MORTGAGE
PROFESSIONALS
CANADA

Annual State of the Residential Mortgage Market in Canada

Year End 2018

(Published January 2019)

Prepared by
Will Dunning, Chief Economist

Table of Contents

1.0 Executive Summary	**4**
Concerns about the Mortgage Stress Tests	4
Overview of this Report	10
Mortgage Choices	10
Financial Parameters	11
Consumer Sentiment	14
Outlook for the Mortgage Market	15
Housing Market Trends	16
About Mortgage Professionals Canada	16
About the Author	17
About Bond Brand Loyalty	17
Disclaimer	17
2.0 Mortgage Choices	**18**
Dimensions of the Mortgage Market	18
Fixed-Rate Vs Variable-Rate Mortgages	19
Mortgage Amortization Periods	20
Actions that Accelerate Repayment	20
The Burden of Indebtedness	22
Mortgage Arrears	24
Types of Mortgage Professionals Consulted	25
3.0 Financial Parameters	**27**
Interest Rates	27
Mortgage Rate Discounting	28
Future Mortgage Renewals	29
Housing Equity	31
Utilization of HELOCs	34
Equity TakeFout	34
Home Renovations	36
Sources of Down Payments by First-Time Homebuyers	38
The Rising Cost of Down Payments	40
Homeownership as "Forced Saving"	42
A Falling Homeownership Rate in Canada	45
4.0 Consumer Sentiment	**47**
Attitudes to Topical Questions	47
Expectations	50
Happiness with Decision to Buy a Home	52
Reasons for Not Owning a Home	53

5.0 Outlook for the Mortgage Market	**55**
Uncertainty about a Key Economic Metric	55
A Sharp Deceleration for Mortgage Growth	59
Factors Driving Mortgage Credit Growth	59
Looking Forