3.5-3.74%	6%	15%	8%	4%	10%	9%
3.75-3.99%	5%	3%	4%	7%	5%	5%
4% and over	7%	9%	7%	7%	6%	8%
Total	100%	100%	100%	100%	100%	100%
Average Interest Rate	3.06%	3.25%	3.04%	3.07%	3.11%	3.14%
Source: Mortgage Professionals Canada survey, Yearend 2019; Analysis by the author. Note: totals may not add to 100% due to rounding.						

The impacts of higher interest rates will depend, of course, on the circumstances of the borrowers. Combining the data on pending renewals with other survey responses (and focusing on a subset of borrowers who expect to renew this year):

- 31% indicate that they are currently paying more than required. Therefore, they have some capacity to reduce their future payments, if their interest rates increase. Among those with the lowest current interest rates (below 2.5%), 39% are currently paying more than required.
- Almost three-quarters (72%) of the mortgage borrowers who expect to renew during the coming year are currently in a term of five or more years. The passage of time should have given most of these people more capacity to handle higher mortgage interest rates due to:
    - Substantial reductions in their mortgage principals through their regular payments as well as any additional efforts they have made (lump-sum payments and/or voluntary increases in monthly payments), meaning that the future interest rate will be applied to a smaller amount of principal.

    - Income growth. During the past five years, the average weekly wage in Canada has increased by 13%.
- There is a small minority of mortgage borrowers who will renew during the current year, whose current mortgage term is less than five years (and therefore may have seen limited income growth) who currently have low interest rates (below 2.5%) and are therefore may see substantial rises in their mortgage costs. Combining various data from this survey, this group represents less than 5% of mortgage holders who will renew during the current year. This at-risk group amounts to less than 1% of all mortgage holders (about 50,000 to 60,000 out of 6.0 million borrowers).

Higher interest rates will cause some degree of additional stress for some mortgage renewers this year. However, based on the survey data, it appears that a very large majority of them will be able to make adjustments and continue to fully meet their mortgage obligations.

For borrowers who are unable to afford their higher mortgage costs upon renewal (which the data suggests may be a very small minority), some may be able to renegotiate (lengthen) their repayment schedules, to reduce their required payments to levels that they can afford. This would be an outcome that they would not feel good about, but it would certainly be preferable to defaulting on their mortgages (being forced to sell their home or having it repossessed by their lender). Whether these best-in-the-circumstances outcomes can be arranged will depend on multiple factors, including the borrowers' circumstances, the attitudes of the lenders, and mortgage-related regulations established by the federal and provincial governments.

Data shown earlier on mortgage arrears hints very strongly that mortgage borrowers who have faced increased mortgage costs during the past few years have been able to successfully adjust. The arrears rate remains exceptionally low, at just 0.23%. It should be noted that this data from the Canadian Bankers Association includes data from 10 major mortgage lenders. It excludes data from other lenders, some of which may have mortgage portfolios that contain higher risks and may have higher arrears rates.

Housing Equity

The consumer survey provides data that can be used to generate estimates of home equity in Canada: the equity amounts are calculated by comparing the current value of owner-occupied homes in Canada (as estimated by the owners) with the associated mortgages and HELOCs.

The next table shows the estimates of equity positions for four groups of homeowners. In the current survey, the overall equity position is estimated at 73% (conversely, the average loan-to-value ratio is just 27%). In other words, for every $1,000 in house value in Canada, there is about $270 of debt (mortgage and/or HELOC) and $730 of homeowner equity. The data for yearend 2019 indicates that out of 9.91 million homeowners in Canada, about 8.7 million (88%) have 25% or more equity. On the other hand, about 450,000 (4% of homeowners) have less than 10% equity.

Two main findings have been consistent across these annual surveys:

- Prior surveys have consistently found that at least 85% of homeowners, have equity ratios of 25% or higher (this includes owners with housing related debt and those with no housing-related debt). This year, the figure is 88%.
- Even among the 6 million homeowners who have mortgages (with or without a HELOC), 81% have equity ratios of 25% or higher.

Combining data from the survey, the total value of owner-occupied primary residences in Canada is estimated at $5.28 trillion. Associated finance (mortgages and HELOCs) on these dwellings is estimated to total $1.45 trillion. In consequence, as of the end of 2019, total homeowner equity in Canada is estimated at $3.83 trillion[10].

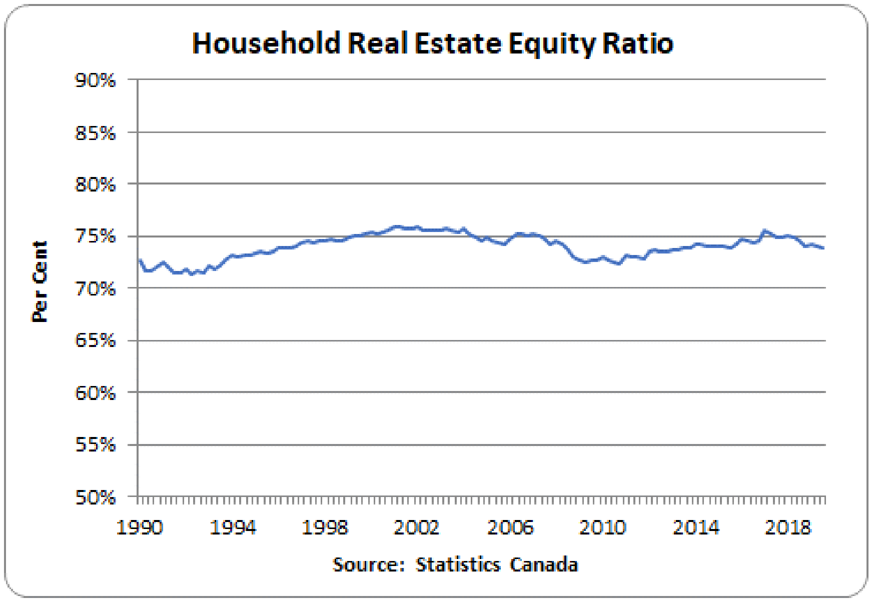
Table 3-4
Equity Ratios for Canadian Homeowners, as of Yearend 2019

Equity as Percentage of Home Value	*HELOC only*	*Mortgage only*	*Mortgage and HELOC*	*Neither Mortgage Nor HELOC*	*All Home Owners*
Negative Equity	0%	1%	5%	0%	1%
0-4.99%	0%	2%	1%	0%	1%
5-9.99%	0%	4%	3%	0%	2%
10-14.99%	0%	2%	4%	0%	2%
15-24.99%	0%	10%	6%	0%	6%
25-49.99%	5%	35%	34%	0%	21%
50-74.99%	18%	30%	23%	0%	18%
75-99.9%	61%	16%	22%	0%	13%
100%	16%	0%	0%	100%	36%
Total	100%	100%	100%	100%	100%
Number of Households	350,000	4,550,000	1,450,000	3,560,000	9,910,000
25% or more	100%	81%	80%	100%	88%
Average Equity Ratio	86%	52%	57%	100%	73%

Source: Mortgage Professionals Canada survey, Yearend 2019; Analysis by the author.
Note: totals may not add to 100% due to rounding.

[10] These calculations are for homes that are occupied by their owners as "principal residences". They exclude second homes (such as cottages), as well as investment properties and vacant dwellings. The estimates for 2019 are lower than in 2018 for total values ($5.28 trillion in 2019 versus $5.76 trillion in 2018), total equity ($3.83 trillion versus $4.28 trillion), and the equity ratio (72.5% versus 74.3%). Further examination suggests that this might be one of the occasional "artifacts" that can be produced by sample surveys: in the 2019 survey the average estimates of current market values were substantially lower than in the survey data for 2018. Data from CREA (resale prices) and CMHC (new home prices) both are at odds with the survey data, as they show price growth for 2019. Statistics Canada data estimates that the equity ratio has fallen slightly during the past year, from 74.5% as of 2018-Q3 to 73.9% as of 2019-Q3 (a reduction of 0.6 points versus the 1.8 point reduction estimated by our survey).

The estimates of home equity that have been generated by these surveys have been quite similar to estimates published by Statistics Canada. As is shown in the chart to the right, Statistics Canada estimates an equity ratio of 73.9% as of the third quarter of 2019. The Statistics Canada estimates have not shown much variation over time (as is the case for our estimates).



Another view of our survey data looks at how equity ratios vary according to the period of home purchase. As shown in the table below, for homes purchased in the 1990s or earlier, the average equity ratio exceeds 90%. For the most recent purchases (2015 to 2019), the average ratio is 52%. Even among the most recent purchasers, 78% have 25% or more equity. For all of the purchase periods prior to 2010, 95% of home owners have 25% or more equity.

Table 3-5
Equity Ratios for Canadian Homeowners,
By Period of Purchase, as of Yearend 2019

Equity as Percentage of Home Value	*Before 1990*	*1990s*	*2000-2004*	*2005-2009*	*2010-2014*	*2015-2019*	*All Periods*
Negative Equity	1%	0%	1%	0%	1%	2%	1%
0-4.99%	1%	1%	0%	0%	0%	2%	1%
5-9.99%	0%	0%	2%	1%	0%	5%	2%
10-14.99%	0%	1%	0%	1%	1%	3%	2%
15-24.99%	1%	0%	0%	2%	5%	11%	6%
25-49.99%	3%	3%	5%	15%	20%	32%	21%
50-74.99%	6%	6%	9%	24%	21%	16%	18%
75-99.9%	5%	19%	21%	13%	13%	7%	13%
100%	84%	70%	61%	43%	39%	23%	36%
Total	100%	100%	100%	100%	100%	100%	100%
25% or more	98%	98%	96%	96%	93%	78%	88%
Average Equity Ratio	94%	92%	86%	77%	72%	52%	73%

Source: Mortgage Professionals Canada survey, Yearend 2019; Analysis by the author.
Note: totals may not add due to rounding

Utilization of HELOCs

Among Canadian homeowners who have HELOCs, not all of the available funds have been accessed. The survey data indicates that the average approved HELOC is $152,000, but the actual amount owed averages about $59,000. Based on these average amounts, and applied to an estimated 1.8 million Canadian households who have HELOCs, it is estimated that the total approved amount is $274 billion, while the total amount owed is $106 billion. As such, HELOC holders have, on average, accessed 39% of the available amounts. The survey found that 21% of HELOC holders do not currently owe anything on their HELOC. On the other hand, 10% have fully utilized the available HELOC.

Table 3-6
Percentages of Available HELOCs Advanced, as of Yearend 2019

% Advanced	*% of HELOC Holders*
0%	21%
0.1% to 10%	9%
10.1% to 25%	10%
25.1% to 50%	21%
50.1% to 75%	14%
75.1% to 90%	9%
90.1% to 99.9%	6%
100%	10%
Total	100%

Source: Mortgage Professionals Canada survey, Yearend 2018; Analysis by the author.

Equity Takeout

The survey data indicates that 8.6% of all homeowners (850,000 out of 9.91 million homeowners) took out equity from their homes within the past 12 months, by increasing the amount of the mortgage principal and/or borrowing via a HELOC. This is slightly lower than in prior years (the 2018 estimate was 10%; 9% was typical during 2015 to 2017).

The average amount taken out this year is estimated at a $72,000, indicating that the total amount taken out was $62 billion. Out of the $62 billion, $39 billion was via increases to mortgage principals and $22 billion was via HELOCs.

Those who took out equity were asked what they used the money for. In this edition of the survey, a new category of purpose was investigated: "To gift or lend money to a family member to purchase a home".

Some people indicated more than one purpose. Based on the responses, it is estimated that:

- $14.1 billion (23%) of the money would be used for debt consolidation or repayment.
- $23.8 billion (39%) would be used for renovation or home repair.
- $7.3 billion (12%) would be used for purchases (including spending for education).
- $11.4 billion (18%) is for investments.
- These responses indicate that a surprisingly small amount (just $1.4 billion, or 2%) is to gift or lend money to a family member to purchase a home.
- $3.6 billion (6%) is for "other" purposes.

Further analysis found that takeout was most frequent among owners who purchased during the decade of the 2000s.

Table 3-7
Percentages of Homeowners Taking Out Equity During the Past Year, by Period of Home Purchase

Period of Purchase	*% Taking Equity*
Before 1990	5%
1990s	8%
2000-2004	8%
2005-2009	15%
2010-2014	11%
2015-2019	8%
All Periods	8.6%

Source: Mortgage Professionals Canada survey, Yearend 2019; Analysis by the author.

The next table looks at equity take-out depending on current equity positions (that is, the position they have after the take-out). The first column of data shows that among home owners with low equity ratios, a substantial share did take out equity during the past year. But, the second column shows that, since most owners have large amounts of home equity, most of the people who do take out equity still have large equity positions: 21% of owners taking out equity have equity positions below 25%, about one-third (34%) have positions in the range of 25-49,9%, and 45% have 50% or more equity. Out of 850,000 who took out equity, about 175,000 have an equity ratio below 25% and 675,000 have 25% or more equity.

Table 3-8 Equity Take-out During the Past Year, by Equity Positions		
Equity as Percentage of Home Value	*% Taking Out*	*% of Total Who Took Equity*
Less than 10%	20.3%	7%
10-14.99%	32.1%	4%
15-24.99%	21.3%	9%
25-49.99%	20.7%	34%
50-74.99%	14.4%	20%
75-100%	4.4%	25%
Total	8.6%	100%
Source: Mortgage Professionals Canada survey, Yearend 2019; Analysis by the author. Note: total may not add to 100% due to rounding.		

Home Renovations

This edition of the survey investigated renovation activity by home owners. The first table below indicates that 53% of home owners have ever renovated their current home (approximately 5.2 million out of 9.91 million home owners). Not surprisingly, the share is highest for people who have been in their homes for the longest periods of time. The second column shows that 29% of home owners (or approximately 2.9 million out of 9.91 million owners) renovated their home during 2015 to 2019. This data shows that among the owners who purchased their home during 2015 to 2019, 36% have renovated the homes. Among the other purchase periods, the shares who have renovated recently are lower.

The survey data indicates that home owners who have renovated recently spent an average of $34,000. For the 2.6 million renovators, the total expenditure during the five year period was about $97 billion[11].

[11] Statistics Canada reports much larger values for residential renovation (close to $60 billion per year), but those figures cover a broader range of activity, including renovations on properties owned by contractors or investors, rental dwellings, and vacation properties.

Table 3-9 *Percentages of Home Owners Who Have Renovated Their Current Homes, by Period of Purchase*			
Period of Purchase	*Per Cent of Home Owners Who Renovated*		*Average Expenditure For Owners Who Renovated During 2015-2019*
	Any Period	*During 2015-2019*	
Before 1990	80%	20%	$40,000
1990-1999	77%	36%	$42,000
2000-2004	64%	21%	$49,000
2005-2009	61%	31%	$29,000
2010-2014	45%	26%	$42,000
2015-2019	37%	36%	$26,000
Total	53%	29%	$34,000
Source: Mortgage Professionals Canada survey, Yearend 2019; Analysis by the author.			

The home owners were asked which types of renovations were done (they could select as many items as applied, from a list of six). Most of the consumers indicated that they had completed more than one type of renovation.

Table 3-10 *Types of Home Renovations, For Renovations During 2015 to 2019*		
Type of Renovation	*% Mentioning*	
	All Purchase Periods	*Purchased 2015-2019*
Maintenance and Repair (e.g. window or door replacement, landscaping, roof replacement, foundation repairs, plumbing or electrical repairs, etc.)	72%	64%
Expansion (e.g. finished basement or attic, addition of rooms or levels, etc.)	26%	19%
Energy Efficiency (e.g. energy-efficient lighting or insulation, addition of solar panels, etc.)	39%	29%
Cosmetic changes (e.g. painting, finishes, etc.)	77%	74%
Updates (e.g. kitchen, bathroom, landscaping, flooring, etc.)	75%	64%
Other	5%	6%
Source: Mortgage Professionals Canada survey, Yearend 2019; Analysis by the author.		

They were also asked about reasons for renovations (once again, selections were made from a list and more than one reason could be selected). By far, the most common reason was "personal preference". Increasing the value of the home was mentioned by a substantial minority. Safety and protecting the physical integrity of the home were each mentioned by about one-fifth of the renovators.

Table 3-11 Reasons for Home Renovations, for Renovations During 2015 to 2019		
Reason for Renovations	*% Mentioning*	
	All Purchase Periods	*Purchased 2015-2018*
Increase the value of my home for resale	37%	39%
Add additional space for myself/my family	17%	16%
Add additional space to rent out a portion of the home	3%	5%
Upgrade the home for my personal preference	82%	77%
Necessary work for safety	17%	20%
Protect the physical integrity of the building	20%	19%
Other	4%	5%
Source: Mortgage Professionals Canada survey, Yearend 2019; Analysis by the author.		

Down Payments by First-Time Homebuyers

Starting with the fall 2014 report, this survey has explored down payments made by first-time buyers. In each report, we have calculated the percentage down payments, segmented by the periods of purchase. The responses indicate that down payment amounts has been relatively stable over time, at about 20%, as is shown in the first column of data. The second column shows that among the most recent first-time buyers, fewer are making down payments of less than 20% (and therefore more are making down payments of 20% or more). This may be related to three events that have made insured mortgages less attractive, and thereby encouraged home buyers to increase their down payments to more than 20%, to avoid mortgage insurance. Firstly, since 2012, mortgage insurance has no longer been allowed for mortgage amortization periods that exceed 25 years, and this caused a drop in the share with low down payments for the 2010-2014 period. Secondly, the stress test has applied to all insured mortgages since the fall of 2016, but the stress test for non-insured mortgages didn't start until the beginning of 2018. Thirdly, large increases in the cost of mortgage insurance took effect early in 2017.[12]

The survey data also indicates that a small minority (4%) of first-time buyers made down payments equal to 100% of the purchase price.

[12] Effective March 17, 2017, the insurance premium rates increased as follows: for mortgages with loan-to-value ratios ("LTV") in the range of 80.1% to 85%, the premium increased from 1.8% to 2.8%; for LTVs from 85.1% to 90%, the premium rose from 2.4% to 3.1%; for LTVs from 90.1% to 95%, the premium rose from 3.6% to 4.0%. Premium rates also increased for LTVs of 80% or lower.

Table 3-12 Average Down Payment for First-Time Homebuyers, by Period of Purchase		
Period of Purchase	*Average % Down-Payment*	*% With Down Payment of Less than 20%*
Before 1990	20%	65%
1990-1999	22%	63%
2000-2004	18%	68%
2005-2009	20%	68%
2010-2014	23%	60%
2015-2019	24%	49%
Total	21%	61%
Source: Mortgage Professionals Canada survey, Yearend 2019; Analysis by the author.		

Sources of Down Payments by First-Time Homebuyers

The survey has also investigated sources of the funds that first-time buyers have used for down payments. The survey listed six sources, plus an "other" category. Most first-time buyers use more than one source of funds: less than one-half (45%) of first-time buyers used only one source. A further 36% used two sources, and 19% used three or more sources. On average 1.8 sources have been used. This figure has increased over time: for people who bought their first home prior to 2000, the average was 1.6 sources; for the most recent first-time buyers (2015 to 2019), the average is 2.1 sources. The next two tables summarize the data on sources of down payments.

The first table looks at whether each source was used. The first column of data indicates that consistently over time, a large majority of buyers has relied to some extent on their own savings, and therefore there have been few first-time buyers who did not bring any of their own savings: for all periods of first-time purchases, 84% of the buyers brought their own savings (thus, only 16% brought none). The survey data indicates that the share is even higher for the most recent buyers (2015 and later): in this group, 88% brought some of their own savings.

Deeper examination finds that for all periods of first-time purchases, 33% of the buyers relied solely on their own savings. For the most recent buyers, the share is only slightly lower, at 29%.

Looking at the next column of data, 27% used a gift from family members (again, for part of or all of the down payment) and 15% used a loan from a family member. These shares have increased over time. As house prices have escalated and down payments have increased, first-time buyers have become more likely to rely on gifts from family to augment their own savings. At the same time, the parents might be more able to provide assistance, because of the considerable growth that has occurred in the value of the parental home. As well, because the time required to save a down payment has lengthened (as is discussed in the next section), parents might be more anxious to help their children. The Bank of Mom and Dad is certainly playing a more important role, but the size of that role might not be as large as is sometimes believed.

- The data in this table shows that an increased share of first-time buyers is receiving assistance from family: for the most recent buyers, 40% received gifts and 20% received loans from family (those two numbers can't be added: 13% received both a gift and a loan, so that in total 47% received a gift and/or a loan).
- The figures on gifts and loans in the first table show that families are now providing assistance much more frequently than in the past. But, it remains true that the buyers receiving this help from family are also relying on other sources, and their own savings remains by far the most important source.
- A more detailed dive into the data found that a very small minority of buyers (just 3% for all periods and the same share for the most recent purchases) relied on gifts from family for 100% of their down payments. Only 11% of all first-time buyers relied on such gifts for one-half (or more) of their down payments. For the most recent buyers that share was 14%.
- Just 2% used loans from families for 100% of the down payment. Only 5% relied on loans from family for one-half (or more) of their down payment. For the most recent buyers the figure is similar, at 6%.
- Combining estimates, and assuming that there are about 300,000 first time home purchases per year, 5-6% (less than 20,000) are relying on family for their entire down payment (via gifts and loans). About 20% (60,000) are getting one-half (or more) of their down payment from family.

Table 3-13
First-Time Buyers Use of Down Payment Sources, by Period of Purchase

Period of Purchase	*Personal savings or co-buyer's personal savings*	*Gift from parents/ other family members*	*Loan from parents/ other family members*	*Loan from a financial institution*	*Loan from my employer*	*Withdrawal from RRSP (including Home Buyers' Plan)*	*Other*
Before 1990	85%	21%	14%	30%	3%	9%	7%
1990s	78%	22%	9%	26%	2%	21%	2%
2000-04	85%	23%	17%	27%	2%	37%	4%
2005-09	81%	24%	14%	28%	3%	39%	3%
2010-14	81%	30%	13%	21%	2%	37%	4%
2015-19	88%	40%	20%	26%	6%	32%	3%
Total	84%	27%	15%	27%	3%	24%	4%

Source: Mortgage Professionals Canada survey, Yearend 2019; Analysis by the author.

The next table makes a different calculation: the percentages of the dollar amounts that come from each of the sources. This data shows that support from family amounts to 21% of the total down payment for the most recent buyers (this includes 15% in the form of gifts and 7% in the form of loans). The 21% share is higher than the long-term average of 17%, but it remains a minority source of funds.

In the table above it was seen that the share of first-time buyers who utilize their own savings has not been reduced, and now the table below shows that the total share that comes from their own savings has not changed materially, as it still accounts for more than one-half of total down payment funds.

Loans from financial institutions has historically been an important source, although the share has fallen during the past decade. For the most recent buyers, the share from financial institutions is 13%.

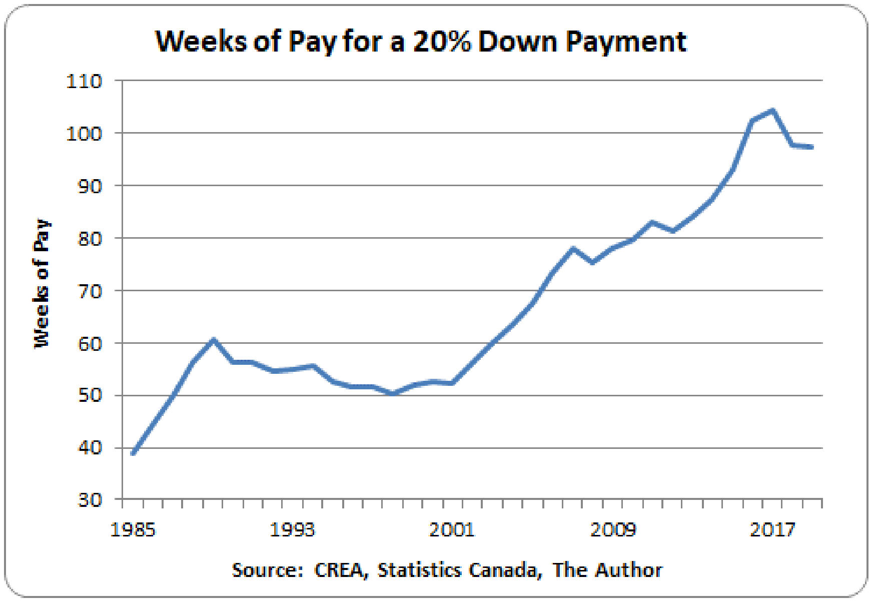
The share of down payments provided by withdrawals from RRSPs peaked a decade ago and has fallen for recent first-time buyers. This is because the maximum amounts allowed under the "Home Buyers' Plan" (which allows tax-free access to RRSP funds, starting in 1992). have not kept up with rising prices. The combination of personal savings plus RRSP withdrawals (to represent the buyers' own resources), has averaged 63% for all periods of first-time purchases, and for the most recent first-time buyers. In the 2019 federal budget, the withdrawal limit was raised to $35,000 per person from the prior $25,000. In future years, this might slightly raise the share taken from this source.

Table 3-14
Shares of Down Payment Funds for First-Time Homebuyers, By Source, by Period of Purchase

Period of Purchase	*Personal savings or co-buyer's personal savings*	*Gift from parents/ other family members*	*Loan from parents/ other family members*	*Loan from a financial institution*	*Loan from my employer*	*Withdrawal from RRSP (including Home Buyers' Plan)*	*Other*	*Total*
Before 1990	55%	9%	7%	21%	1%	3%	4%	100%
1990s	54%	12%	4%	19%	0%	10%	1%	100%
2000-04	50%	8%	6%	16%	0%	17%	2%	100%
2005-09	45%	10%	6%	17%	0%	18%	3%	100%
2010-14	54%	12%	4%	13%	1%	14%	2%	100%
2015-19	52%	15%	7%	13%	1%	11%	2%	100%
Total	53%	11%	6%	17%	1%	10%	3%	100%

Source: Mortgage Professionals Canada survey, Yearend 2019; Analysis by the author.
Total may not add to 100% due to rounding.

The Rising Cost of Down Payments



Previous editions of this report have discussed that deep reductions for interest rates have created "space" in which house prices could rise more rapidly than incomes, and still be affordable. But, the rapid rise in house prices has made it more difficult to save down payments. The chart explores this. It results from comparing the dollar amounts for 20% down payments (based on the average resale house price, reported by the Canadian Real Estate Association) versus average weekly earnings (as reported by Statistics Canada). It now takes about twice as long to save for a down payment as it did two decades ago.

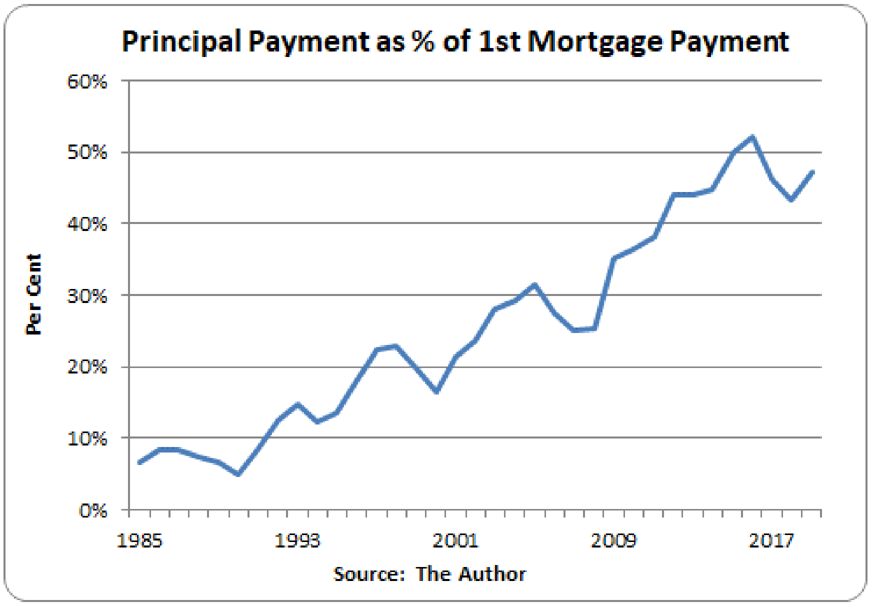
This is a simplistic presentation, as potential first-time homebuyers do not save all of their income (obviously). Moreover, most of them do not have average incomes or buy average-priced homes. In consequence, actual times required to accumulate down payments will vary. For many prospective first-time home buyers, the time required will be longer than the periods shown, depending on individual circumstances.

Job creation is one of the two main drivers of homebuying activity (the other being interest rates and affordability). History shows that it takes time for jobs to actually result in purchases, because of the amount of time required to save down payments. Higher house prices are causing those delays to become even more prolonged.

Homeownership as "Forced Saving"

Mortgage payments include a blend of interest and repayment of principal. At the start of a mortgage, the blend between principal and interest depends on the interest rate (and, of course, on the amortization period). At lower interest rates, the monthly payments include a higher amount of principal repayment, as a percentage of the monthly payment.

During the past three decades, mortgage interest rates have trended downwards, which has caused the mix to shift. At the 2019 average interest rate of 3.02%, 47% of the first payment is repayment of principal.[13]



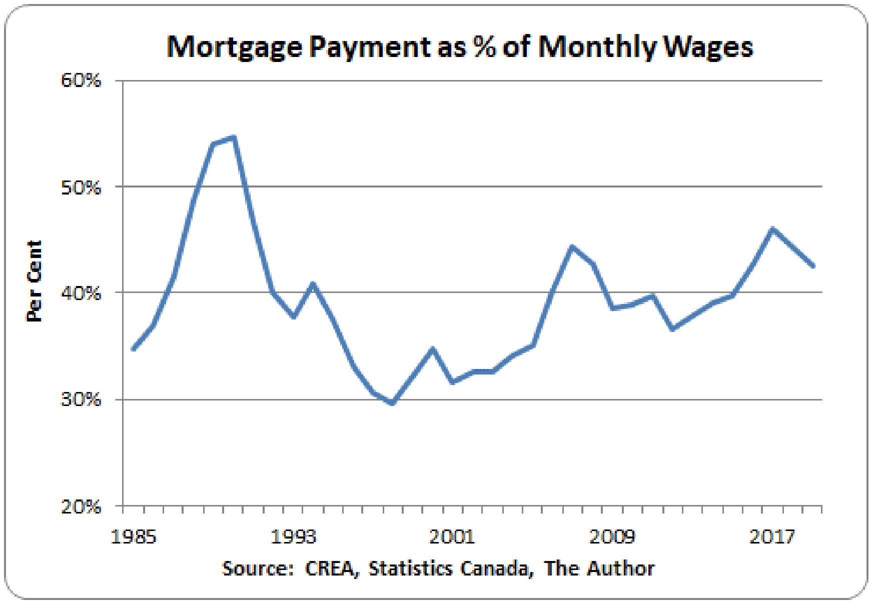
A set of charts below looks at how mortgage costs have evolved over time, and the division of those costs between interest and principal repayment – as of the very first mortgage payment. In these charts:

- It is assumed that the mortgage amount is 80% of the average resale house price.
- The mortgage interest rates are the author's opinion-estimates of typical "special offer" rates that are advertised by major lenders.
- The amortization period is 25 years.
- Monthly income is derived from average weekly wages as measured by Statistics Canada's Survey of Employment, Payroll and Hours.

These calculations result in relatively high cost-to-income-ratios, in large part because they assume just one income, whereas a large share of home buying households have two (or even more) income earners. The reader should look at how the data has changed over time, rather than at the levels of the estimates.

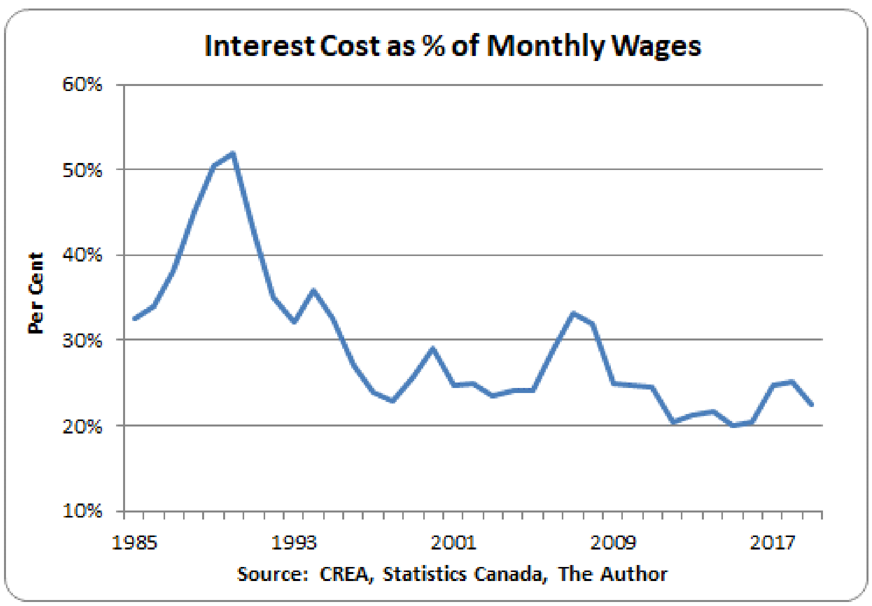
[13] In this chart it is assumed that the amortization period is 25 years, and the interest rates are the author's opinion-estimates of "special offer" rates from major lenders for five-year, fixed-rate mortgages.

The first chart looks at the total mortgage payment relative to the assumed income. As of 2019, the ratio of mortgage cost to income is 42.5%, which is above the average of 39.2% for the entire period shown. On this basis, the monthly cost burden of ownership is currently higher than the historic average, but it is within the range that has been seen historically.

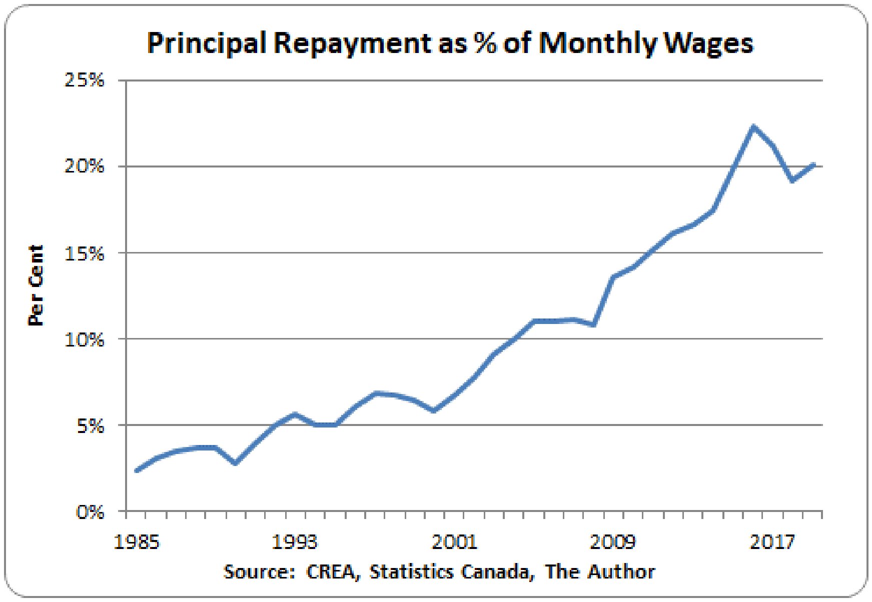


Recalling that mortgage payments are a mix of interest and principal, many homebuyers will surely consider the components: how much will they actually pay in interest versus how much they pay towards the principal.

The chart to the right shows that the interest burden (in relation to wages, as of the first month) has been far below the long-term average during the past decade. For 2019, the ratio was 22.4%, which is far below the long-term average of 29.3%. On this interest-only basis, for Canada as a whole housing affordability is very favourable.



The part of the payment that goes to principal should be viewed differently than the interest part. It is a form of saving (although it is "involuntary" or "forced" saving). The forced saving component of mortgage payments has risen sharply in relation to incomes. In 2019 forced savings via mortgage payments amount to 20.1% of monthly incomes, which is far above the long-term average of just 10.0%).



To conclude this discussion:

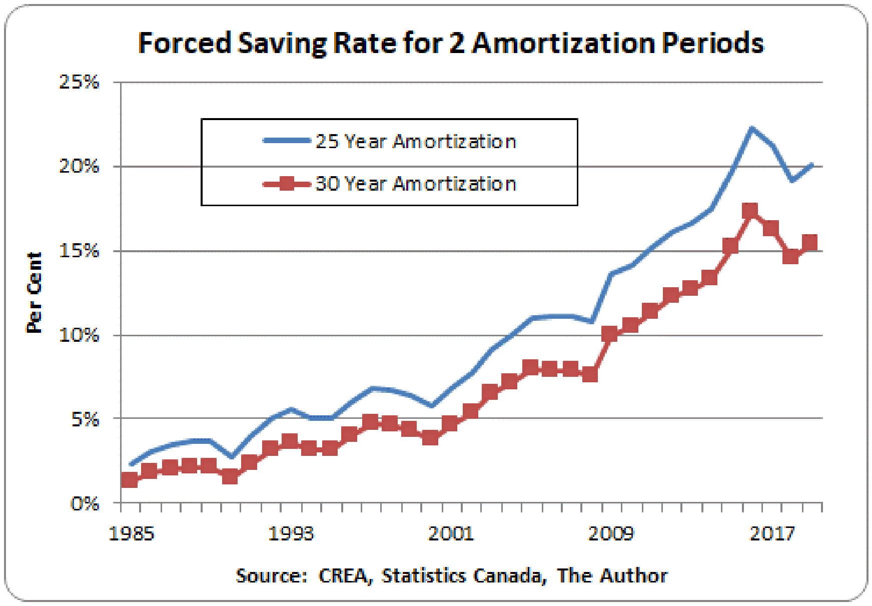
- The affordability of homeownership is usually calculated on a "gross" basis (considering the total blended mortgage payment of principal plus interest). On this basis, homeownership affordability was at an average level during 2009 to 2016, but has deteriorated since then.
- But, we should also consider affordability on a "net" (interest-cost) basis because, while principal repayment is a cost, it improves the homeowner's bottom line by reducing mortgage indebtedness. On this net basis, homeownership has been, during the past decade, very affordable.

Home ownership represents a very aggressive forced saving program. As a result (and even before we consider the impact of price growth) housing equity is built very rapidly.

This excellent "net affordability" goes a long way to explaining why home buying activity has remained strong in Canada, and why a large majority of Canadians see home ownership as financially better than renting, despite the rapid run-up in house prices and the higher burden of mortgage (principal plus interest) payments.

But, the large amounts of forced saving that occur through home ownership are indeed a burden in terms of consumers' cash flows, and this has impaired buying activity.

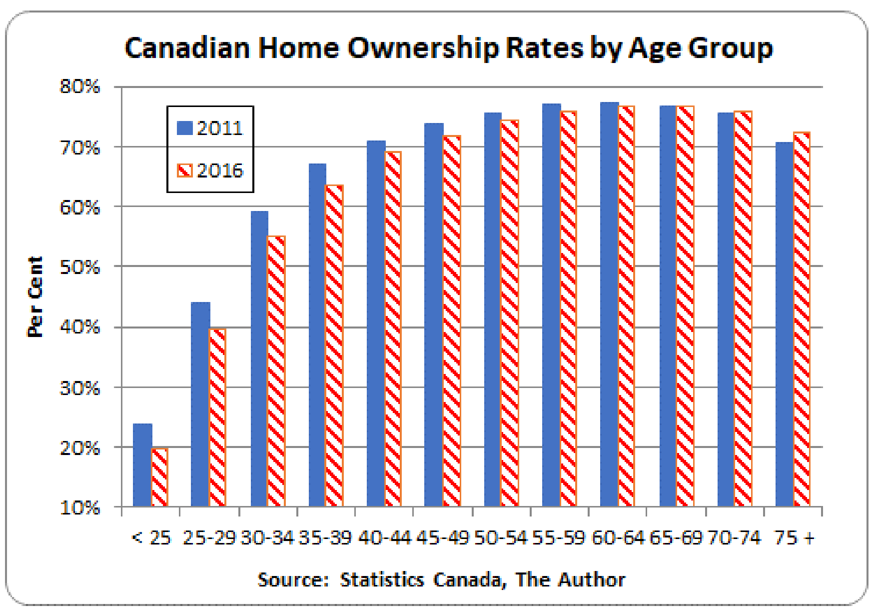
We need to talk about whether 25-year amortization places an unreasonable "forced saving" burden on prospective buyers, preventing too many of us from taking advantage of this very favourable "net affordability". Use of 30-year amortization would result in a forced saving rate of 15.4% for 2019, versus the 20.1% that results from 25-year amortization. This rate would still be very high, and continue to result in rapid accumulation of home equity.



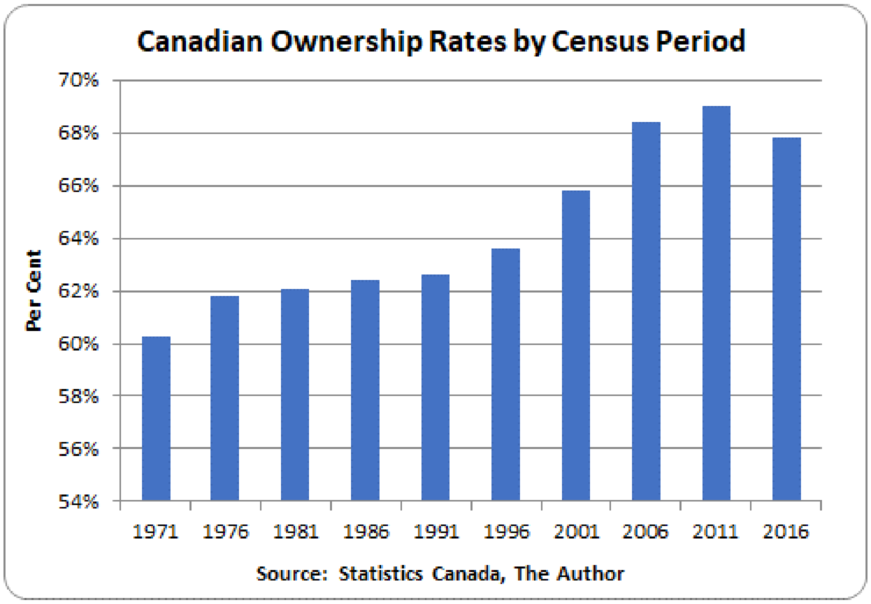
A Falling Home Ownership Rate in Canada

This section repeats analysis provided in prior editions of these reports. It concludes that the home ownership rate in Canada will very likely fall further during the coming years, for reasons that are largely avoidable. This will weigh heavily on young, middle-class Canadians, forcing them to stay in rentals longer than they would like and impairing their long-term financial well-being.

Data from the 2016 Census shows that the home ownership rate has fallen in Canada. The 2016 rate of 67.8% was 1.2 points lower than the 69.0% rate for 2011. As is shown in this chart, home ownership rates fell quite sharply for the youngest (first-time buyer) age groups. For the three youngest age groups, the drops were: 4.1 points, 4.6 points, and 4.2 points. Ownership rates also fell for the age groups covering 35 to 69 years, but rose for Canadians aged 70 and over.



This ends a generation-long rise in the ownership rate. The gradual rise in the ownership rate during 1976 to 1991 can be attributed to economic progress. The rapid rise during 1996 to 2011 was supported by on-going reductions in interest rates that began in the early 1990s, plus expansion and acceptance of lower-cost housing forms that made ownership feasible for more Canadians (including condominium apartments, as well as higher-density low-rise housing options, such as town homes).



Whether the drop in the home ownership rate in 2016 is a pause in a long-term trend or a reversal of the long-term trend remains to be seen, but the signs are not encouraging. The 2016 fall in the home ownership rate can be seen as the result of the two factors discussed above:

- The lengthening periods of time required to save down payments.
- Increased "forced saving", which has meant that even though interest costs remain highly affordable, sharply increased shares of income must be devoted to principal repayment.

As well, five changes made to mortgage insurance during July 2008 to February 2016, by making finance less available, impaired home buying activity.

Since the time of the 2016 Census, additional policies of the federal government (the stress test for mortgage insurance that took effect late in 2016 and the requirement by the Office of the Superintendent of Financial Institutions for stress testing, which took effect January 1, 2018) are adding to the difficulties faced by prospective home buyers.

4.0 Consumer Sentiment

Attitudes to Topical Questions

Since 2010, the consumer surveys have investigated attitudes on current issues related to housing markets and mortgages. The survey respondents have been offered various statements and asked to indicate the extent to which they agree or disagree with each, on a 10-point scale. A response of 10 would indicate complete agreement and a response of 1 indicates complete disagreement. Average responses of 5.5 out of 10 would indicate neutrality.

The next table summarizes responses, showing the histories of the average scores. The responses have changed relatively little over time.

- There has been moderately strong agreement that "low interest rates have meant that a lot of Canadians became homeowners over the past few years who should probably not be homeowners". The scores of 6.76 in both 2018 and 2019 are below the average seen during the 10-year history of this question (6.95 out of 10), and are the lowest scores recorded to date. Scores showed little variation across the country: we might expect that there would be more concern about this in the highest cost provinces, but that isn't the case.
- On the other hand, consumers seem to be satisfied with the mortgage choices they have made: they have low levels of regret about their mortgage choices (this question is asked only of mortgage holders). The average scores this year is higher than during 2015 to 2018, but at 3.81 for 2019 it is close to the average of 3.76 for the entire period. As house prices have increased rapidly and there has been similar rapid growth in average mortgage amounts, we might expect that recent buyers would have more regrets. But, in this year's survey, for buyers who purchased during 2015-2019, the average score of 3.96 is just slightly above the overall average of 3.81.
- As we have commented in prior years: the combination of these two questions poses a paradox: on a collective basis, consumers believe their choices have been responsible, but collectively they believe that other people are being irresponsible. This inconsistency suggests that these beliefs about "other people" are shaped by messages in the media and from pundits more so than by actual behaviour.
- Levels of regret about mortgages do not especially vary across the provinces: in the highest price provinces (British Columbia, at an average score of 3.87, and Ontario at 3.76) the scores are essentially equal to the national average of 3.81.
- Canadians' confidence about their ability to weather a downturn in the home prices had trended upwards over time, but there was a drop this year, to an average rating of 6.81 out of 10. This is fractionally below the historic average of 6.87. Again, responses show little variation across the country. In British Columbia, the average score was 6.69 and in Ontario, 6.81.
- Canadians have strongly agreed with the proposition that real estate is a good long-term investment. The average score this year (7.34) is fractionally above the historic average of

7.27. There are minor variations across the country. The lowest ratings are found in the three provinces that have seen soft home pricing (slight erosion) in the wake of the lower oil prices (but even in these provinces, the average ratings are well above the neutral level): average ratings this year were 6.84 in Alberta, 6.95 in Saskatchewan, and 6.89 in Newfoundland and Labrador. The highest rating was in Quebec (7.41) which has seen robust price growth during the past three years.

- The level of confidence about the economy is slightly above neutral this year, at 6.05 out of 10, but it is slightly below the historic average of 6.14. Looking across the country, confidence is below the neutral level in Alberta (5.05), Saskatchewan (5.33), and Newfoundland and Labrador (5.08). Above-neutral scores are found in PEI (6.39), Nova Scotia (6.51), New Brunswick (5.71), Quebec (6.48), Ontario (6.08), Manitoba (6.11), British Columbia (6.08).
- There is agreement that mortgages are "good debt". The figure for this year (7.09) is fractionally above the historic average of 7.05. Opinions show very little variation across the country.
- This year, we add a proposition that is a slight variation of an existing one. In response to the proposition "I/My family would be well positioned to handle a potential increase in mortgage interest rates", the average response was above neutral, at 6.36. This score is, however, notably lower than for thoughts about the effect of lower home prices. As is noted below, the most recent buyers have the least-positive attitudes about their ability to handle higher interest rates.

Table 4-1
Summary of Consumer Responses to Topical Question, by Year of Survey
(Average Scores on a Scale of 1 to 10)

	2010	*2011*	*2012*	*2013*	*2014*	*2015*	*2016*	*2017*	*2018*	*2019*
Low interest rates have meant that a lot of Canadians became homeowners over the past few years who should probably not be homeowners	6.88	7.11	7.01	7.04	6.98	6.80	7.03	7.15	6.76	6.76
I regret taking on the size of mortgage I did	3.86	4.04	3.88	3.82	3.89	3.67	3.60	3.67	3.37	3.81
I/My family would be well-positioned to weather a potential downturn in home prices	6.54	6.72	6.67	6.93	6.95	6.92	7.02	7.09	7.02	6.81
Real estate in Canada is a good long-term investment	7.13	7.27	7.26	7.44	7.35	7.37	7.17	7.15	7.22	7.34
I am optimistic about the economy in the coming 12 months	N/A	6.02	6.13	6.36	6.25	6.23	5.99	6.26	6.01	6.05
I would classify mortgages as "good debt"	N/A	7.07	7.05	7.20	7.15	7.06	7.02	6.94	6.87	7.09
I/My family would be well positioned to handle a potential increase in mortgage interest rates.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6.36

Source: Mortgage Professionals Canada survey, Fall 2010 to Yearend 2019; Estimates by the author.

The next table looks at the 2019 survey results in terms of purchase periods:

- Agreement with the statement that "low interest rates have meant that a lot of Canadians became homeowners over the past few years who should probably not be homeowners" is strongest for those who bought many years ago. Recent buyers also agree with the statement, but less vigorously. This year, "non-owners" (people who rent or live with their parents) have the same opinions as owners.
- Levels of regret about mortgages vary, depending on when the homes were purchased. Regret is higher for the most recent buyers (an average of 3.96) than it is for those who purchased earlier (the overall average is 3.81). Prior editions of this report have commented that we might expect this regret to erode gradually over time. In the early years of repayment:
  - The borrowers' levels of indebtedness (relative to their incomes) are at the highest levels they will see in their lives.
  - Making regular mortgage payments (and at a high percentage of their incomes) is a new experience for many of them (the first-time buyers).
  - They can foresee very long periods of making mortgage payments, and many of them will have high levels of uncertainty (and even fear) about what will happen during that time period (to their incomes, to their interest rates, to their other costs of living, etc.).
- These conditions will improve gradually over time, which may result in these most-recent buyers having less regret in future. To illustrate this: in the 2014 report, we found that the most recent buyers had an average regret of 4.06 versus the overall average of 3.89 at the time. That cohort (2000-2014 buyers) now has an average regret of 3.44 (a drop of 0.62 points from five years earlier). Another way to look at these numbers is that in 2014, the newest buyers had an average regret that was 0.17 above the overall average. This year, the differential was similar, at 0.15.
- Opinions about whether mortgages are "good debt" show minor variations among the different vintages of home owners. The most recent buyers give an average rating (7.37) that is quite close to the average for all vintages of owners (7.32). Non-owners have considerably lower opinions about this (although the average score of 6.59 is still above the neutral score of 5.5).
- For the proposition about real estate as a long-term investment, and optimism about the economy), opinions among the most recent buyers are very similar to the averages for all owners. Opinions among non-owners are less positive than for owners.
- Opinions about resilience (ability to withstand a fall in housing prices and a rise in interest rates) are weaker for recent buyers than for all owners (by about one-third of a point). But even among recent buyers, confidence - at 6.94 about house prices and 6.50 about interest rates - is above the neutral level. Similar to the discussion about regrets, we shouldn't be surprised that recent buyers feel most vulnerable (and they no doubt are truly more vulnerable), and we should expect that their sense of vulnerability will improve over time. In the 2014 survey, there was also a differential about the impact of falling prices (it was more than a half point - average confidence was 6.81 for the most recent buyers versus

7.38 versus for all home owners). For that cohort (2010-2014 buyers), the average score has subsequently increased considerably (to 7.60 this year, from 6.81 in 2014).

Table 4-2
Summary of Consumer Responses to Topical Question,
As of Yearend 2019, by Period When Homes Were Purchased
(Average Scores on a Scale of 1 to 10)

	Pre-1990	*1990s*	*2000-2004*	*2005-2009*	*2010-2014*	*2015-2019*	*All Owners*	*Non-owners*	*All Responses*
Low interest rates have meant that a lot of Canadians became homeowners over the past few years who should probably not be homeowners	7.32	6.73	6.97	6.85	6.89	6.48	6.76	6.76	6.76
I regret taking on the size of mortgage I did	3.56	3.04	3.69	3.31	3.44	3.96	3.81	N/A	N/A
I/My family would be well-positioned to weather a potential downturn in home prices	7.71	7.47	7.30	7.12	7.60	6.94	7.22	5.90	6.81
Real estate in Canada is a good long-term investment	7.96	7.63	7.45	7.44	7.76	7.59	7.57	6.81	7.34
I am optimistic about the economy in the coming 12 months	6.41	6.30	6.03	6.03	6.36	6.30	6.25	5.62	6.05
I would classify mortgages as "good debt"	7.29	7.49	7.12	7.24	7.63	7.37	7.32	6.59	7.09
I/My family would be well positioned to handle a potential increase in mortgage interest rates.	7.65	7.19	6.89	6.75	7.13	6.50	6.86	5.25	6.36

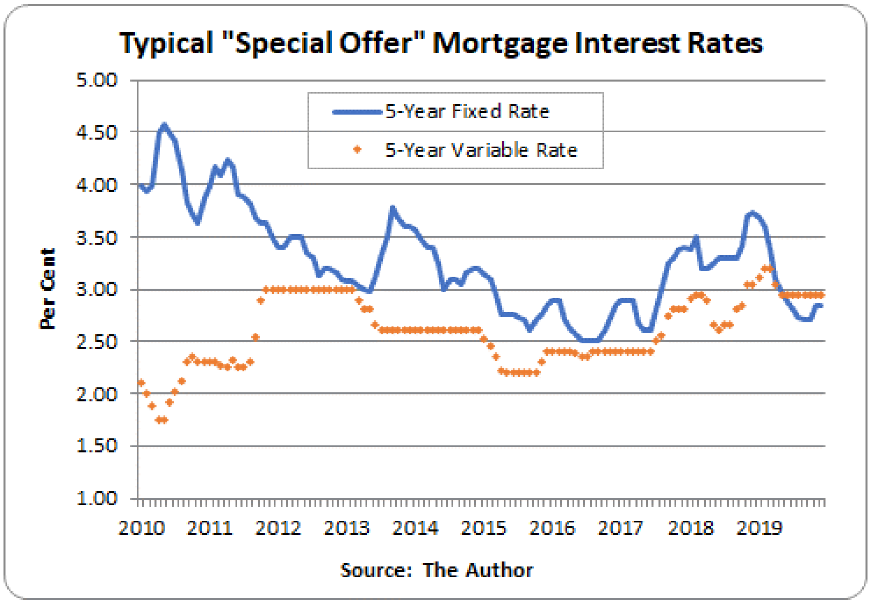
Source: Mortgage Professionals Canada survey, Yearend 2019; Estimates by the author.

Expectations

Since 2010, questions have been asked about expectations. Again, the responses are given on a 10-point scale. The history of the survey results is shown in a table below.

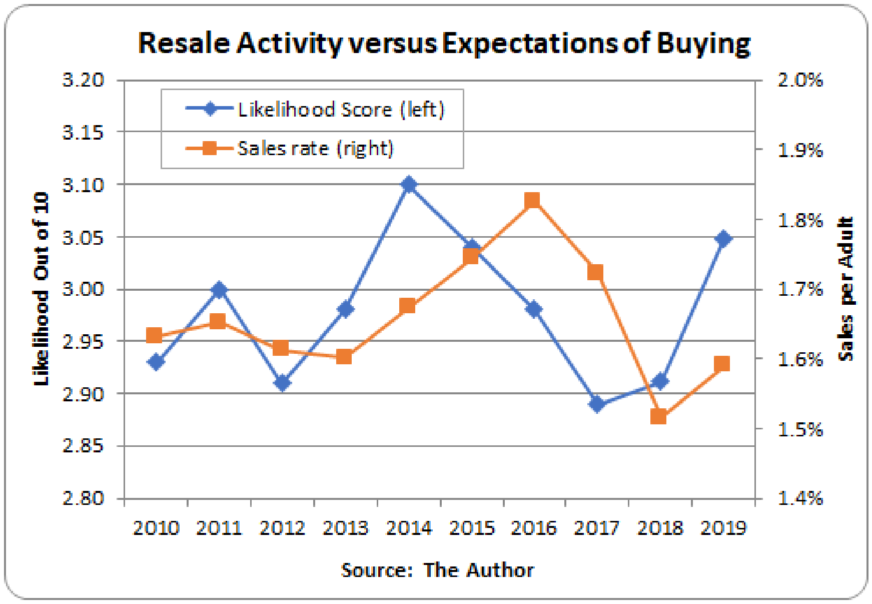
- For the question of whether this is a good time to buy a home or condominium in their own community, the responses had seemed to be stable until 2015, at above the neutral level of 5.5, indicating moderately positive attitudes. The average scores have been lower since then, at close to the neutral level. The average score this year was 5.53.
- Attitudes are currently most positive in Alberta (average of 6.12), followed by Atlantic Canada (5.98) and Manitoba 5.96). Averages were close to neutral in British Columbia (5.55) and Quebec (5.54, but were below neutral in Saskatchewan (5.34), and Ontario (5.23).

- Concerning house price growth for the coming year, the responses show the highest expectations in the 10-year history, at an average of 6.73 versus the long-run average of 6.39. Expectations are highest, and quite far above the 5.5 neutral score, in Ontario (7.20) and Quebec (7.13). Average responses are also elevated in Atlantic Canada (6.62), British Columbia (6.25), and Manitoba (6.16). The scores are slightly below neutral in Saskatchewan (5.47) and Alberta (5.33).
- Throughout the entire history of this line of questioning, Canadians have expected some rises for mortgage interest rates, as the average scores have been above the neutral level of 5.50. Expectations were reduced this year, to an average score of 6.30 out of 10, from 7.15 last year. The 6.30 score this year remains well above neutral, but is slightly below the long-term average of 6.48. In previous editions of this report, it has been commented that expectations about interest rates (and on other economic issues) may be "adaptive" (influenced by recent events, not by thorough economic analysis). With interest rates having fallen during the past year, it follows that expectations have also downshifted.



- For expectations about buying homes, the average scores are low and show only minor variations from year to year. But, this makes some sense, because only a small percentage of the population buys a home in any given year. The average score for 2019 (3.05) is fractionally above the long-term average of 2.98, and it is higher than in 2017 (2.89) and 2018 (2.91). The responses vary quite widely across the country. Consumers' expectations about buying are most optimistic in Alberta (3.33), British Columbia (3.32), and Ontario (3.20), but are weakest in Saskatchewan (2.55), Atlantic Canada (2.66), Manitoba (2.76), and Quebec (2.78).
- Now that we have this data for 10 years, we can start to look at whether it has any predictive value.

- It seems that expectations (about home buying) do a reasonable (but far from perfect) job in predicting sales for the next year. (Please accept my apology for how complicated this chart is - I find it quite interesting.[14]) In this chart, there isn't a substantive relationship during the first three years.



  But then, a rise in the likelihood in 2013 was followed by increased sales in 2014. A higher likelihood in 2014 was followed by more sales in 2015. However, in 2015, the likelihood fell, but sales rose again in 2016. Then, the data once again did what it's supposed to: a fall in the likelihood in 2016 was followed by lower sales in 2017, and there was a repeat the next year. The 2018 likelihood data predicted that sales would improve (slightly) in 2019, and that did happen!
- The likelihood increased again in 2019 (by a large amount). Therefore, there could be a significant rise in the sales rate during 2020.
- Resale activity was disappointingly low in both 2018 and 2019 (as is discussed in more detail later, the population-adjusted sales rate was 7% below the long-term average in 2019, after being 11% below average in 2018). An improvement in 2020 would certainly be welcome. Of course, there is no certainty that the expectations of improvement will be realized. Actual market trends during 2020 will be influenced by many factors, including what happens to interest rates, any changes in confidence about the economy, as well as the extent to which the mortgage stress tests continue to frustrate prospective buyers.
- One more thing: building on the type of analysis shown in the chart above, I also looked at the relationship between expectations for price growth and actual changes for prices in the following year: there is no relationship.
- These findings actually make some sense: people have a lot of influence over the purchases that they will make, and therefore, their individual expectations can influence the collective result - what happens to total sales. But, there isn't such a direct mechanism by which their expectations about price growth will influence actual growth.

[14] This chart portrays sales activity with an unusual statistic – sales per adult. There is more discussion of this data in the final section of this report. Statistically, there is a relationship between expectations versus sales the next year (the "R-square" is 64% - this is reasonably good). But, for prices, the "R-square" is quite weak, at just 23%. A note of caution: I have seen too many times that once a good statistical relationship is found, it frequently breaks down shortly afterwards. Is there something in economics like the "observer effect" that exists in physics?

- For me, this raises a general question about economics: under what conditions will the expectations and/or opinions of people affect outcomes in the economy? I need to spend some more time thinking about this.

Table 4-3
Summary of Consumer Responses on Expectations, by Date of Survey
(Average Scores on a Scale of 1 to 10)

	2010	*2011*	*2012*	*2013*	*2014*	*2015*	*2016*	*2017*	*2018*	*2019*
Now is a good or bad time to buy a home/condominium in my community	6.08	6.21	6.10	6.00	6.05	6.03	5.60	5.40	5.50	5.53
Expectations for housing prices in my community (the coming year)	6.18	6.64	6.34	6.22	6.31	6.35	6.43	6.36	6.38	6.73
Expectations for mortgage interest rates (the coming year)	6.54	6.56	6.51	6.21	6.21	6.16	6.24	6.93	7.15	6.30
How likely are you to purchase a new property in the next year (this could be a primary residence, a second residence or investment property)?	2.93	3.00	2.91	2.98	3.10	3.04	2.98	2.89	2.91	3.05

Source: Mortgage Professionals Canada survey, Fall 2010 to Yearend 2019; Estimates by the author.

Housing as an Investment

These surveys have occasionally investigated to what extent people see their housing as a place to live versus as an investment. The respondents give two numbers (the percentage "place to live" and the percentage "investment", and the two numbers must add to 100). At different times, this has been asked of varying subsets of the survey samples (sometimes all owners, sometimes mortgage holders only). This time, we asked the entire sample.

In the 2019 survey, we found that Canadians see their housing as 75% a place to live and 25% as an investment. I don't know if there is a correct percentage, but this strikes me as a healthy attitude.[15]

Analysis looked at variations across different groupings of the population. The 75/25 split is quite stable across different sub-groups of the population: in high-cost and low-cost provinces; across the age groups of the population; for owners versus renters; for periods when homes were purchased; for values of homes; and for different levels of household incomes. This data hints, but certainly does not prove, that buying decisions (being made by people who will occupy the dwellings themselves) are not being excessively driven by an "investment motive".

[15] The first time we asked this question, home owners replied that they saw their housing as 70% a place to live. The percentage has crept upwards since then.

Happiness with Decision to Buy a Home

Since the spring of 2014, homeowners have been asked whether they are happy with their decision to buy their home. This question once again finds a very high degree of satisfaction with homeownership. Three optional responses were available:

- By far, homeowners are happy with the decision to buy their home (91%).
- A very small minority (3%) indicated that "I regret my decision and – I wish I did not choose to own a home".
- In addition, 6% indicated "I regret my decision – I wish I had purchased a different home/property".
- For the most recent buyers, 90% are "happy with…", virtually equal to the average of 91% for all home owners.
- Looking across the country, responses are most positive in Atlantic Canada (95%) and Manitoba (93%). The least favourable positive responses are slightly below the national figure of 91% in British Columbia (88% are "happy with…") and Alberta (89%). In the remaining provinces (Quebec, Ontario, and Saskatchewan, the positive responses are within 1 percentage point of the national average.

Table 4-4
Happiness with Decision to Buy a Home, by Period of Purchase

	Pre-1990	*1990s*	*2000-2004*	*2005-2009*	*2010-2014*	*2015-2019*	*All Periods*
I am happy with my decision	97%	95%	95%	89%	93%	90%	91%
I regret my decision – I wish I did not choose to own a home	1%	0%	2%	1%	2%	4%	3%
I regret my decision – I wish I had purchased a different home/property	2%	5%	4%	9%	5%	6%	6%
Total	100%	100%	100%	100%	100%	100%	100%

Source: Mortgage Professionals Canada survey, Yearend 2019; analysis by the author.
Note: totals may not add to 100% due to rounding.

Considerations for Home Buying

Starting with a survey last summer, we began to explore how strongly various factors were considered when home owners purchased their first homes.[16]

[16] That initial research can be found in this report: https://mortgageproscan.ca/docs/default-source/consumer-reports/home-buying-in-2019_mid-year-report.pdf, in Section 3, starting at page 17. In the summer 2019 research, this question was given to the entire sample, while in this edition the question was asked only for non-owners.

In this section of the survey, we listed 18 different factors that home buyers might consider. The question was posed this way: "The following may be considerations for the typical person when deciding whether or not to purchase a home. Please indicate how strongly you will consider each one, given your time frame for purchasing. Please use the scale below, where 10 is 'Strongly considering' AND 1 is 'Not considering at all'."

Then, we asked to what extent each of the factors is a barrier to them personally (using a similar 10-point scale).

In this version of the survey, this line of questioning was investigated only for people who don't currently own their homes.

The results are summarized in Table 4-5, which is two pages below.

A few notes on the methodology:

- We thought that asking each consumer to consider all 18 factors was too much, so for each person, nine of the factors were randomly selected.
- Those nine factors were presented at the same time (on one screen) so that the respondents could, if they wanted to, compare the factors.
- In the survey the considerations were presented in random order.

In analyzing the results, we need to be mindful that the people surveyed are all non-home-owners. While they indicated how much consideration they might give to each of the topics, some of them may have given very little thought to the issues and therefore these responses might not accurately tell us how they would make an actual purchase decision.

Our respondents indicate that they expect to give a great deal of consideration to almost all of these 18 factors.

- The expectations are that the most consideration will be given to the total monthly cost of home ownership (the #1 ranked factor, as is shown in the second column of the table), followed by the length of time it will take to pay off the mortgage. Third place is given to expectations about income growth, and how to save a down payment is in fourth place.
- The factors that are expected to receive the least consideration are the prestige of home ownership (the lowest ranked factor), future child care expenses, the possibility of having to move a lot in future, and future transportation costs.
- The relatively low levels of consideration for child care costs and transportation costs are somewhat surprising.
- But, only about one-eighthfth of home owners have any child care costs.

- Even among young home owners (aged 25 to 39), who have mortgages, just one-third have any child care costs, and less than one-quarter have significant costs[17] (because they are childless or have low costs, such as care by relatives, neighbours, government programs, or through work arrangements).
- Low levels of consideration of child care costs might occur when there are already substantial costs, but theyexpect that the costs will not rise any further, and will eventually be reduced. Or theymight expect to be challenged by these costs, but are prepared to endure the challenges.
- Similarly, some home owners have significant transportation costs, but not all do, and among those with high costs they may be used to those costs.
- With the data available, it isn't possible to conclude if we should be concerned about the relatively low consideration of child care and transportation costs.

Looking at the 18 factors as barriers, the greatest issue is expectations about income growth, followed by the amount of time it will take to pay off the mortgage, the amounts of principal to be repaid each year, and total monthly costs of housing.

Our takeaway from these responses is that potential home buyers expect to give careful consideration to the financial implications of being a home owner.

Related to the mortgage stress tests, future changes to interest rates are in the lower half of the list of factors that will be considered (in 11th place). But, at an average score of 7.01, this issue is rated well above the neutral level of 5.5, indicating that potential buyers expect to give substantial consideration to the risk of higher future costs. Moreover, as is shown in the second table below, among people who expect to buy during the next five years, the average degree of consideration for future interest rates is higher, at 7.38. Another related finding is that in the list of barriers to home ownership, future changes in interest rates is in 5th place overall and in 3rd place among people who expect to buy during the coming five years.

Another finding related to the stress tests is that people expect to give substantial consideration to their future incomes (as is shown in the second table below, for people who expect to buy during the coming 5 years, the average rating is 8.08 out of 10, and this is the 4th highest considered factor). But, the stress tests do not allow this factor to be taken into account.

The most important criticism of the mortgage stress tests is that while they assume that interest rates will be much higher when the mortgage is renewed in future, they do not consider that incomes will also change. This survey data indicates that consumers expect to give substantial consideration to both of these factors, It is unfortunate that the government's mortgage

[17] Calculated using the Public Use Micro File from Statistics Canada's 2009 Survey of Household Expenditures. In this data, for home owners with mortgages, aged 25 to 39, 27% had an annual child care expenditure of $1,000 or more (equivalent to about $115 per month in today's dollars) and 22% had an expenditure of $2,000 or more ($230 per month in today's dollars). 10% had an expenditure of $5,000 or more ($570 per month in today's dollars).

regulations fail to consider both of these factors that will determine the outcomes of future mortgage renewals.

Table 4-5 *Strength of Consideration for Factors Around First-Time Home Buying*				
	Will Consider		***Barrier***	
Factor	*Average Score*	*Rank (1=Highest)*	*Average Score*	*Rank (1=Highest)*
Monthly house-related costs (i.e. mortgage payment, hydro, heat, insurance, etc.)	7.75	1	6.85	4
Monthly cost of ownership compared to renting	7.03	10	6.53	9
The amount of interest you would pay per year	7.36	5	6.60	8
The amount of the mortgage you would pay off per year	7.22	7	6.95	3
The amount your transportation costs will change in the coming years	5.65	15	4.91	14
The amount your child-related expenses will change in the coming years	5.18	17	4.18	17
The amount your income might increase or decrease in the future	7.42	3	7.00	1
The amount the value of the home might increase or decrease in the future	7.19	8	6.04	10
Your confidence in being employed over the next several years	7.36	6	5.85	12
The amount that interest rates will increase or decrease in the future	7.01	11	6.84	5
The "prestige" of being a home owner	4.66	18	3.14	18
The security of having a "stable" home base	6.92	13	4.43	16
Owning a house as a long-term investment	6.75	14	4.59	15
The amount of funds available for discretionary purchases (i.e. dining out, shopping, vacations, etc.)	6.95	12	5.99	11
The amount of time it will take to pay off the entire mortgage	7.64	2	6.98	2
Getting a mortgage	7.12	9	6.79	6
Saving for a down payment	7.39	4	6.73	7
Possibility of having to move a lot in the future	5.36	16	5.34	13
Source: Mortgage Professionals Canada survey, Yearend 2019; Analysis by the author.				

In the data, it was noticed that responses vary according to the people's expected time frames to buy a home (time frames were investigated through a separate question). Therefore, the following discussion and table looks at people who expect to buy during the next five years.

- It is expected that the greatest consideration will be given to monthly housing costs, followed by saving for a down payment, future change in the property value, and income growth. The least consideration will be given to prestige, the possibility of having to move, child care, and transportation costs (again, these last two factors are difficult to interpret, due to variations in situations).

- The greatest barriers (although since these people do expect to buy within five years, it appears that they expect to overcome the barriers) are the total monthly housing costs, uncertainty about future income, future changes in interest rates, and the time require to pay off the mortgage.

Table 4-6
Strength of Consideration for People Expecting to Buy During the Coming Five Years

Factor	***Will Consider***		***Barrier***	
	Average Score	*Rank (1=Highest)*	*Average Score*	*Rank (1=Highest)*
Monthly house-related costs (i.e. mortgage payment, hydro, heat, insurance, etc.)	8.47	1	6.86	1
Monthly cost of ownership compared to renting	7.57	11	6.62	6
The amount of interest you would pay per year	8.03	6	6.57	8
The amount of the mortgage you would pay off per year	7.73	8	6.62	7
The amount your transportation costs will change in the coming years	6.35	15	4.98	14
The amount your child-related expenses will change in the coming years	6.07	16	4.51	17
The amount your income might increase or decrease in the future	8.08	4	6.84	2
The amount the value of the home might increase or decrease in the future	8.10	3	5.99	10
Your confidence in being employed over the next several years	7.72	9	5.55	12
The amount that interest rates will increase or decrease in the future	7.38	14	6.82	3
The “prestige” of being a home owner	5.40	18	3.24	18
The security of having a “stable” home base	7.55	12	4.58	16
Owning a house as a long-term investment	7.92	7	4.67	15
The amount of funds available for discretionary purchases (i.e. dining out, shopping, vacations, etc.)	7.46	13	5.90	11
The amount of time it will take to pay off the entire mortgage	7.66	10	6.82	4
Getting a mortgage	8.07	5	6.55	9
Saving for a down payment	8.45	2	6.65	5
Possibility of having to move a lot in the future	5.71	17	5.32	13

Source: Mortgage Professionals Canada survey, Yearend 2019; Analysis by the author.

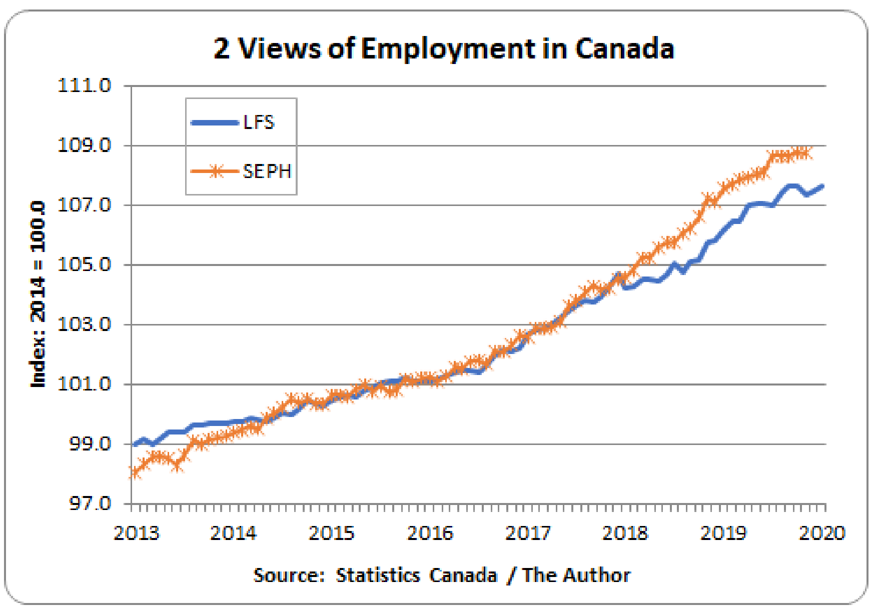
5.0 Outlook for the Mortgage Market

Very Favourable Economic Conditions

The two most important drivers of the housing market are job creation and interest rates.

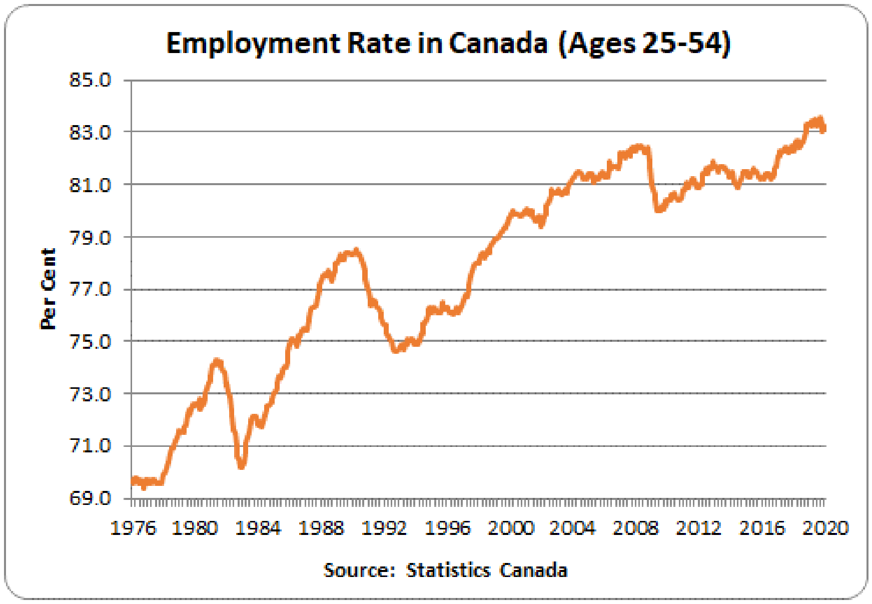
- Having a secure employment situation enables people to make major economic and financial decisions, such as to leave the parental home and form a new household, or to buy a home. Therefore, growth in employment is very important to housing market trends. Changes in employment affect the rental sector fairly quickly, but impacts on home sales are slower to materialize. Once a person gets a job, several things need to happen before they buy a home: they need to make decisions, they need to feel comfortable about their job security, and they need to get financially ready (including acquiring a down payment). Therefore, the impacts of job growth on home sales play out over several years.
- Interest rates influence whether a person can afford to buy a home in their community. A change in interest rates causes a sudden change in how many people can afford to buy, and therefore, home sales respond quite quickly when interest rates change. Sometimes, there are surprising reactions: when interest rates rise, there can be a short-lived bump in sales, as people accelerate their decisions to take advantage of pre-approved rates.

Statistics Canada has two major surveys of employment. The best-known is the Labour Force Survey ("LFS") which is usually released on the first Friday of the following month. The other is the Survey of Employment, Payrolls and Hours (""SEPH"), which comes out almost two months later than the LFS data, and therefore gets very little attention. At the time of writing (early February), we have data from the LFS for January but the SEPH data is for November.



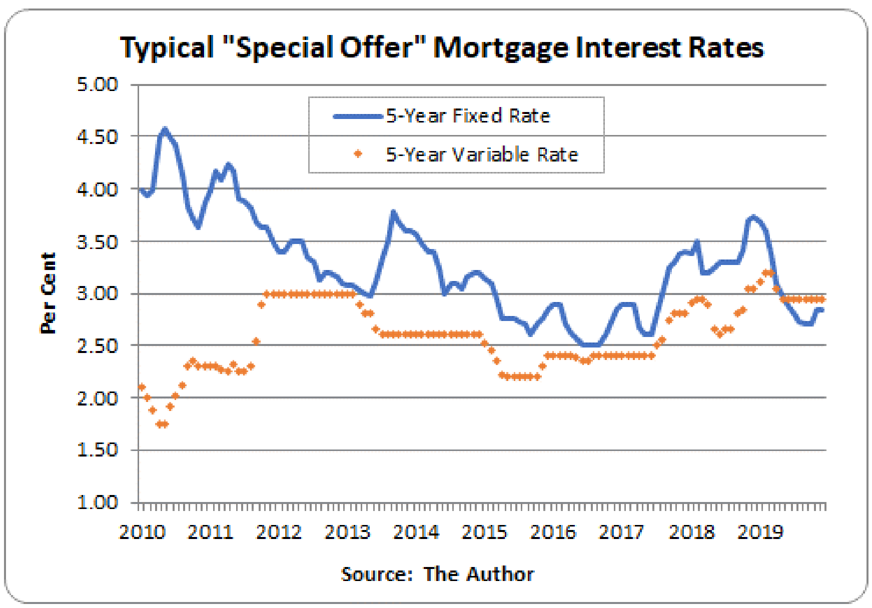
While there are major differences between the estimates, the two surveys are currently telling broadly similar stories. They both indicate that a period of strong job growth began about mid-2016, but there has been slower growth since late 2018 or early 2019. (In the chart, the data has been converted into indexes, to make it easier to compare).[18]

Another way to look at the employment situation is through the employment-to-population ratio (or the "employment rate"), and especially for the so-called "prime working age group" of 25 to 54. This chart shows the entire history of the available data. Since mid-2017, the prime age employment rate has been at the highest ever level.



Even though the data has softened during the past year (for the rate of job growth and the employment rate), the events of the past four years mean that a lot of Canadians are now getting ready to buy homes.

Looking at mortgage interest rates, there was a substantial drop for fixed rate mortgages (by 1 point, for 5-year terms) during January to July 2019. Variable rates also fell slightly during the year. This means that the accessibility of home ownership improved during the year.



The combination of strongly favourable conditions for both employment and interest rates means that home buying should now be very strong in historic terms. As is discussed in more detail in the next major section (on housing markets across the country), activity has strengthened in recent

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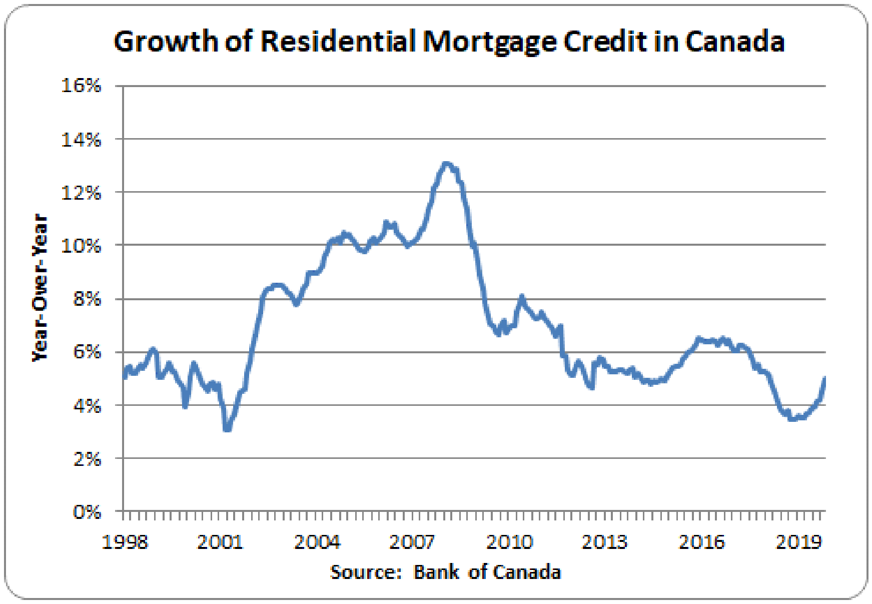
[18] The 2018 edition of this report contained a longer discussion of the differences between the two surveys, starting at page 55: https://mortgageproscan.ca/docs/default-source/membership/annual-state-of-res-mtge-mkt-2018.pdf

months, but, to a level that is only average in historic terms, at a time when activity should be far above average.

Shifting Trends for Mortgage Growth



Data from the Bank of Canada (published by Statistics Canada) indicates that mortgage credit growth had slowed sharply in Canada, but accelerated during the second half of 2019. As of November, the year-over-year growth rate is 5.0%. This remains below the long-term average of 7.0% per year for the entire period shown in this chart. Due to the recent acceleration, the year-over-year growth rate might increase further during the coming months.

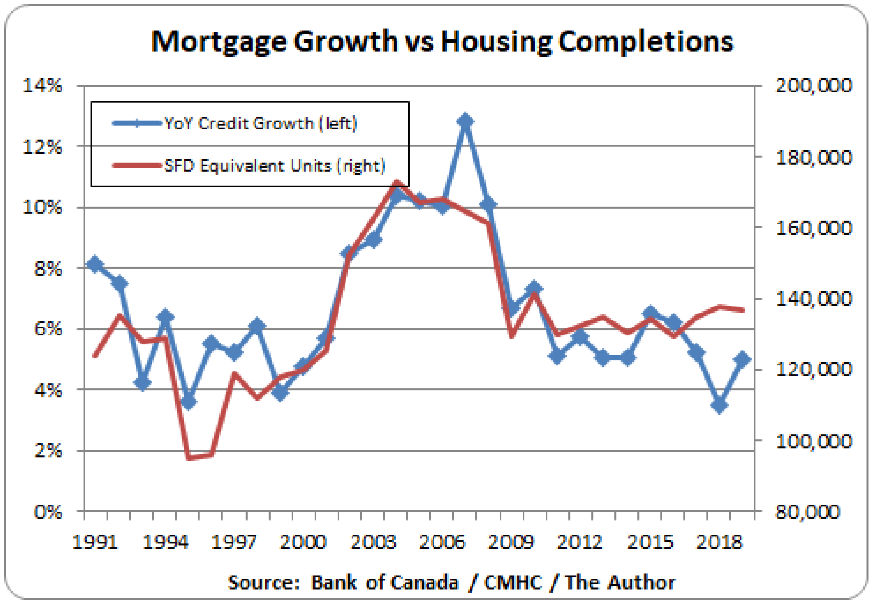
Factors Driving Mortgage Credit Growth

Several major factors influence the growth of mortgage credit.

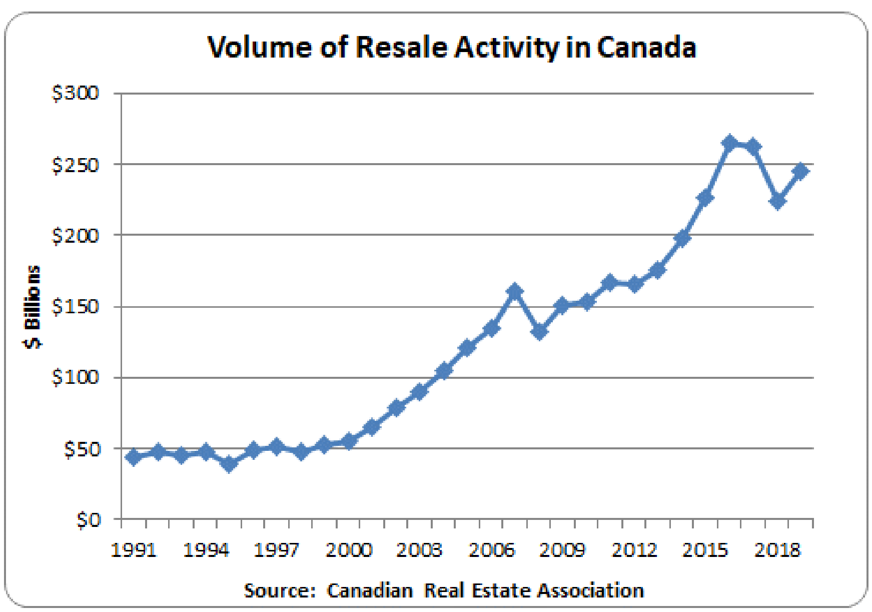
- One factor, which is a long-term, persistent trend, is that Canadians move away from slow growth communities (which have relatively low house prices) into communities with stronger job markets, which also have higher house prices and therefore larger associated mortgage amounts. Over the long-term, this factor alone may account for about a quarter of mortgage credit growth in Canada.
- Growth of mortgage credit is highly related to completions of new homes. As new homes and apartments are completed and the buyers take possession, most of them obtain mortgage financing.
- During the past three decades, there has been a very close relationship between housing completions and growth of mortgage credit. But, that relationship has weakened during the past decade.
  - The highest-priced properties are single-family-detached homes, and therefore this dwelling type has the largest mortgage amounts. Over time, the "mix" of housing has changed: fewer single-detached homes are being constructed (just 27% of the total during 2019 versus a 30-year average of 49%). More apartments are being built (56%

during 2019 versus an average of 34%). The shares for semi-detached and town homes have been roughly flat (combined totals of 17%).

- This change in mix is bringing down the mortgage requirements that result from new construction. In this chart, adjustments have been made for this changing mix: housing completions have been recalculated as "single-family-detached-equivalent units" (SFD). In this analysis the data shows a close relationship. However, during the past decade, credit growth has tended to be somewhat lower than is expected on the basis of housing completions alone.



- Statistical analysis (which looks at three factors simultaneously) indicates that completions of SFD equivalent units is, by far, the most important driver of credit growth. A 10,000-unit change in the annual volume of completions (on the SFD equivalent basis) affects the mortgage growth rate by 1.0 to 1.2 percentage point. For 2019, SFD-equivalent completions were at the long-term average level, meaning that this factor was still the most important driver of mortgage credit growth.
- Trends in the resale housing market (including the rate of price growth and the total dollar value of sales) are also statistically related to mortgage credit growth, but the impacts are considerably less strong. A large change (10%) in the dollar volume of activity results in only a small change



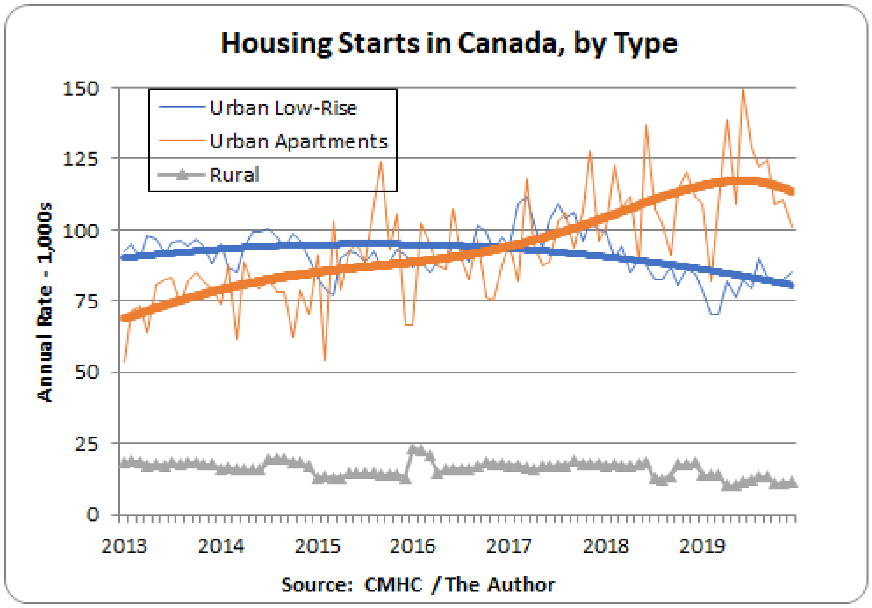
(0.4 percentage points) in the growth rate for mortgage credit. The reason is that when a resale property is purchased and a mortgage is obtained there is often an existing mortgage that will be discharged (or transferred). As such, on a "net" basis, resale activity results in less demand for mortgages compared to construction of new dwellings. The dollar volume of resale activity fell by a large amount (14%) during 2018, which contributed to a reduced growth rate for mortgage credit. During 2019, a 9% rise in resale volume contributed to increased growth.

- The statistical analysis shows that levels of interest rates also affect the rate of credit growth. On a statistical basis, each 1-point change in mortgage interest rates affects the rate of credit growth by about 0.3 points per year. Very low mortgage interest rates are allowing Canadians to more quickly repay their mortgage principals. As was shown in an earlier section, Canadians are making significant efforts to repay their mortgages more rapidly than is required. However, the effects of changing interest rates occur slowly (the effects begin not when the rates change, but when people renew their mortgages at higher or lower interest rates). At present, most mortgage renewals are occurring at interest rates that are at or below the rate that applied when the mortgage was started. Therefore, for many borrowers the required mortgage payments are also at or below the original levels. Meanwhile, the borrowers' incomes have increased. This combination is allowing for rapid repayment. This is moderating the rate of credit growth.

These three factors, viewed in combination, have historically done quite a good job of explaining growth rates for mortgage credit, and have provided a basis for forecasting future growth.

However, the forecasting model failed badly in 2018. Based on these three factors (housing completions, the dollar volume of resale activity, and mortgage interest rates), the forecasting model indicates that mortgage credit should have expanded by 5.1% during the year, but according to the Bank of Canada data, the actual growth rate was 3.5%: the actual growth rate was 1.6 percentage points below the predicted amount. For 2019, growth was once again less than projected (5.0%, or 0.9 points below the projected 5.9%). Based on further examination of the data it appears that the cause for slower-than-projected growth is that mortgage borrowers are responding more aggressively to low interest rates and making great additional efforts to repay.

Looking Forward



Housing completions are, of course, the result of housing starts that occurred previously. During the past two years, starts of low-rise dwellings (single-detached, semi-detached, and town homes in urban areas (and rural areas) have slowed significantly. For 2019, starts of single-family detached homes were 40% below the average of the past 20 years.

On the other hand, starts of apartments increased during the year, continuing a multi-year expansion, to 56% above the 20-year average. The trend line hints that apartment starts are at or close to a peak.

Based on the housing starts data, completions of single-family detached homes can be expected to fall during 2020, but completions of apartments can be expected to rise. Converting these expectations to single-detached equivalent units, there might be a drop of 2-3% during 2020. This would tend to slightly reduce the growth rate for mortgage indebtedness.

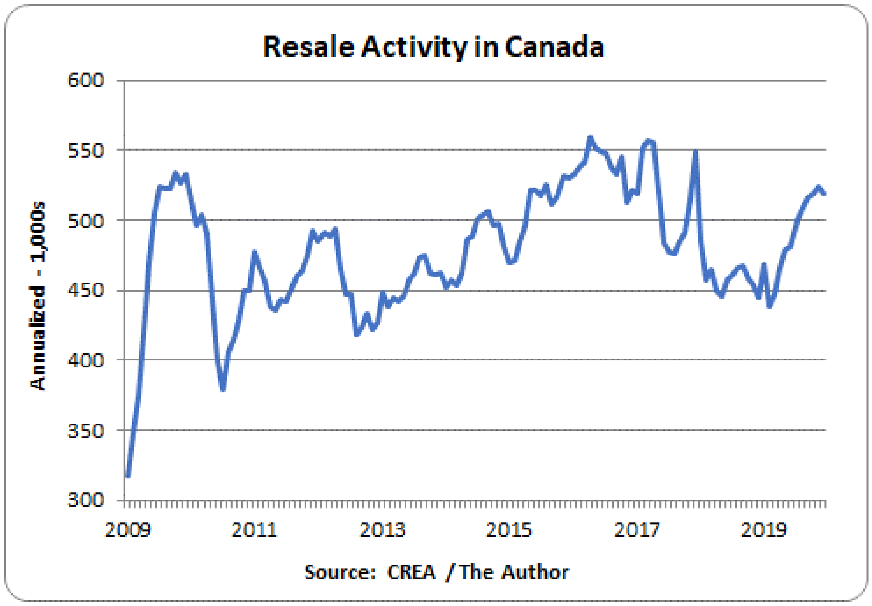
On the other hand, based on forecasts from the Canadian Real Estate Association, the dollar volume of resale activity might rise by about 15%, which will tend to raise the growth rate.

The third major factor (changes in mortgage interest rates) is currently neutral, as most mortgage renewals will be at interest rates similar to pre-renewal.

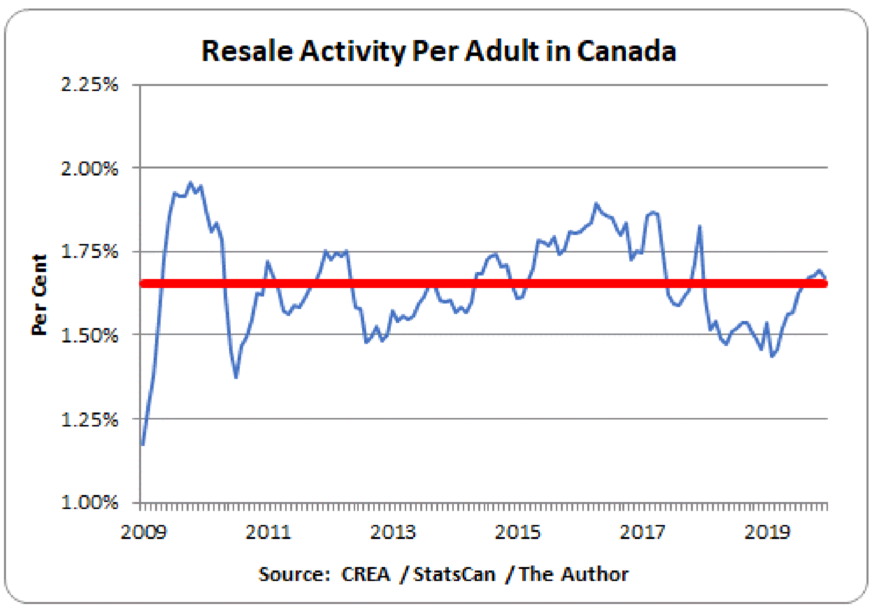
Combining these three major factors, the statistical analysis suggests that mortgage credit could expand by 5.5% during 2020. However, as in 2018 and 2019, the actual growth rate might be lower than is expected by a forecasting model, due to continued aggressive repayment by borrowers. The actual growth rate might be closer to 5%.

6.0 Housing Market Trends[19]

Trends in the Resale Market



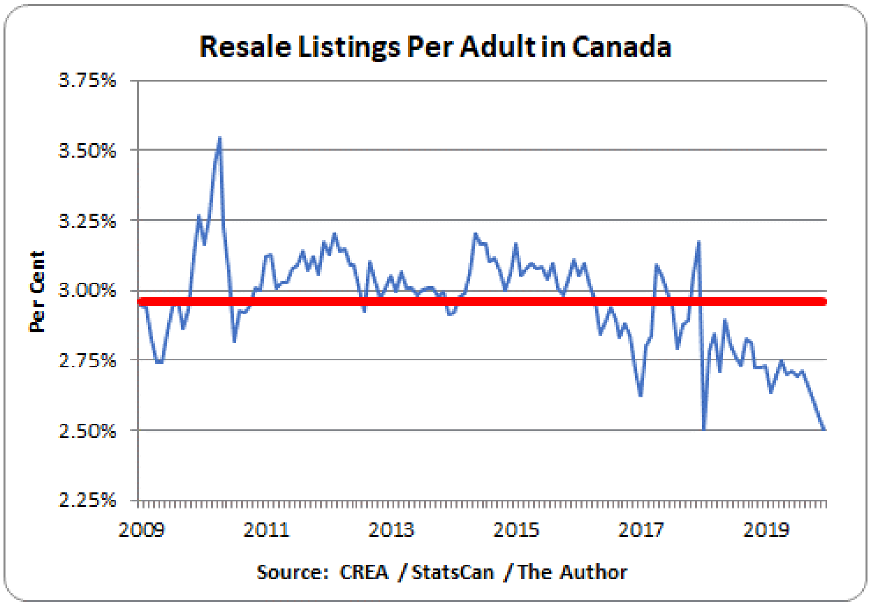
Following weakness during 2018, resale housing activity improved during 2019. The Canadian Real Estate Association ("CREA") reports that total sales for the year were 6.5% higher than in 2018. Most of the recovery occurred during the spring and summer (in response to reductions in mortgage interest rates). Stabilization of interest rates caused sales to be roughly flat during the last four months of the year.



Resale activity should trend upwards over time: as the population grows there are more potential buyers; also, construction of new homes means that there are more properties that could possibly be sold. Therefore, it is useful to look at resale market activity relative to the size of the population. The chart to the right makes that comparison (using the number of adults in Canada, as estimated by Statistics Canada's Labour Force Survey). This analysis shows that during 2018 into early 2019, the sales rate was below average.

[19] This review is based on data available as of February 7. Since then, the Canadian Real Estate Association has released data showing a 2.9% reduction in the sales rate for January versus December, and a 4.6% year-over year rise in its price index. Canada Mortgage and Housing Corporation has released data on housing starts for January. The new data would not materially alter the conclusions.

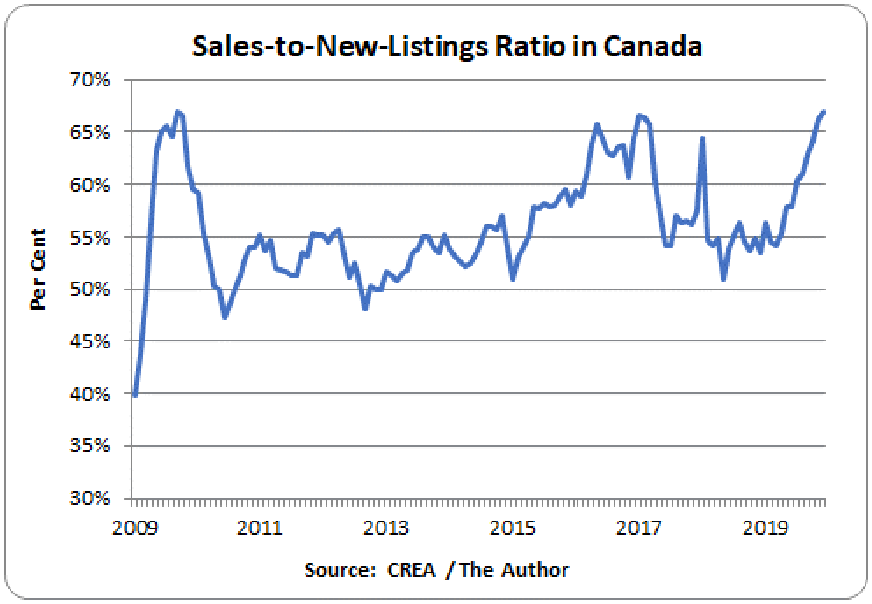
During the closing months of 2019, the rate was close to the average. For the entire year, the average (1.59%) was slightly below the long-term average (which is shown by the flat red line[20]). The later discussion of housing market conditions across the provinces shows a wide range of performances on this metric of per-adult sales rates.



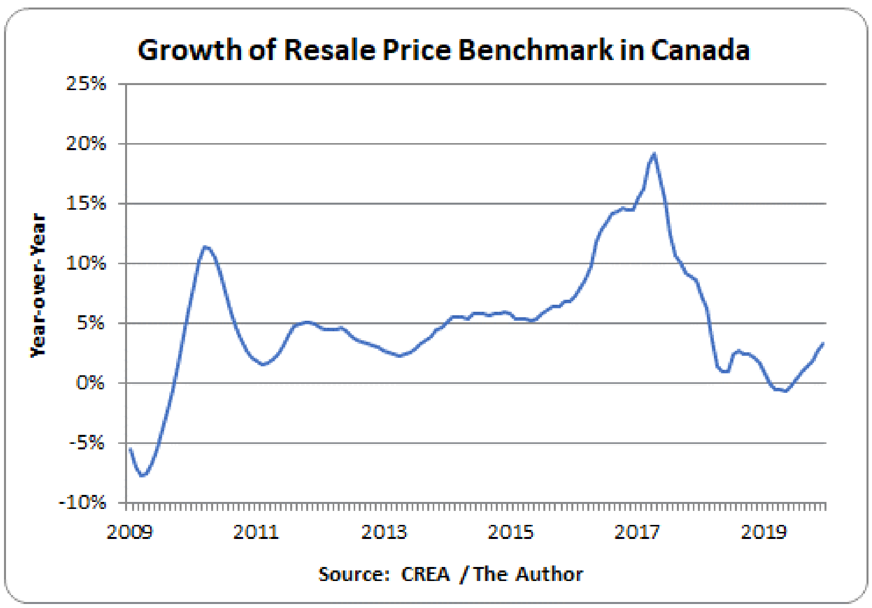
Flows of new listings into the resale housing market have also been reduced. Expressed as listings per adult, the rate of inflows of new listings has been quite low since the start of 2018, with a further substantial drop late in 2019. For all of 2019, the average per adult rate (2.66%) was 10% below the long-term average (2.97%). Analysts offer varying explanations. The most likely is that potential move-up buyers are being deterred by a combination of factors, including the high costs of selling one home and then buying another (the combined costs can be as much as 10% of the value of the home) as well as the mortgage stress tests that reduce the amount of finance that could be obtained for a new purchase.

[20] In this chart, the long-term average has been calculated for the period shown. The average might also be calculated for longer periods, but that would not materially change the calculated long-term average sales rate or the conclusion. For example, the average for 2000 to the present is 1.69% versus the rate of 1.66% shown in this chart.

At this time, the sales-to-new-listings-ratio ("SNLR") has climbed sharply, and as of December it reached the highest level of the past decade. The SNLR is now far above the threshold for a "balanced market" (which I estimate is about 52% - this is the SNLR at which we should expect that prices will rise by 2% per year). There is more discussion below of balanced market thresholds in the resale market and (later for the rental housing market).

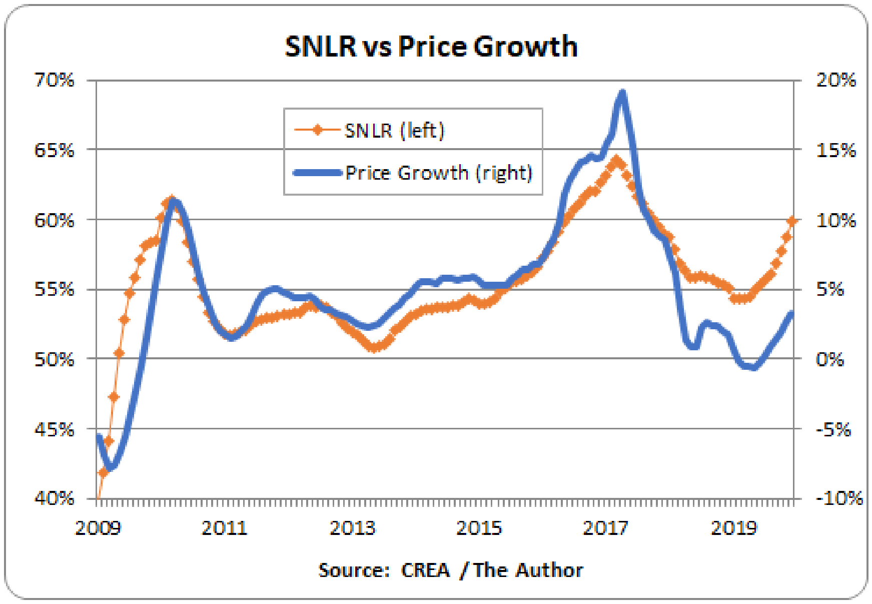


Housing market conditions have varied sharply during the past decade, causing wild swings in the rates of house price growth. Using CREA's "Composite Benchmark", prices have increased by 70% during the past decade, for an average of 5.4% per year. Pricing had shown little change during 2018 until late 2019, but with the recent severe tightness of the market, price growth is now escalating (to 3.3% year-over-year as of December).



Comments are sometimes made that a SNLR between 40% to 60% represents a balanced market. This analyst considers such statements too broad. Firstly, they often don't define what is meant by "balance". A balanced market might be defined as a situation in which prices rise at about the same rate as overall inflation or incomes – in other words, by about 2% per year.

Secondly, in the actual housing marketplace, a situation with a 40% SNLR is very different from a 60% SNLR, as is illustrated in the chart to the right[21]. During the past decade, the actual (monthly) ratios have been within the 40-60% range most of the time. Yet, as can be seen in this chart, it has been rare for actual price growth to be close to the 2% level. When the SNLR is close to the bottom of that 40-60% range, prices tend to fall, and when the SNLR is at the top of the range, price growth tends to be well above 2%. In short, that 40-60% range is much too broad to truly define balanced market conditions.



Statistical analysis can be used to estimate the level of the SNLR that is expected to result in price growth of 2% per year. Using the growth rates for CREA's Composite Benchmark price, the analysis currently indicates that prices should rise by 2% per year when the SNLR is 51.9%. The analysis also indicates that at a 40% SNLR, prices should fall by 16% per year. At a 60% SNLR, the expected change is 8.4% growth. Neither of those situations should be considered "balanced".

If we want to identify a range for a balanced market, we might calculate the SNLR's that would result in price increases of 0% or 4%. The statistical analysis indicates that:

- Prices are expected to be unchanged (that is, rise by 0%) at a SNLR of 50.2%.
- Prices are expected to rise by 4% at a SNLR of 53.9%.
- On this basis, we might say that the Canadian resale market is in balance when the SNLR is in a range from 50% to 54%.

Two further comments:

- This is the estimated range for Canada. For other geographies, the estimated thresholds (and the ranges) can vary. The table below summarizes estimates across the provinces. The estimated balanced market thresholds range from 35% in PEI to 59% in Manitoba.
- Secondly, while there is a strong statistical relationship between SNLR and price growth, it isn't perfect. In the chart on the prior page, it can be seen that actual price growth was

[21] In this chart, the SNLR is shown as 12-month moving averages, to reflect that price growth during each year-over-year period should be the result of the SNLRs that existed during that same period.

considerably stronger than we should have expected during 2016 into early 2017 (prices "overshot"). More recently, price growth has been weaker than we might have expected.

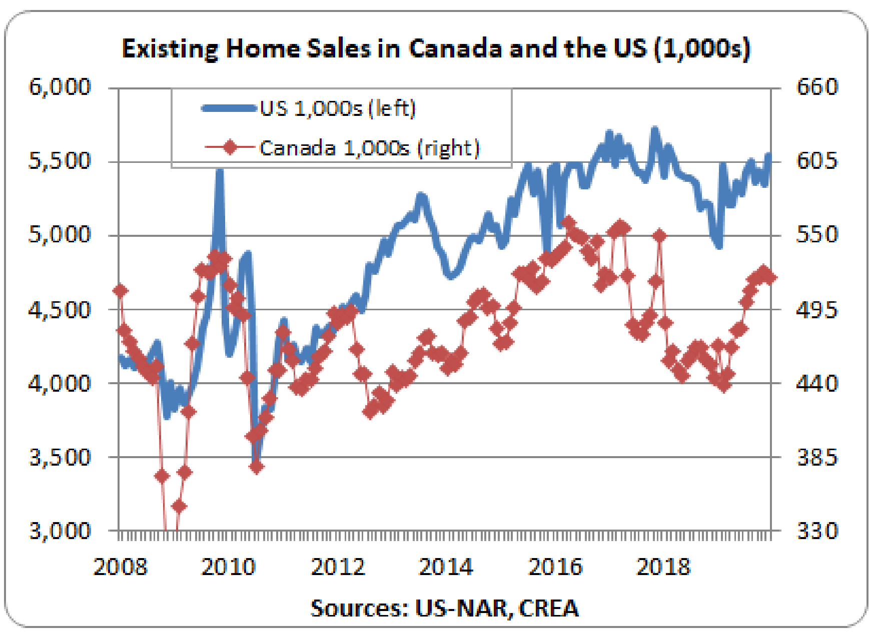
Table 6-1
Estimates of "Balanced Market" Sales-to-New-Listings Ratios

	Balanced Market Threshold	*SNLR Required to Result in Price Growth of...*		*Price Growth Expected at SNLR of...*	
		0%	*4%*	*40%*	*60%*
Canada	52%	50%	54%	-16.2%	8.4%
BC	46%	44%	49%	-3.4%	9.5%
Alberta	55%	51%	58%	-3.5%	5.2%
Saskatchewan	50%	43%	54%	-0.2%	8.3%
Manitoba (1)	59%	NA	66%	NA	2.3%
Ontario	54%	51%	57%	-8.9%	6.6%
Quebec	38%	27%	48%	2.4%	6.6%
New Brunswick	44%	41%	49%	-1.0%	4.8%
Nova Scotia	48%	43%	53%	-1.3%	6.1%
PEI	35%	27%	43%	3.3%	7.1%
Newfoundland and Labrador	46%	42%	49%	-1.3%	11.2%

Source: analysis by the author, using data from the Canadian Real Estate Association.
Note: (1) "NA" indicates it was impossible to generate an estimate.

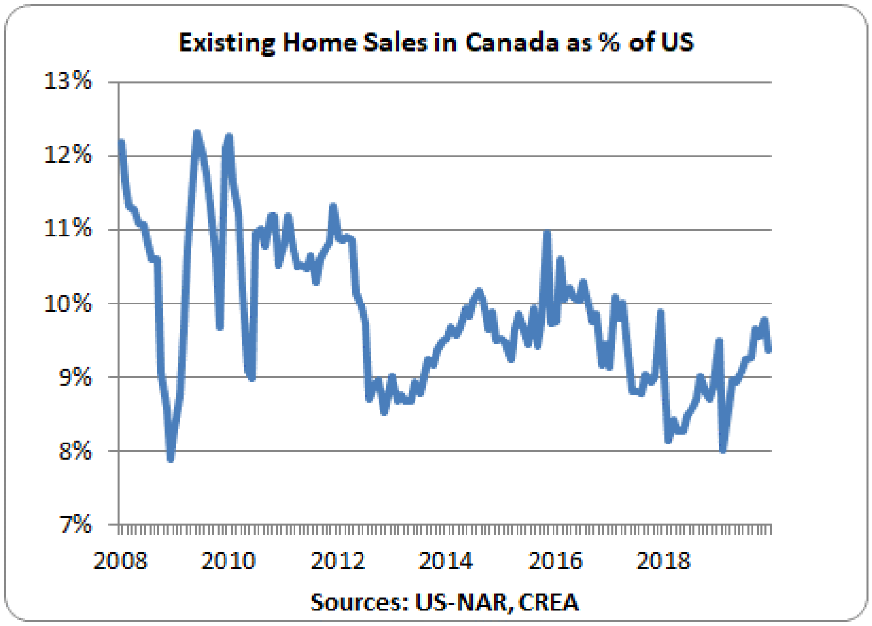
Canada was not the only country that experienced a housing market slowdown in 2018 or a turnaround in 2019. Canadian resale activity is compared to the US, in two charts.

The population of Canada is equal to roughly 11% of the US figures. Therefore, in this chart, resale activity in Canada is scaled at 11% of the US figures. This data shows that during 2008 until mid-2012, sales in Canada and the US followed very similar (wild) changes. After mid-2012, the relationship between the Canada and US data broke down. This was due to a significant change in Canadian mortgage insurance policies (the



elimination of amortization periods longer than 25 years). The persistence of that gap shows that the 2012 policy change had severe and sustained consequences for home buying. The gap widened even more during late 2016 (due to the stress test for insured mortgages), and again in 2018 (due to the stress test for non-insured mortgages). During late 2019, the recovery in Canada was stronger than in the US, but sales in Canada on a proportional basis remained far below US figures.

The second chart looks at resale activity in Canada as a percentage of US figures. During 2008 to mid-2012, the shares contained some large month-to-month variations, but overall the share was roughly stable, with an average of 10.7% (very close to the 11% population share). Since then, the Canadian share has been lower. For all of 2018, the share was just 8.6%. The share rose in 2019, but just to 9.2%.



Economic trends in Canada and the US are not markedly different. In other words, the drop of resale activity in Canada is larger than we might expect. A large share of the blame for our housing slowdown must be attributed to the mortgage stress tests, added to the prolonged impact from the 2012 elimination of mortgage insurance for mortgage amortization periods exceeding 25 years.

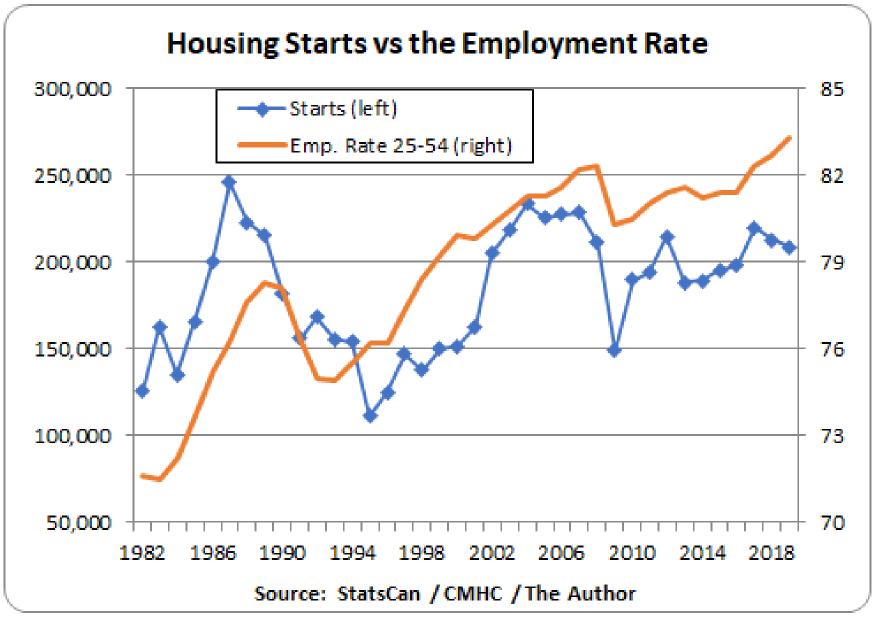
Housing Starts

It was noted earlier that housing completions are an important driver of mortgage growth. Housing completions, of course, depend on how many housing starts have occurred in the past.

There are several drivers for housing starts, including population growth, job creation, and affordability.

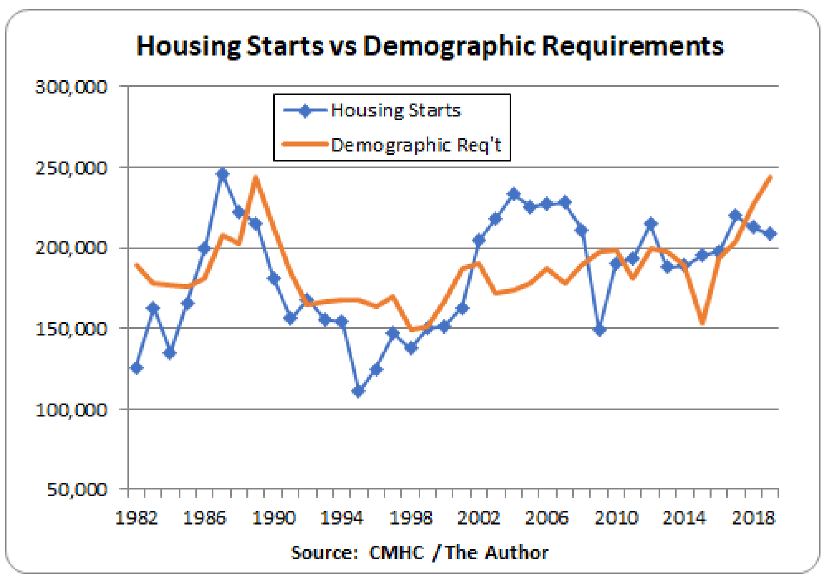
Ultimately, the cause for housing starts is that there is a need to add to the existing housing stock, because more people want to and can afford to form independent households.

This chart illustrates one of the most important relationships: changes in the employment situation (measured by the employment-to-population ratio, especially for the prime working age group) alter the number of people who can afford to buy (or rent) housing in the marketplace. This chart shows that there is a loose relationship: changes in the employment rate tend to be followed a bit later by corresponding movements for housing starts. The employment rate has been at a record high during the past three years. While housing starts are relatively high in historic terms, they have not yet fully responded to the demand that results from a strong economy, and not enough new housing is being built.



The discussion above is about the economic relationship between employment and new housing construction. Another approach is to look at demographic factors.

A growing population causes more people to form households, resulting in a need for more housing. In this chart, the demographic requirement has been calculated (this is done by applying "household formation rates" to the expanding population). Over the time period shown in this chart, the average estimated annual housing requirement (about 186,000) was slightly larger than average housing starts (about 183,700). But, the chart also shows that there have been periods when there were substantial differences between starts and requirements. This occurs because economic factors influence actual outcomes. For example, starts were far below the estimated requirements during most of the 1990s, because the employment situation weakened (meaning that people who might want to form independent



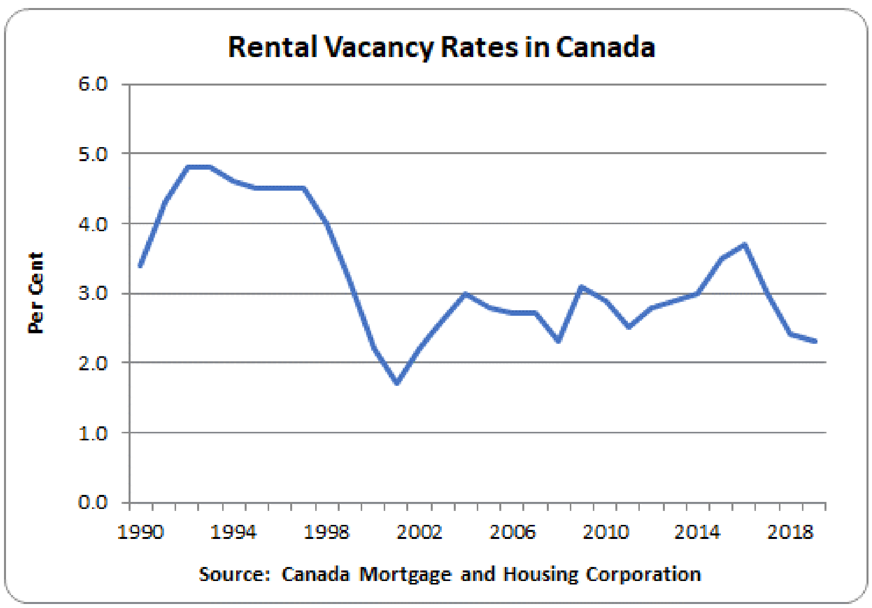
households were unable to, because of their situations). On the other hand, as the employment rate began to improve (starting in 1997, shown in the prior chart) housing starts gradually followed. During 2002 to 2008, a very robust economic environment caused starts to exceed requirements by a considerable margin (and this was justifiable). During the past decade, the employment rate was relatively flat for a while, and as the result housing starts were very close to the requirements. The past decade was actually an unusual period in this regard.

But, during the past three years, the rate of population growth has increased sharply in Canada, which has caused a similarly sharp rise in the estimated requirements. Housing starts have not kept up: for 2019, the estimated requirement is about 245,000, but there were only 208,685 housing starts. This is occurring within a relatively strong economic environment (in which we need production to at least match, and possibly exceed, the estimated requirements). The shortfall of production is already contributing to worsening housing shortages (for both home ownership and rental housing), and the longer the shortfall persists, the worse the results will be in future.

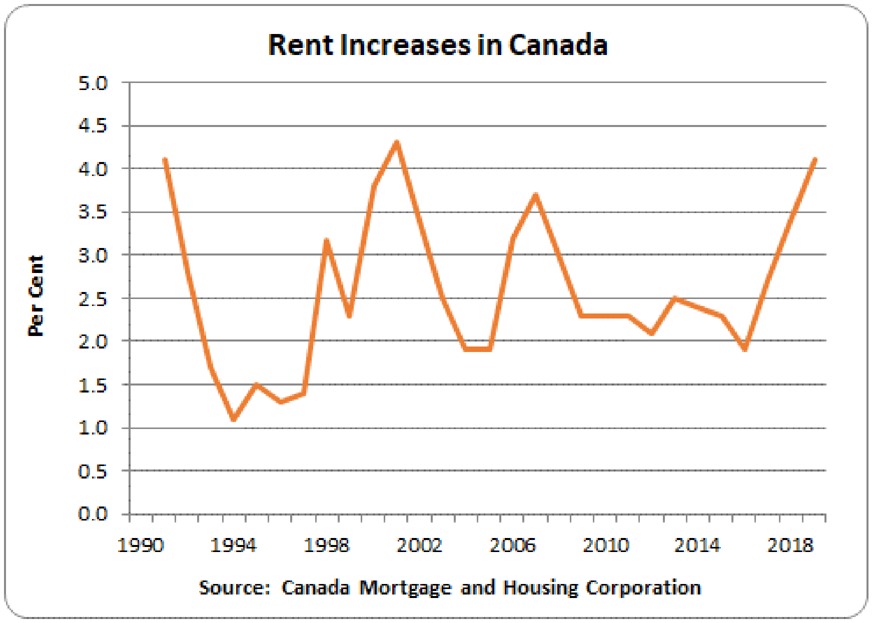
At this time, both of these analysis approaches show that Canada needs to see a substantial expansion of new housing production.

Rental Housing

Each October, Canada Mortgage and Housing Corporation conducts a detailed survey of residential rental markets across Canada. As is illustrated in this chart, vacancy rates are usually quite low, including a rate of just 2.3% for October 2019. This is one of the lowest-ever vacancy rates, and is well below the long-term average of 3.2% (for the period shown in this chart.



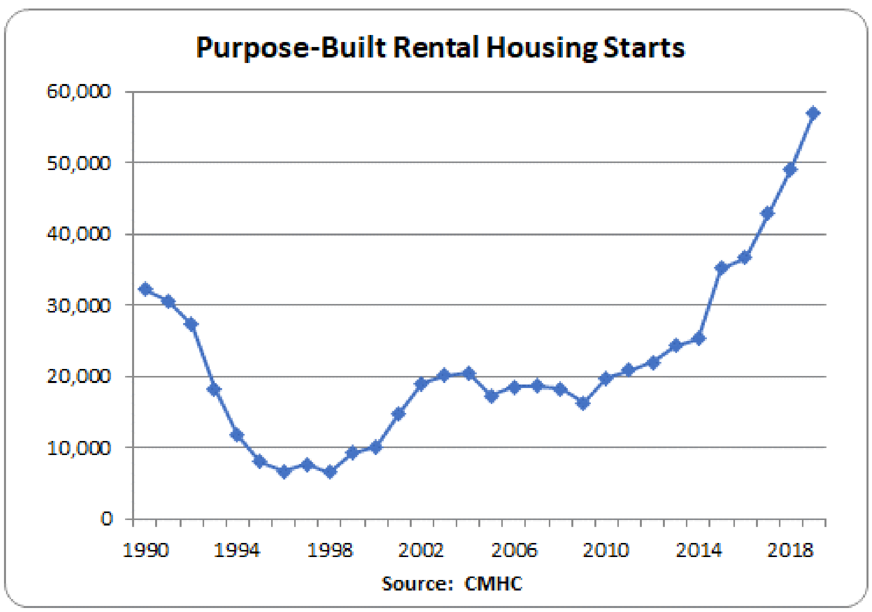
In consequence of the persistent low vacancies, rents in Canada often increase by more than incomes or overall inflation. During the past 29 years, rents in Canada increased by 108%, or 2.6% per year. For 2019, the rate of increase (4.1%) was the second highest seen in the 29 years. A further illustration that rents tend to increase rapidly is that during the 29 years, in inflation-adjusted (or "real") terms, rents increased by 22.6%, or an average of 0.7% per year.



It is sometimes commented that a vacancy rate of 3% is "healthy" or "balanced". I have noticed these statements for the entirety of my career as a housing market analyst (since 1982) but I have never found any research that substantiates the 3% benchmark. What's more, as in the discussion of sales-to-new-listings ratios, it is usually unclear what is meant by healthy or balanced. In response, I have occasionally done statistical analysis of the relationship between vacancy rates and rent increases, in order to estimate vacancy rates that are consistent with rent increases of 2% per year. Using data for the past 20 years, this analysis indicates that in Canada rents would increase by 2% at a vacancy rate of 3.4%. Some additional observations:

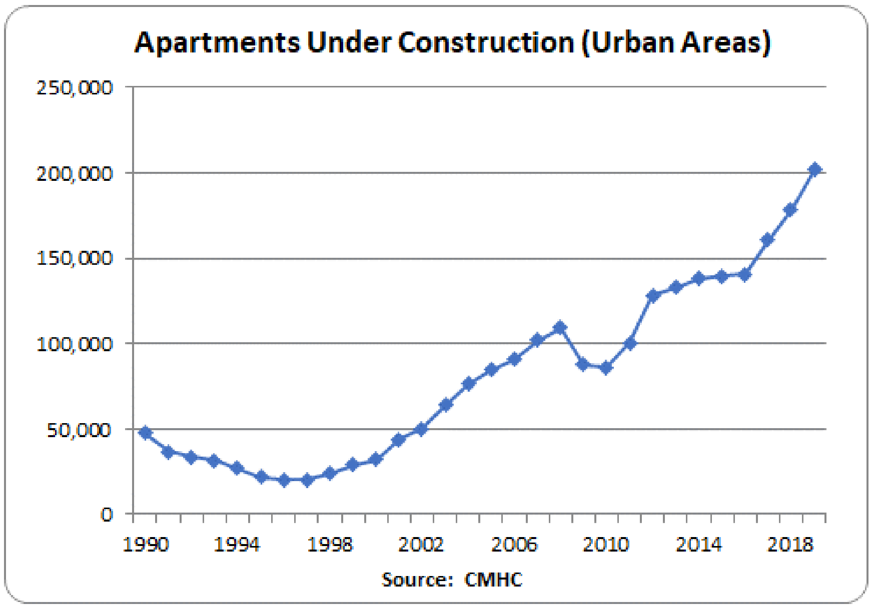
- The balanced market rates vary across the country, as is shown in the next table.
- The statistical relationships change over time. For example, an analysis done as of 2016 shows a balanced market rate for Canada of 3.8%, versus the 3.4% rate that is based on current data.
- Actual rent increases do vary from what is expected by the statistical analysis. For example, CMHC data shows that the actual rent increase for Canada was 4.1% for 2019, which is notably higher than the 3.3% expected by the statistical analysis. Substantive differences are shown in most of the provinces.
- In short, this data shows that landlords are now responding to low vacancy rates by raising their rents quite aggressively.
- Affordability is worsening for tenants.
- Over the long-term, the five easternmost provinces have had average vacancy rates close to the balanced market thresholds, with the result that long-term average rent increases have been close to 2%. The five other provinces have long-term average vacancy rates below the thresholds, which has resulted in average rent increases exceeding 2%.

Table 6-2 *Estimates of "Balanced Market" Vacancy Rates*					
	Balanced Market Threshold	*Long-Term Average*		*Rent Increase for 2019*	
		Vacancy Rate	*Rent Growth (1)*	*Expected*	*Actual*
Canada	3.4%	3.2%	2.6%	3.3%	4.1%
BC	3.2%	2.3%	2.9%	4.4%	4.2%
Alberta	4.4%	3.8%	3.0%	0.1%	1.3%
Saskatchewan	5.7%	3.9%	3.0%	-0.5%	0.9%
Manitoba	4.6%	3.0%	2.7%	2.8%	3.3%
Ontario	3.1%	2.6%	2.9%	4.3%	6.1%
Quebec	3.2%	3.8%	2.1%	3.1%	3.2%
New Brunswick	5.3%	5.2%	1.9%	2.8%	3.1%
Nova Scotia	4.0%	4.1%	2.0%	3.1%	3.7%
PEI	3.7%	3.9%	1.8%	3.0%	2.7%
Newfoundland and Labrador	4.9%	5.6%	1.9%	0.4%	1.0%
Source: analysis by the author, using data from Canada Mortgage and Housing Corporation. Note: (1) based on CMHC's constant sample estimates.					



During the past three decades, the most important source of new rental supplies has been rented condominiums (generally owned by individual investors). So-called "purpose-built rentals" have provided limited new supplies. But, during her past half-decade there has been a noteworthy expansion of new purpose-built rentals in Canada. This is seen as a good sign for the future rental market. I'm inclined to dissent (a bit) from the optimism, for four reasons. (This chart shows starts for all physical types of rental housing. In recent times, 95% of rental starts have been apartments, with small numbers for single-detached, semi-detached, and row rentals.)

Firstly, the increased construction has been stimulated by a combination of very low interest rates and the escalating rents that are being achieved by new rentals.[22] For example, for the Toronto CMA, CMHC data shows that for one-bedroom apartments built in 2000 or later, the average rent was $1,965 in October 2019. This is 45% higher than for apartments built during 1960-1979 (average $1,356), and 38% higher than for apartments built during 1980-1999 (average $1,424). These are the average rents for all apartments: for apartments that become available for occupancy, asking rents are even higher. As a result, these new rentals will not be affordable to typical renters with moderate incomes. To a limited extent, as the new supply is rented it will reduce demand for the older, modest inventories, slightly improving availability and slightly reducing pressures on rents. But, this new supply will not materially lessen the crisis for affordable rentals.



Secondly, there is now a very large volume of apartments under construction in Canada (this chart shows the combined total for rental and condominium apartments). These (and some future starts) will be completed and available for occupancy during the coming 3 years (that is, about 100,000 per year). A large share of new condominiums are made available as rentals, so that as apartments are completed as much as three-quarters of them will be offered for rent (perhaps 75,000 per year). This supply of high-end rentals may exceed market demand, resulting in high vacancies and softer rents in the high end of the market, but with little impact at moderate rent levels. Within CMHC's detailed data for Toronto, we are seeing an early hint of this: the October 2019 vacancy rate for the newest apartment buildings (2000 and later) was 4.4%, versus a 1.5% rate for all ages of buildings. For the 1960-1979 cohort, the vacancy rate was 1.2% and for 1980-1999 buildings it was 0.9%.

A sidebar comment: rented condominiums have less security-of-tenure compared to purpose-built rentals (because condominium owners can evict tenants in order to occupy the dwellings themselves). Therefore, an expanding supply of purpose-built rentals could lessen demand for

[22] I have discussed my understanding of the reasons for this a bit more in my personal Twitter account, here: https://twitter.com/LooseCannonEcon/status/1220353418532999168

rented condominiums, which might lower their rents, reducing investment interest within the condo market, which in turn might reduce pressure on selling prices and make it easier for owner-occupants to buy.

Thirdly, one of the lessons from a first-year economics class is that in industries that are highly competitive and have long production periods, there is a tendency to instability (alternating periods of over-production and under-production): during periods of high pricing, decisions are made that result in excess supply in future, which results in lower future prices, and then reduced production in future, etc.[23] We may be seeing this now, as current new supplies are predicated on expectations of very high rents and as noted above there is some early evidence that an excessive supply is being built. There is a possibility that by 2021 or 2022 actual attained rents could be non-trivially lower than had been expected, with the result that rental starts could fall substantially.

The fourth point is a lesson that I have learned in my attempts to forecast rental markets across Canada. One of the challenges is that because the data is collected only once per year, there are few datapoints available to be analyzed. It is necessary to create very simple forecasting models, and there is a lot of uncertainty about the reliability of the forecasts (and the forecasts are often wrong). But, having tried to build forecasting models for many locations, I have noticed a pattern. Consistently, there are two economic factors that have the greatest influence on vacancy rates:

- Growth of employment (which influences how much supply is needed).
- Total completions of new housing. This result was surprising to me. I had expected that the important supply factor would be completions of new rentals. On reflection, it makes sense that the "broad" housing supply is more important: more supply of non-rental housing means that there are more opportunities for people to move out of rentals.[24]

The implication from this discussion is that even though the next two or three years will see more rental supply, there will be insufficient growth of total housing supply (particularly for low-rise ownership dwellings). As was argued earlier, there is a current need for about 245,000 new dwellings per year in Canada, but total completions this year will be in the area of 200,000. The result is that I expect the vacancy rate to fall further this year, with continued pressure for rents to rise by more than incomes, resulting in a further worsening of affordability conditions. As has been discussed, these effects will be most pronounced within the older, moderate cost rental inventories.

[23] In my time, this was referred to as the "hog cycle", A short explainer can be found here: https://en.wikipedia.org/wiki/Pork_cycle
[24] Another surprising result has been that resale market activity does not appear to affect vacancy rates. I think this is because resale transactions don't change the total demand or total supply of housing, they just reorganize who lives in the dwellings.

Forecasts

The table below summarizes the most recent forecasts from the five largest Canadian banks (showing the averages of the forecasts). These forecasts expect little change for housing starts (with activity remaining far below my estimate that the current demographic requirement is 245,000 starts per year). Resale activity is projected to continue to improve, and the average price is expected to rise. The banks' economists also expect that interest rates (bond yields) will rise slightly during 2020 and 2021. (However, there is a long history that the bank economists expect higher rates. During the past decade, there has typically been an expectation of a rise of 0.75 point or more during the coming two years. The current expectation of a 0.33 point rise is lower than usual.)

Table 6-3
Forecasts from the Major Banks

	2019 Actual	*2020 Forecast*	*2021 Forecast*
Housing Starts	208,686	205,600	207,400
Resale Transactions (1)	488,828	523,301	536,357
Growth of Average Resale Price (2)	2.5%	5.3%	3.4%
Yield for 10-Year Government of Canada Bonds	1.59%	1.63%	1.92%

Source: internet survey by the author, February 1, 2020.
Notes: (1) based on forecasts from 2 banks.
(2) based on forecasts from 3 banks.

A Scan Across the Provinces' Housing Markets

In this section, market trends are reviewed for the 10 provinces, utilizing data on resale markets from the Canadian Real Estate Association ("CREA"), as well as data from Statistics Canada (population, used in the generation of the second charts) and from Canada Mortgage and Housing Corporation (housing starts and rental market data). The analysis covers January 2009 to December 2019. For each province, eight charts are shown:

- Sales (seasonally-adjusted and converted to an annualized basis).
- Sales per adult.
- The sales-to-new-listings ratios.
- Average resale prices.
- Year-over-year growth in the average prices.
- Housing starts (expressed as seasonally-adjusted annualized rates, in 1,000s).
- Vacancy rates.
- Rent increases.

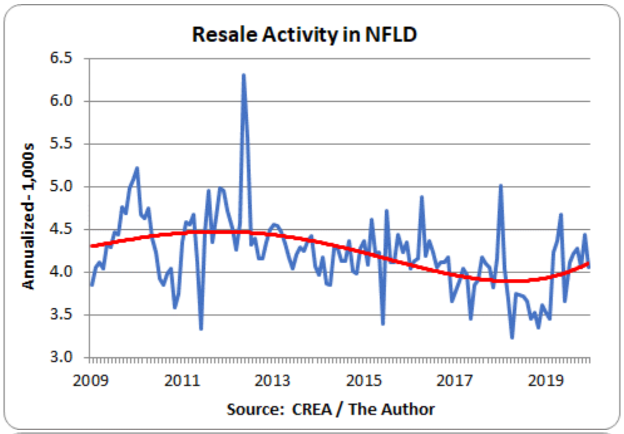
Since the data can be volatile from month-to-month, trend lines have been added where the author sees fit. Yet, in some cases, the mechanically-generated trend lines are not especially trustworthy, often because of volatility at the end of the available data.

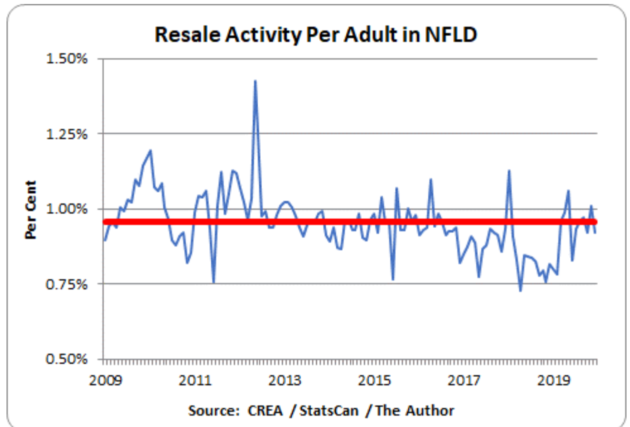
Housing market trends have partially recovered from impaired levels that were seen during 2018:

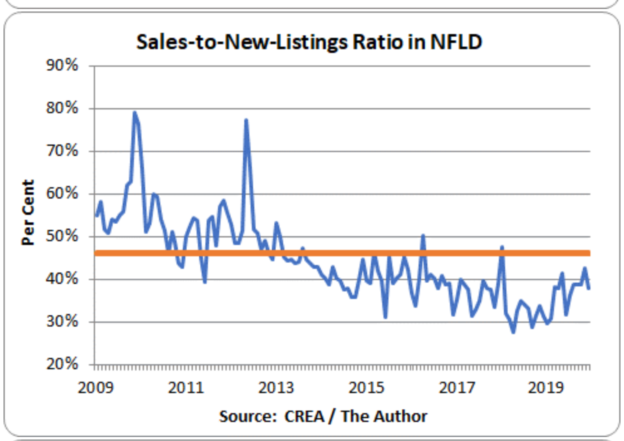
- Total resales for 2019 were higher than in 2018 in all provinces except for PEI, Alberta, and British Columbia.
- Sales-to-new-listings ratios have increased in most provinces. At the end of the year, the SNLRs were above the balanced market thresholds (which are illustrated in these charts with wide, flat orange lines) in six of the provinces, with the exceptions of Newfoundland and Labrador, Manitoba, Saskatchewan, and Alberta. Consequently, price growth has recently accelerated in most of the provinces. In the provinces that have sales-to-new-listings ratios below the balanced market thresholds, the result has been flat or only gradually eroding prices. House prices tend to be "sticky downwards": sellers resist dropping their price expectations, and will often withdraw from the market rather than reduce their price. It can happen that the "sticky downwardness" for house prices dissolves spontaneously, resulting in sharper drops.
- Housing starts tend to follow behind resale markets, and changes during 2019 were less dramatic than in the provinces' resale markets. Total starts for 2019 were lower than in 2018 in Newfoundland and Labrador, Nova Scotia, Ontario, Manitoba, and Saskatchewan. Increases were seen in PEI, New Brunswick, Quebec, Alberta, and BC.
- Rental market vacancy rates are below the balanced market thresholds (which are illustrated with the wide, flat orange lines) in most provinces, with rent growth exceeding 2%. The exceptions are Newfoundland and Labrador, Saskatchewan, and Alberta.

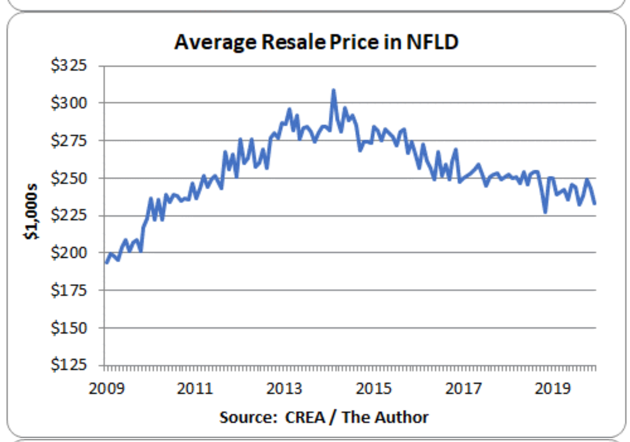
Newfoundland and Labrador

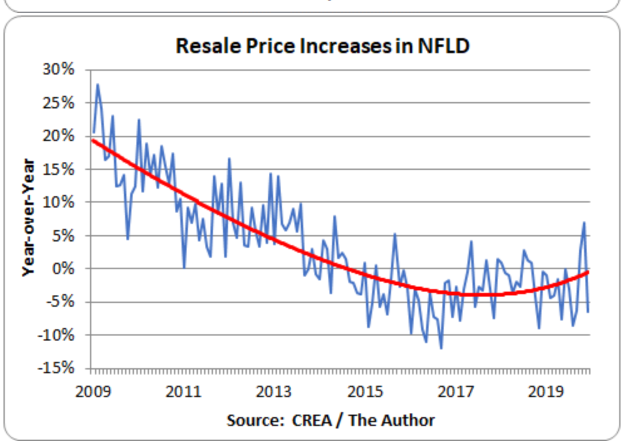
Lower interest rates allowed resale activity to improve during 2019, from the very weak performance of 2018. The per adult sales rate was close to the long-term average during the second half of the year. While the SNLR has increased, it remains below the province's balanced market threshold (which is estimated at 46%). Due to volatile movements in the average price, there is uncertainty about the recent price trend. The data suggests that prices are flat or falling slightly. Housing starts remain very weak, although there was a tentative hint of recovery during the second half of 2019.

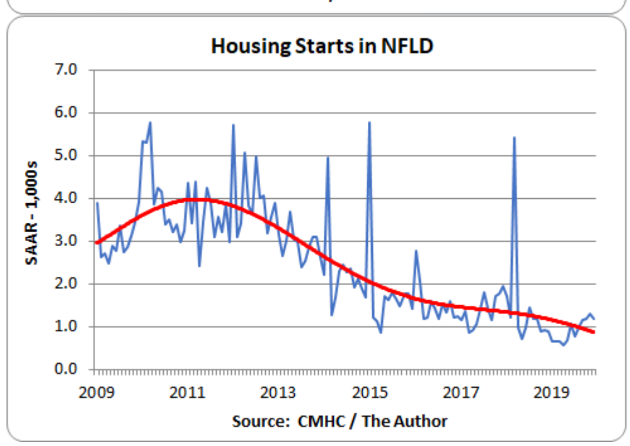




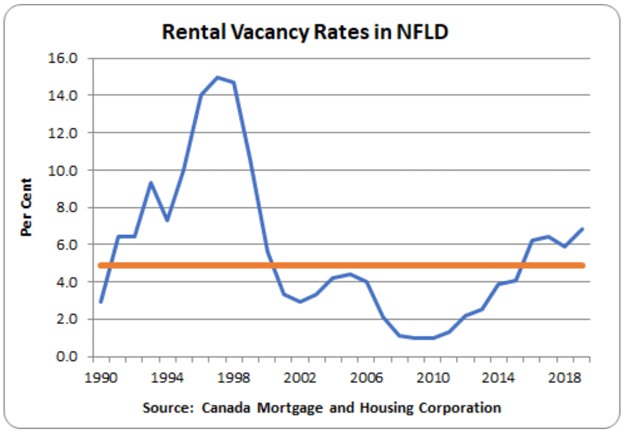


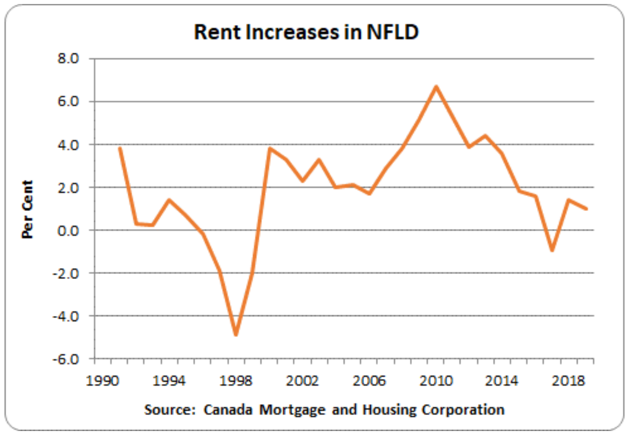






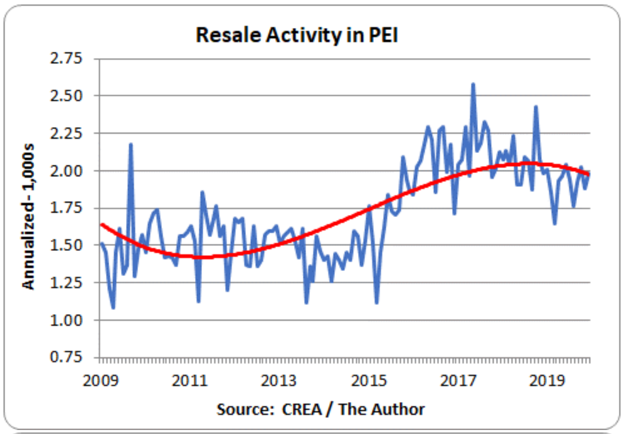
A weakened employment situation has resulted in high vacancies in Newfoundland and Labrador. The current vacancy rate of 6.8% is above the balanced market threshold (4.9%) and the long-term average (5.6%). During the past three years, rents have increased by just 1.4%, or an average of less than 0.5% per year. The long-term average increase has been 1.9%.

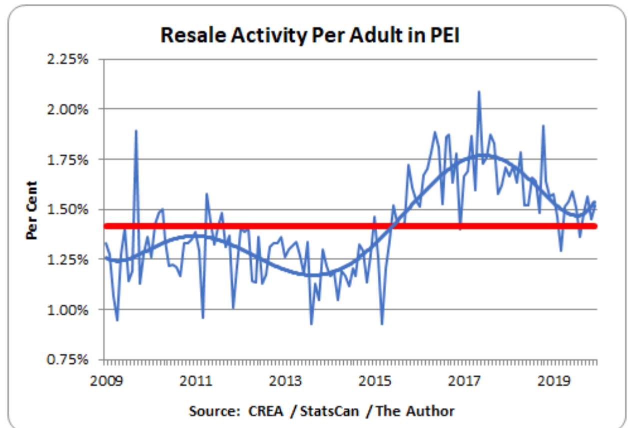


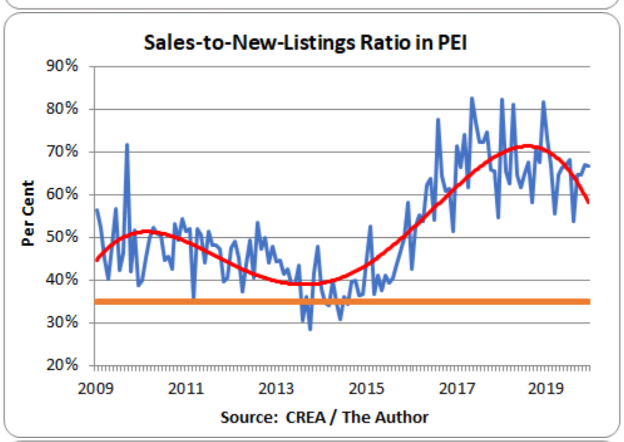


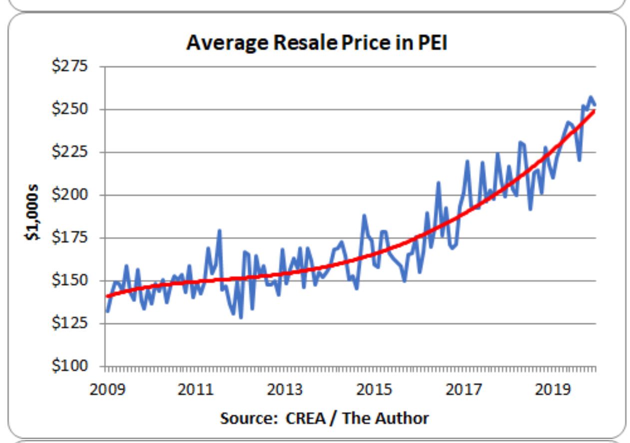
Prince Edward Island

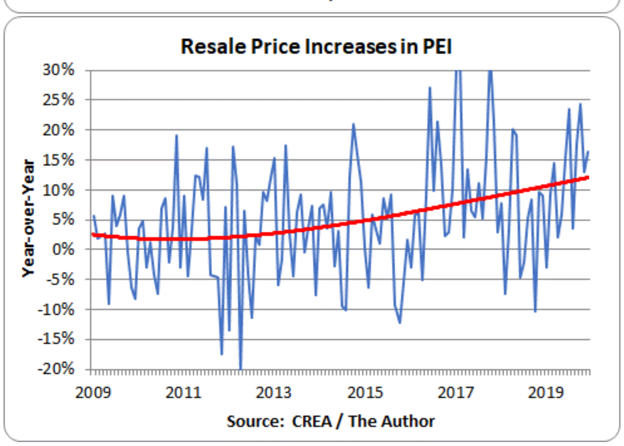
Resale activity has slowed from the great strength seen during 2016 and 2017. The per adult sales rate is still above the long-term average, as population in-flows continue to generate demand. The SNLR has been reduced, but remains very high, causing continued rapid price growth (the balanced market SNLR is estimated at 35%, but this has very low statistical reliability and there is uncertainty about the "true" threshold). Housing starts are now responding to the strong signals being sent from the resale and rental markets.

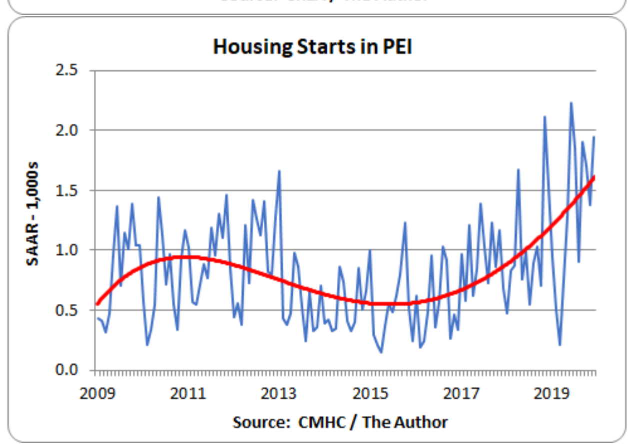




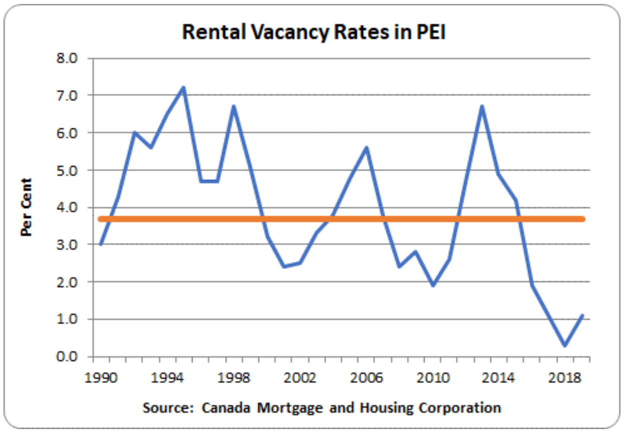


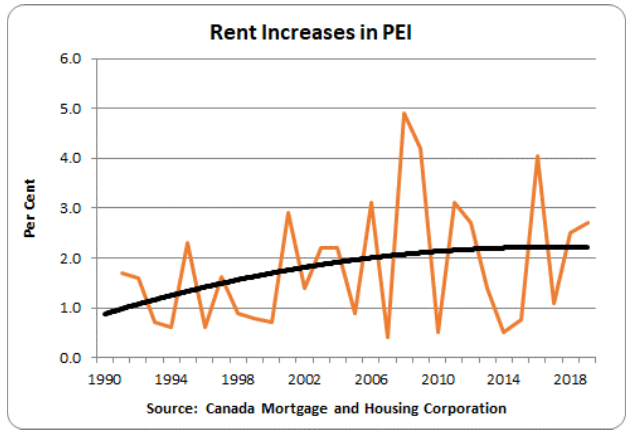






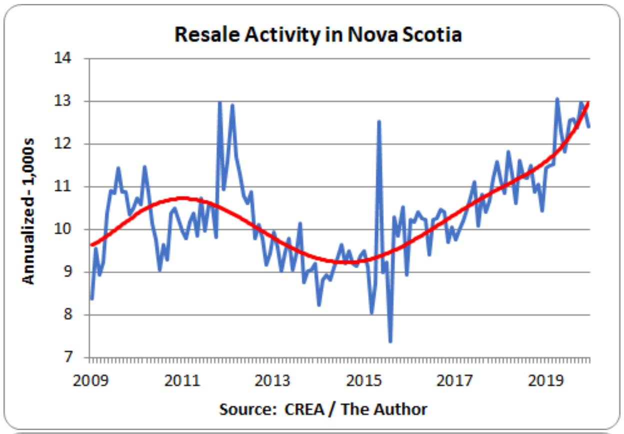
The province's vacancy rate has been extremely low during the past four years, and was just 1.2% in 2019, versus a long-term average of 3.9% and a balanced market vacancy rate of 3.7%. During the past four years, rents have increased by an average of 2.6% per year. The long-term average increase has been 1.8%.

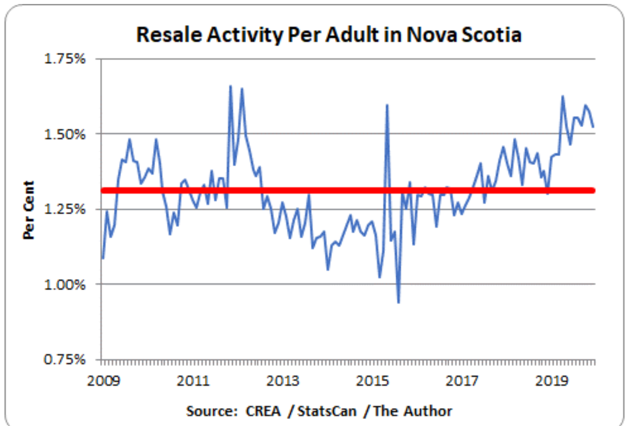


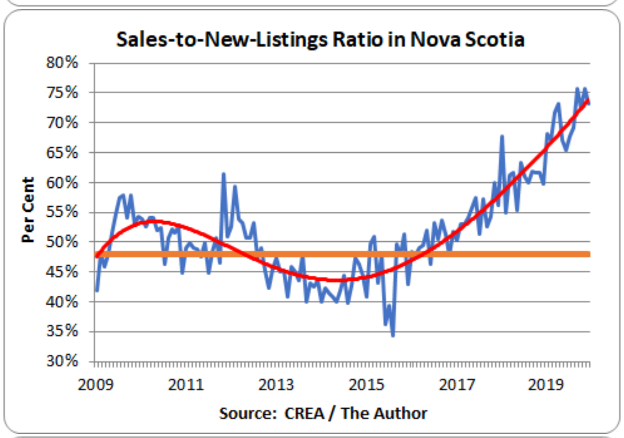


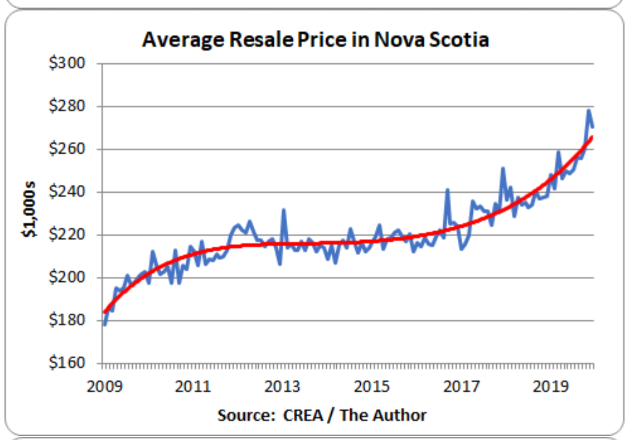
Nova Scotia

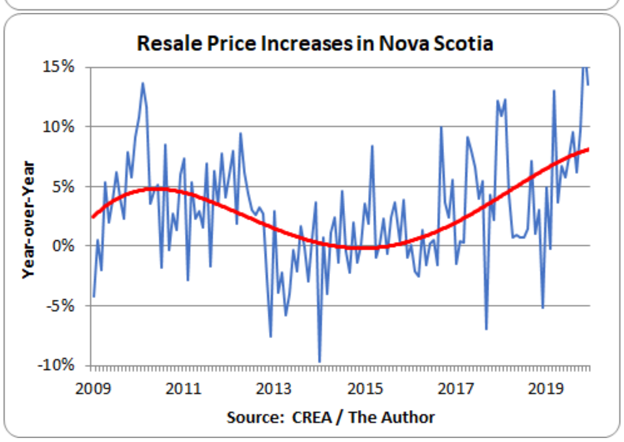
Strong fundamentals (population and job growth) have caused robust housing demand. The stress tests interrupted the uptrend during 2018. But, with the stimulating effects of lower interest rates in 2019, the expansion has resumed. Listings have not kept up with demand, pushing the SNLR to a very high level, far above the balanced market threshold of 48% and causing prices to accelerate. Housing starts remain at a high level, following the strength that has emanated from the resale and rental sectors.

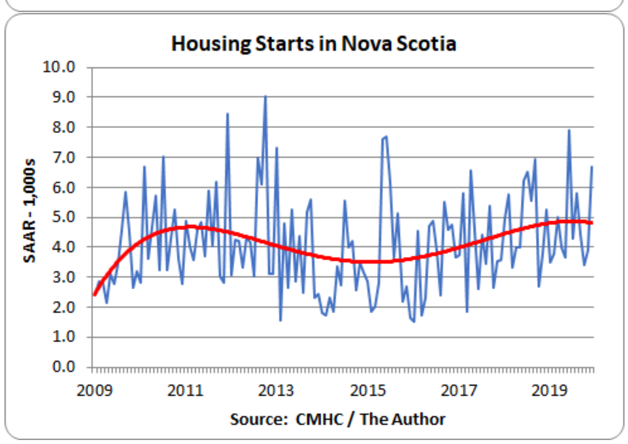




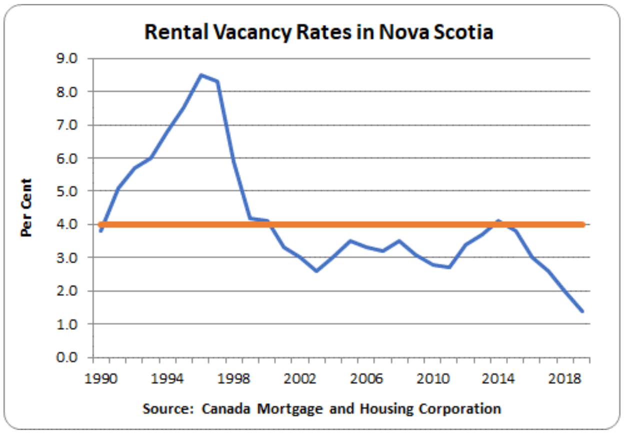


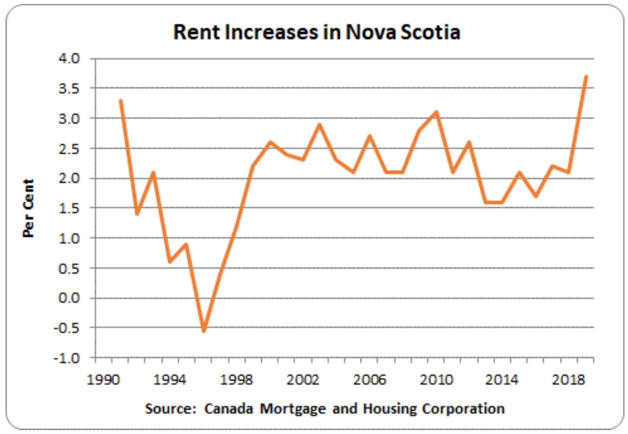






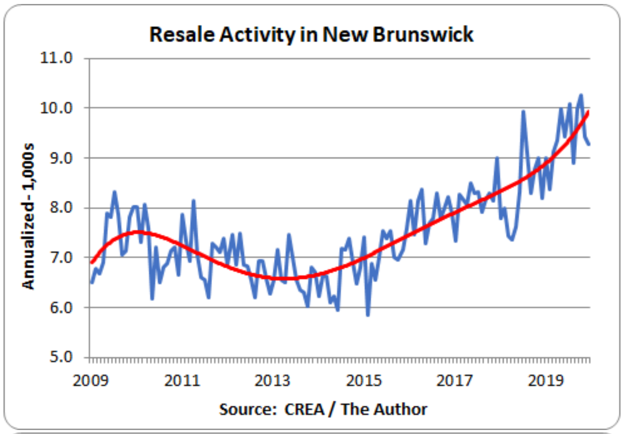
An improving economic environment and increased population growth has caused the vacancy rate to fall to an extremely low level. The vacancy rate for 2019 was just 1.4%, versus a long-term average of 4.1% and the balanced market threshold of 4.0%. Rents increased rapidly in 2019 (by 3.7%). The long-term average increase has been 2.0%.

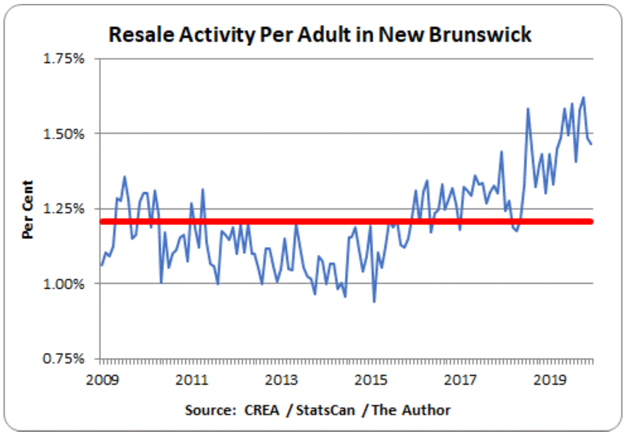


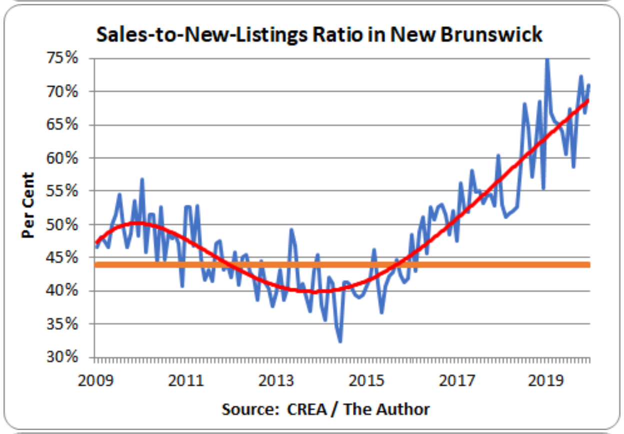


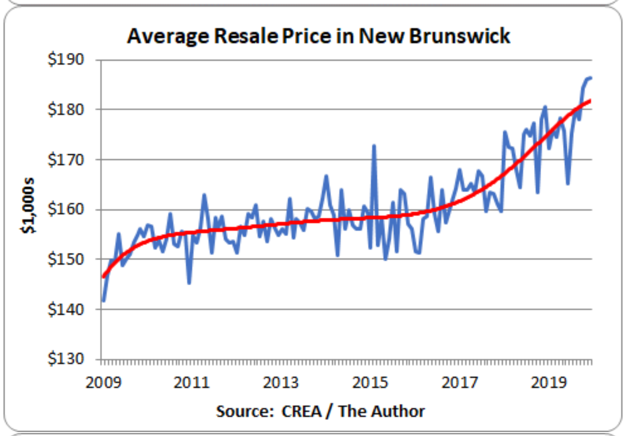
New Brunswick,

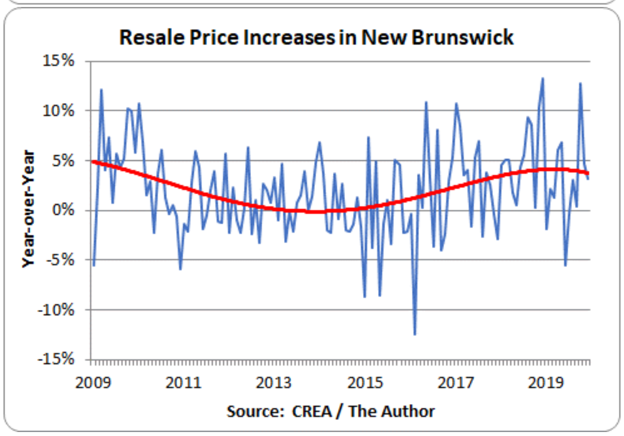
Trends are similar to those seen in Nova Scotia: strong fundamentals have result in robust sales (apart from the pause caused by the stress tests during 2018). Shortages are causing stronger price growth. The SNLR is now far above the balanced market threshold (44%). Housing starts are improving in response to the tight resale market. Some further rise of the starts trend is likely.

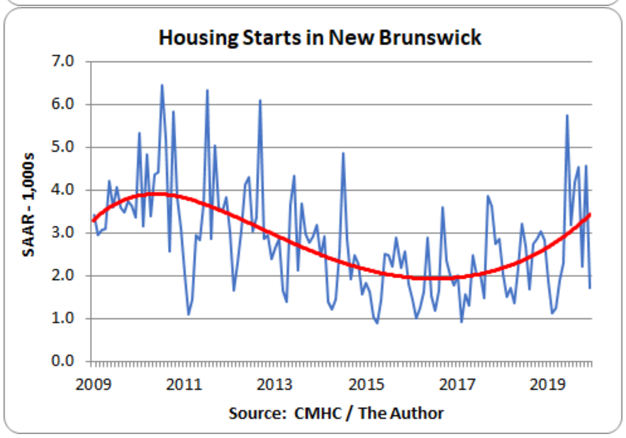




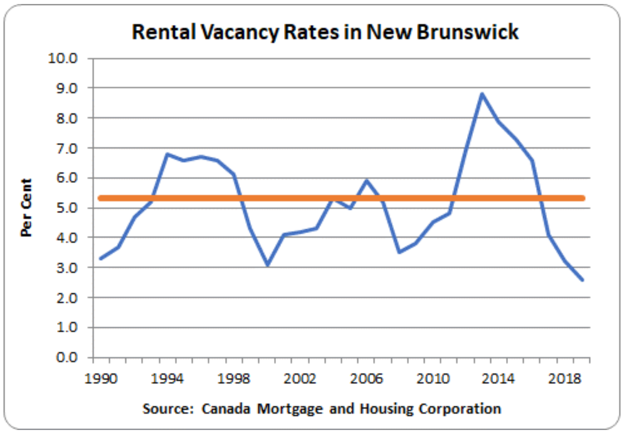


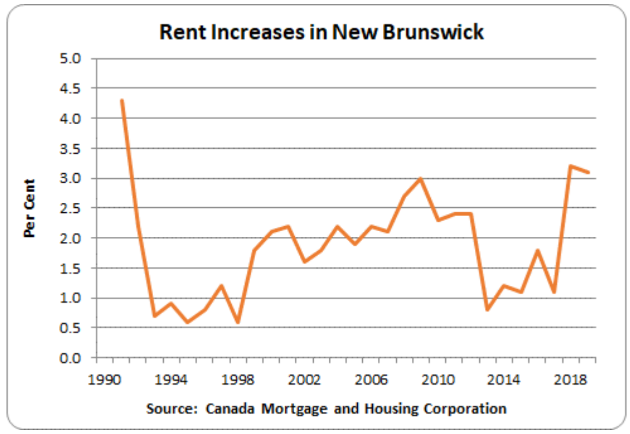






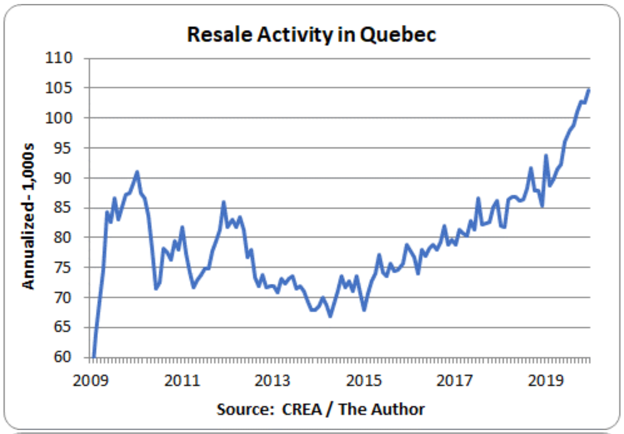
During the past six years, rental markets in the province have transitioned from extremely high vacancy rates to extremely low rates. The 2019 rate of 2.6% was only one-half of the long-term average (5.2%) and the balanced market threshold (5.3%). Rent growth has also transitioned, from very soft to very strong, with rates of increase exceeding 3% in both 2018 and 2019. The long-term average increase has been 1.9%.

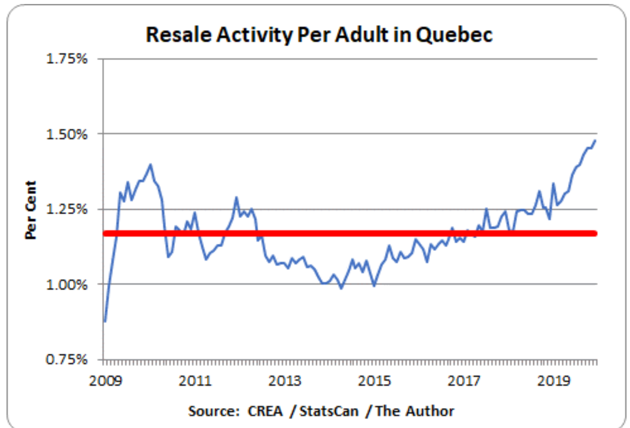


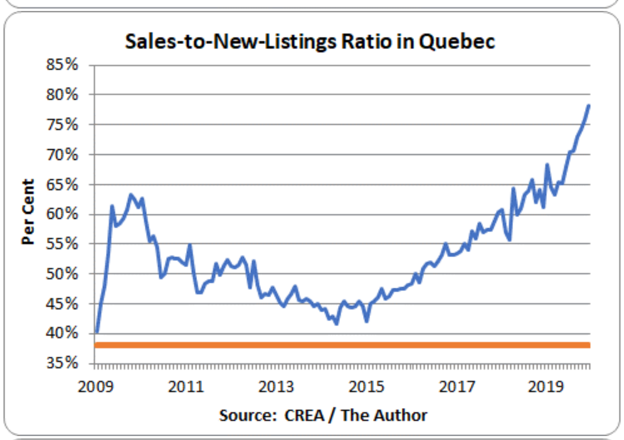


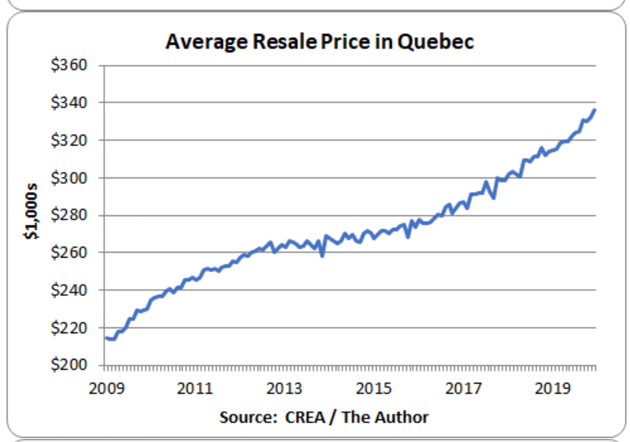
Quebec

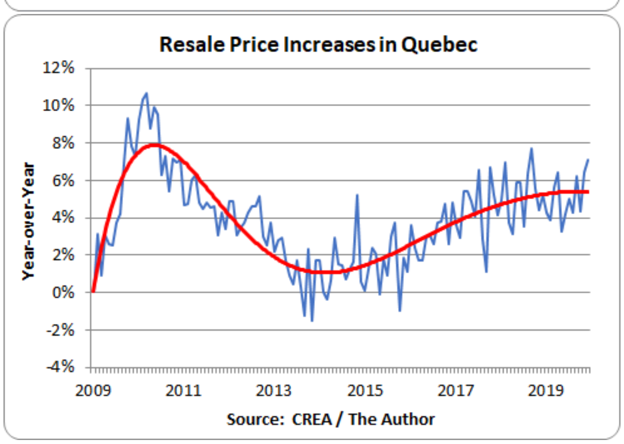
Resale activity continues to strengthen, consistent with very positive economic fundamentals (one also wonders if restrictive policies in BC and Ontario are causing some activity to shift to Quebec). The SNLR is far above the balanced market threshold (estimated at just under 40%). Volatile data creates uncertainty about the trend for price growth, but the rate appears to be about 5% per year. The recovery for housing starts may also be tapering, at a time when a larger volume is required.

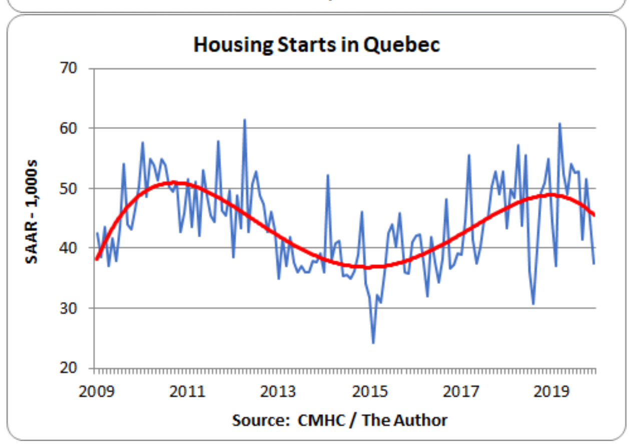




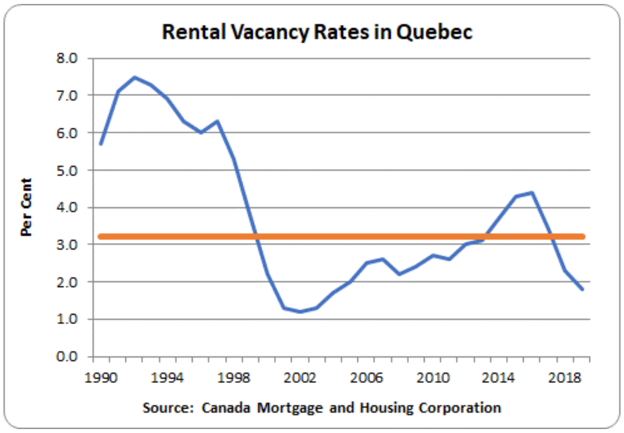


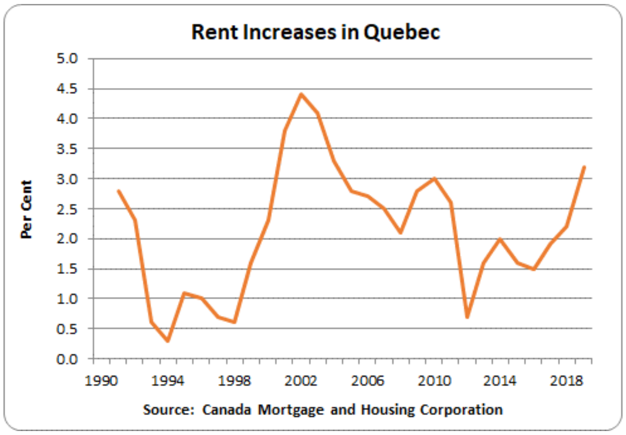






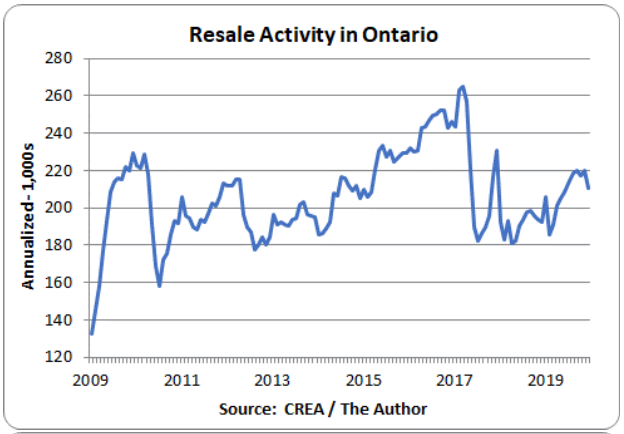
A very strong provincial economy has resulted in falling vacancy rates. The 2019 rate of 1.8% is less than one-half of the long-term average (3.8%) and is well below the balanced market threshold (3.2%). Rents rose by 3.2% in 2019. The long-term average growth rate is 2.1%.

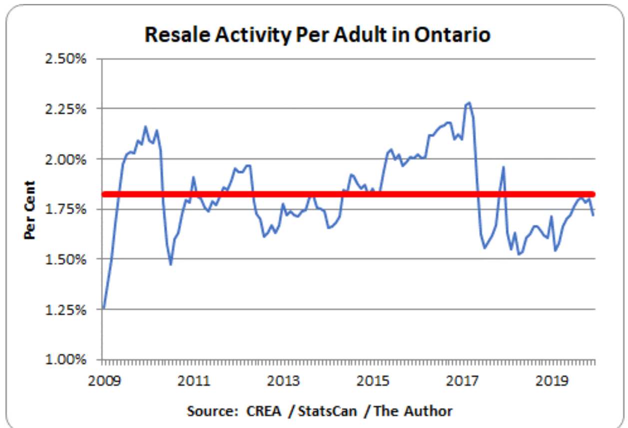


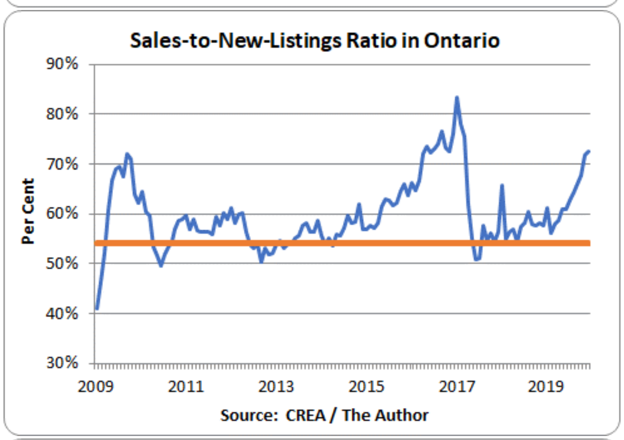


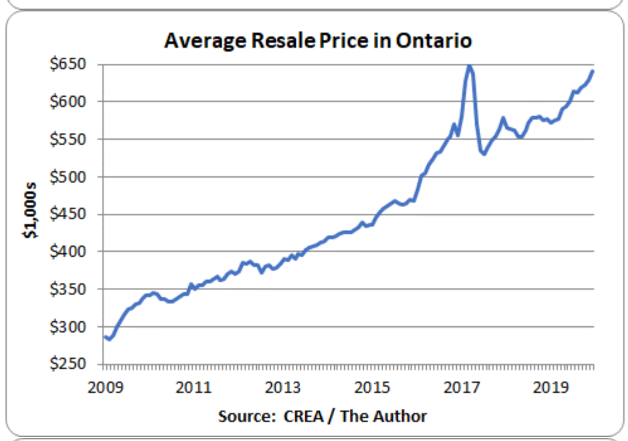
<u>*Ontario*</u>,

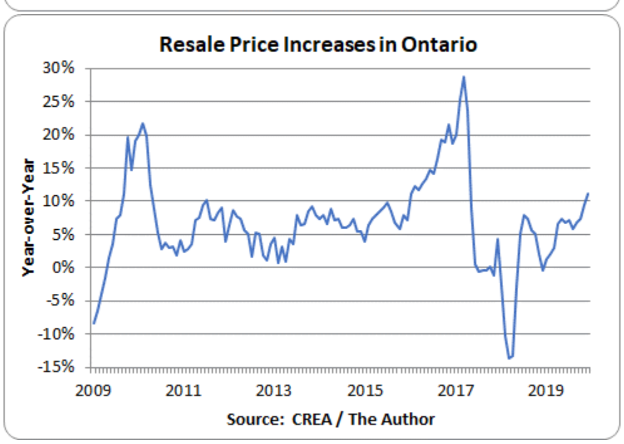
Low interest rates have partially offset the negative effects of the stress tests: given very strong population growth and low interest rates, sales per adult should be above average, not at or below the average level. In recent months, the SNLR has risen to far above the balanced market level, which is estimated at 54%. Prices are now responding to the tight conditions. Housing starts are much lower than is needed, given recent rapid population growth. The production shortfall is very pronounced for low-rise dwellings.

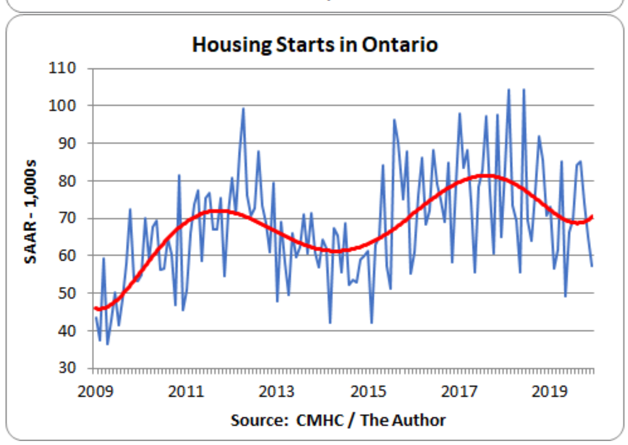




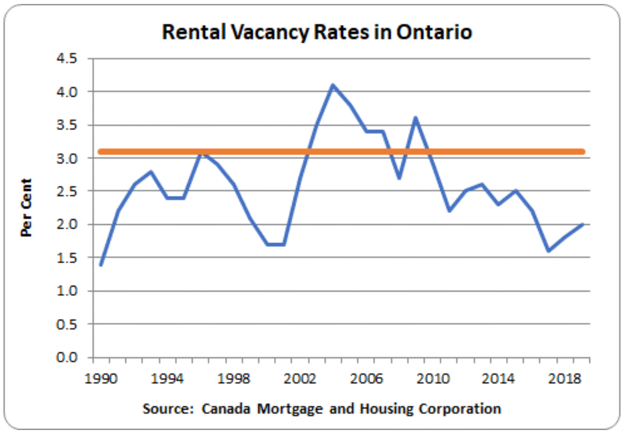


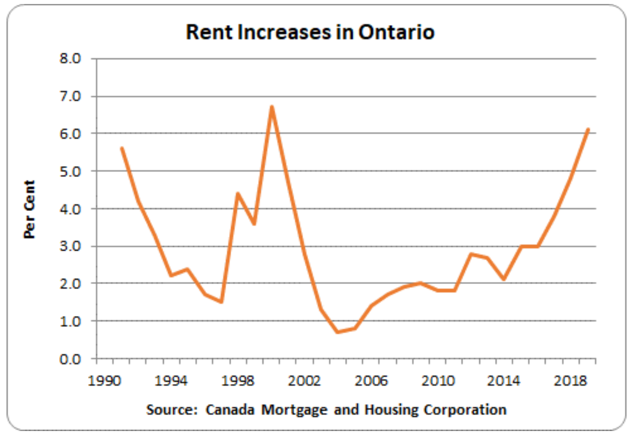






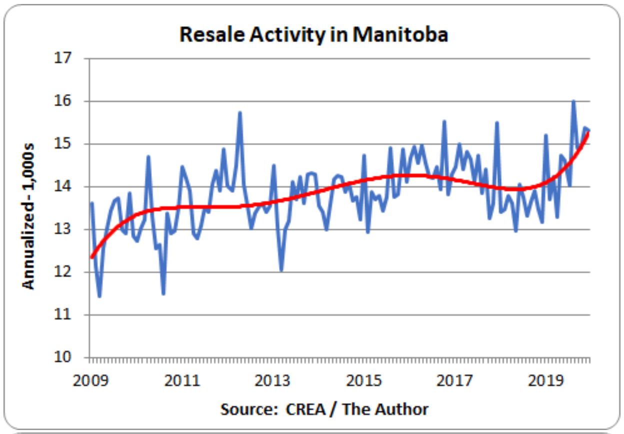
I was expecting the vacancy rate to fall in 2019 (due to strong growth of population and employment versus inadequate production of new housing), but the vacancy rate rose. The 2019 rate of 2.0% is below the long-term average of 2.6% and the balanced market threshold of 3.1%. The unexpected rise in 2019 is due to aggressive rent setting, which has worsened affordability conditions and suppressed demand (not just in the GTA, but in many communities across the province). For 2019, rents are estimated to have increased by 6.1%. During the past three years, the average increase has been 4.9% per year. The long-term average is 2.9%.

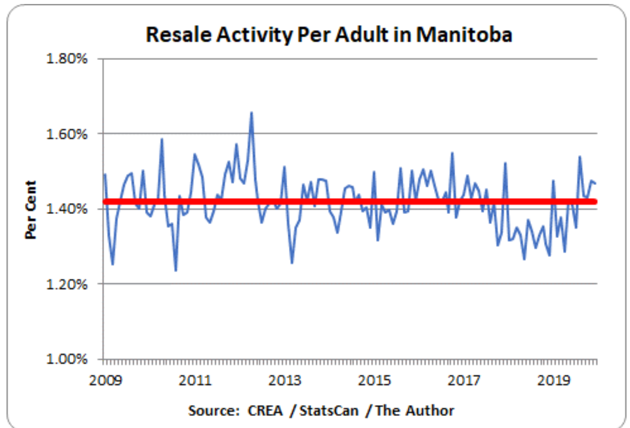


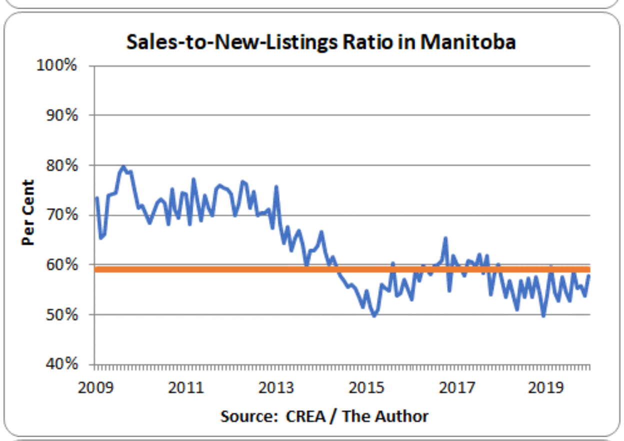


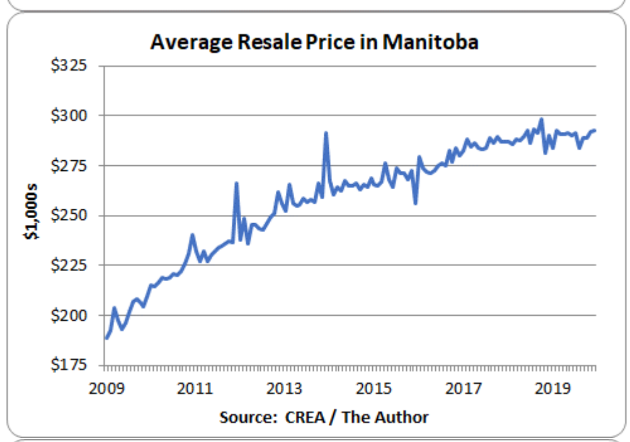
Manitoba,

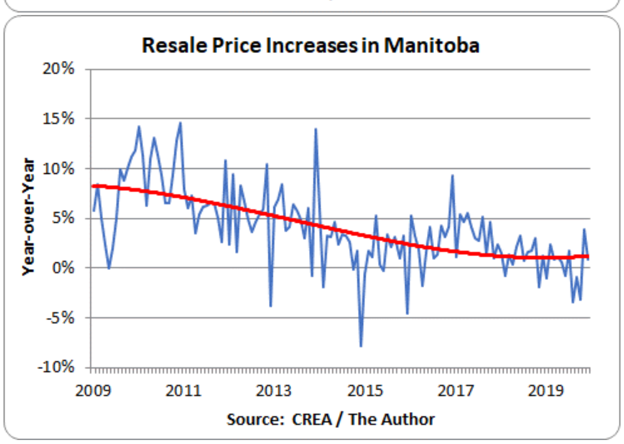
Resale activity has increased quite strongly in recent months, which has no doubt been influenced by falling interest rates. However, there is uncertainty about how much of the upturn is a "data artifact" (the result of expanding the reporting area for Winnipeg). The rate of sales per adult is just slightly above the long-term average. The SNLR remains slightly below the balanced market level (59%), resulting in very little price growth (the trend line shows a rate of about 1%). Housing starts have been roughly flat during the past decade, in response to neutral pressures from population growth and job creation.

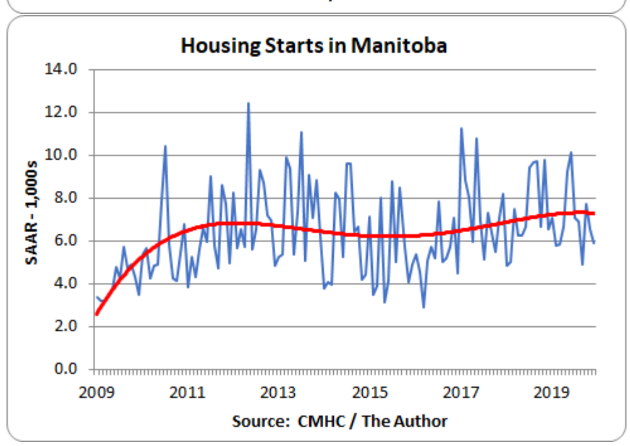




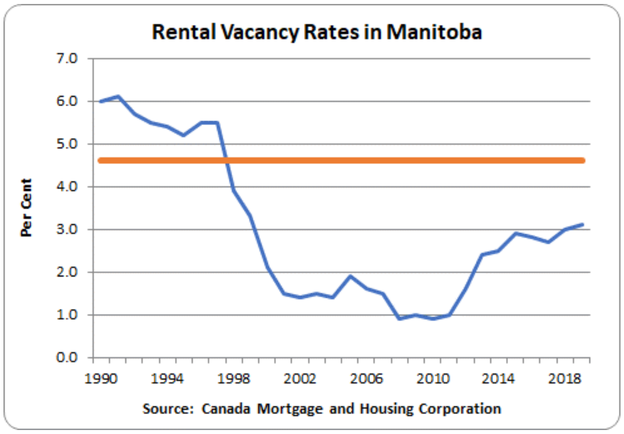


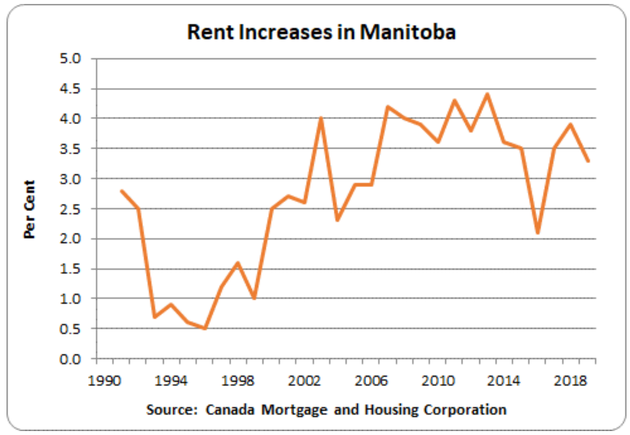






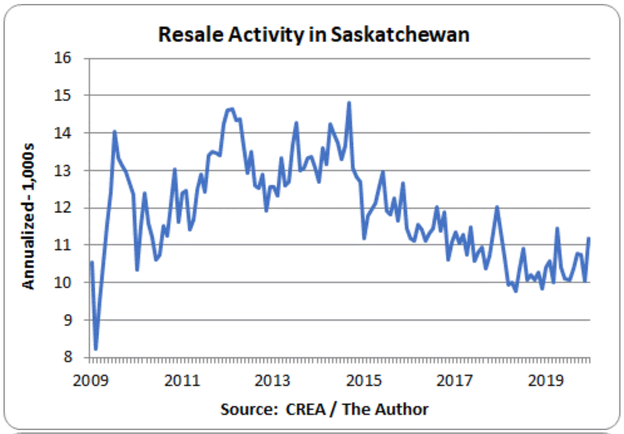
The province's vacancy rate has been relatively stable in recent times, as housing supply has been in step with demand. The 3.1% vacancy rate for 2019 is very close to the long-term average (3.0%). During the past two decades, vacancy rates have been well below the balanced market threshold (4.6%), with the result that rents have increased by more than 2% in every one of the past 20 years (and an average of 3.3% per year during the 20 years). The 29-year average increase is 2.7%.

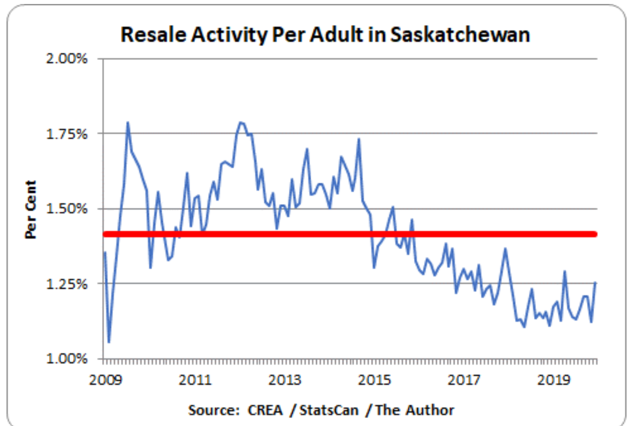


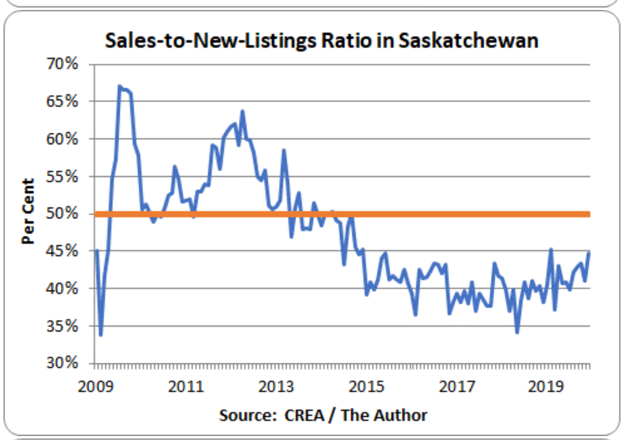


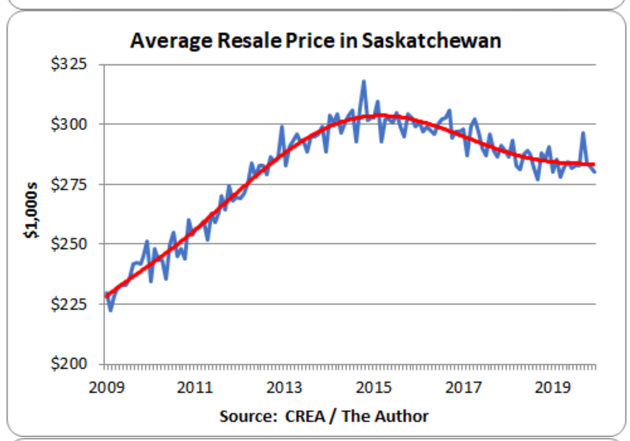
Saskatchewan

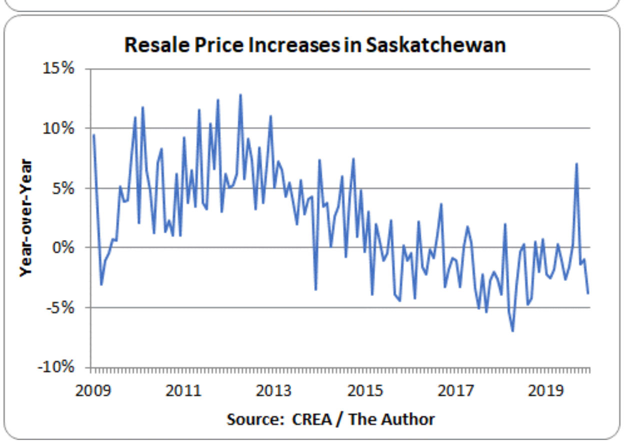
Resale activity in Saskatchewan remains very weak due to very soft economic conditions (but, at least the prior downward trend appears to have ended). The SNLR is far below the balanced market threshold (estimated at 50%) although it did improve slightly during 2019. Prices have eroded slightly during the past five years. For 2019, the average price was about $2,000 lower than in 2018. Housing starts remain very weak.

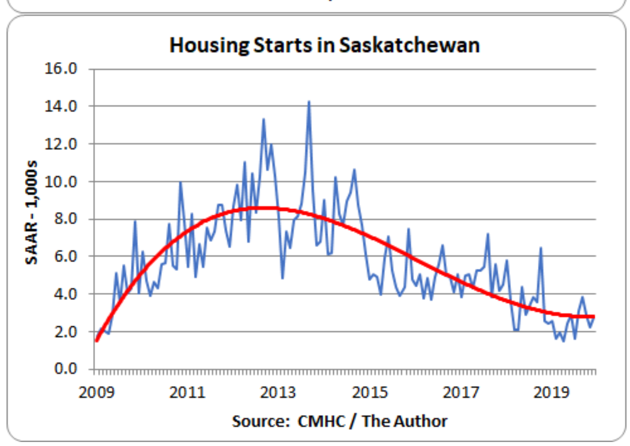




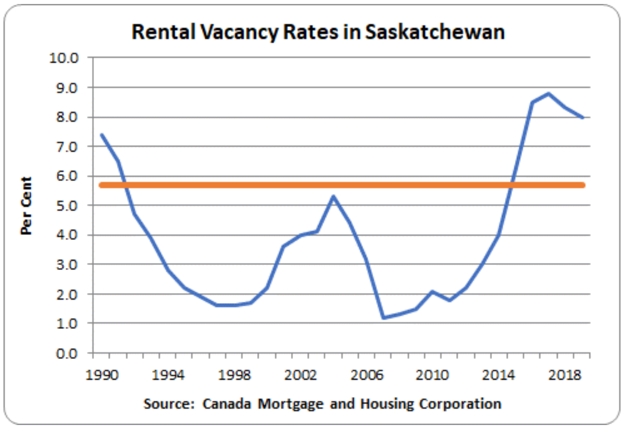


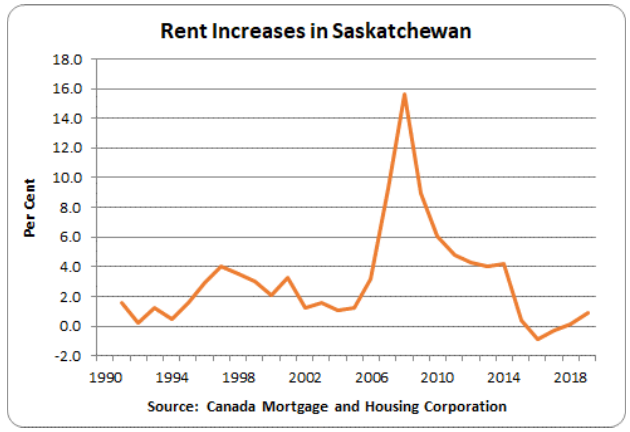






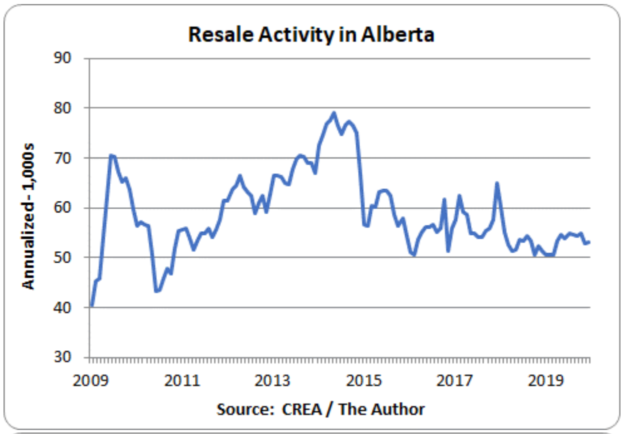
Following a long period of chronically low vacancy rates, Saskatchewan has seen elevated rates during the past five years. The 2019 vacancy rate of 8.0% is far above the long-term average of 3.9% and the balanced market threshold of 5.7%. High vacancy rates have resulted in little change for rents. According to CMHC's estimates of constant sample rent increases, rents are now slightly lower than five years ago. The long-term average rent increase is 3.0% per year.

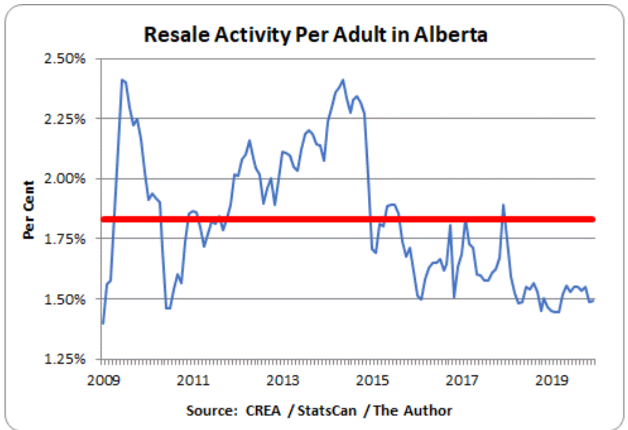


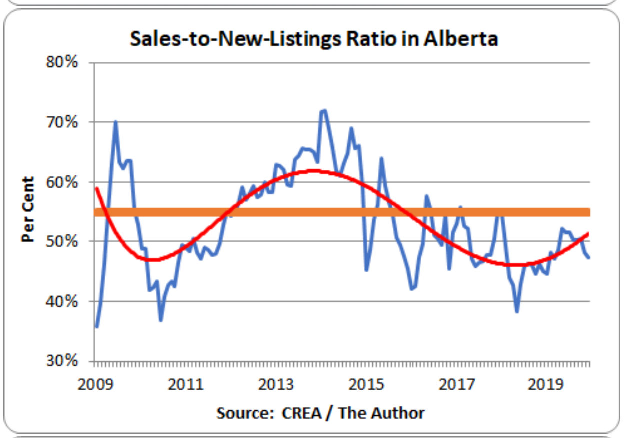


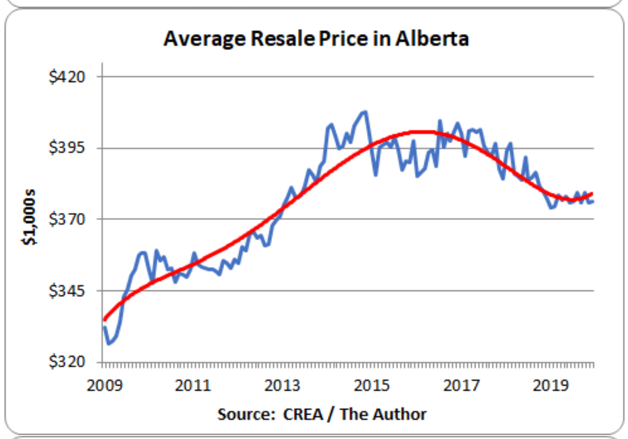
Alberta

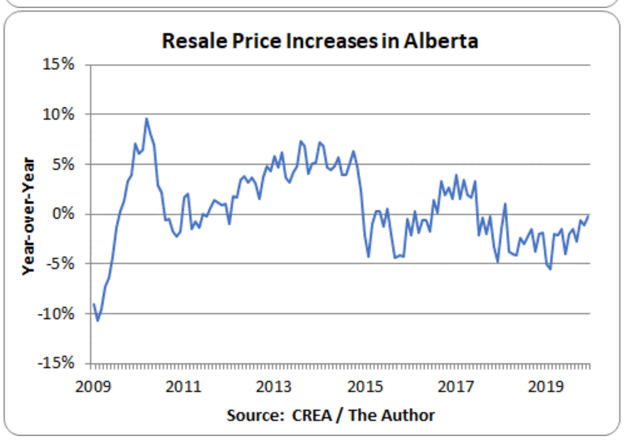
Resale activity remains very weak in Alberta, under the continued negative effects of the soft employment situation and the mortgage stress tests. The SNLR has improved, but remains below the balanced market threshold (estimated at 55%). The price data hints that the erosion has recently ended. Housing starts increased slightly in 2019, but are still 17% below the 20-year average.

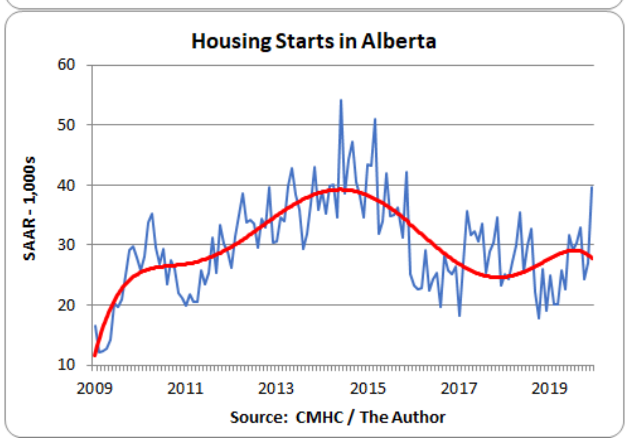




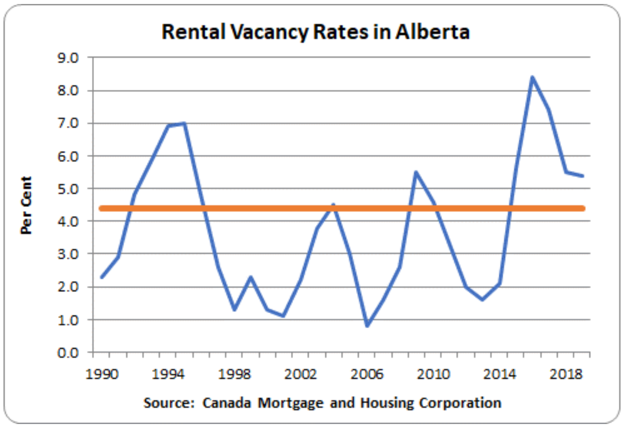


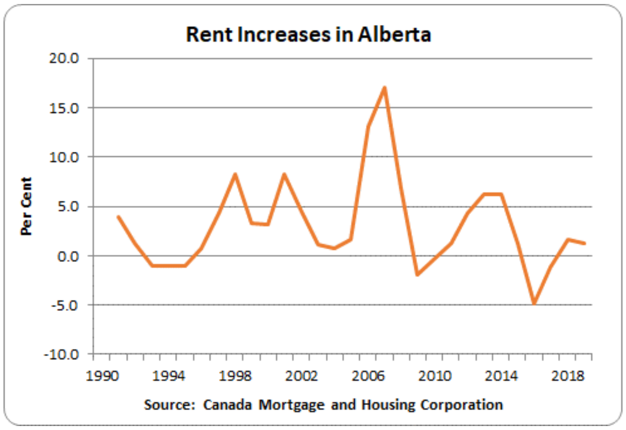






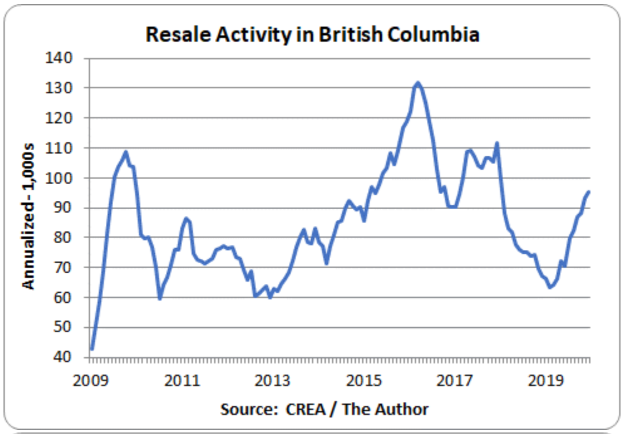
Alberta's vacancy rates have been elevated during the past five years. The 2019 rate (5.4%) exceeds the long-term average (3.8%) and the estimated balanced market threshold (4.4%). Rents have been soft, and according to CMHC's estimates of constant sample increases, rents are now lower than five years ago. The long-term average rent increase is 3.0% per year.

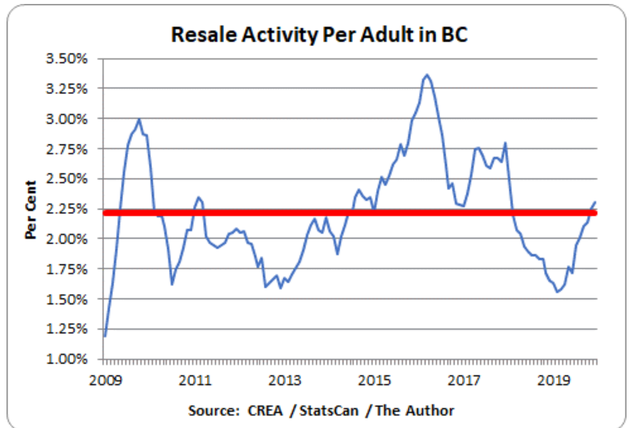


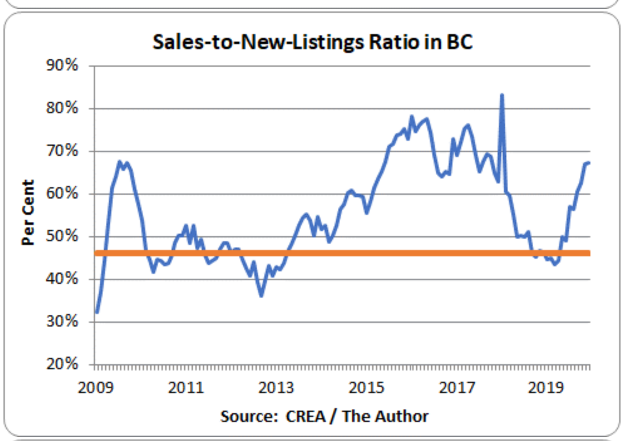


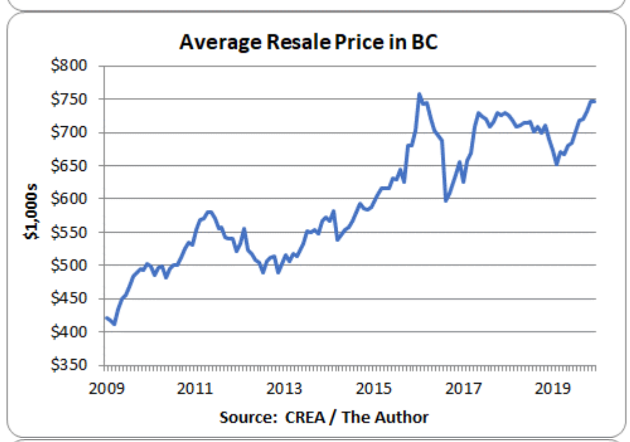
British Columbia

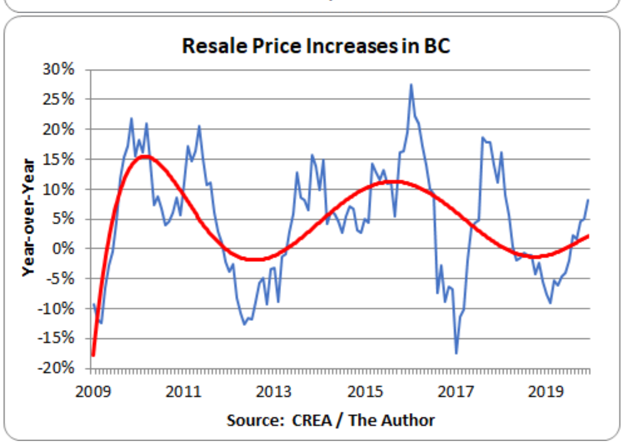
Following a very weak 2018, resale activity rebounded during 2019. By year end, the rate of sales per adult was back to the long-term average, but for the entire year, the rate was far below the long-term average (by 21%). Flows of listings into the market remain depressed, causing the SNLR to surge, to far above the balanced market threshold (46%). In consequence, earlier price reductions have largely been reversed. Housing starts are very strong, now exceeding the estimated demographic requirement (estimated at 35,000). This could cause future over-supply problems, especially for apartments.

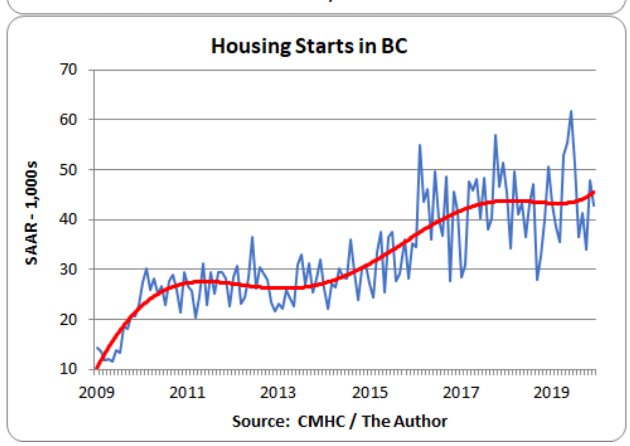












BC's vacancy rates have shown little change during the past five years. The 2019 vacancy rate (1.5%) is below the long-term average (2.3%) and the balanced market threshold (3.2%). Chronically low vacancy rates during the past two decades have caused rents to rise by more than 2% in most years (including a 4.2% rise in 2019 and an average of 5.4% during the last four years). The long-term average increase is 2.9% per year.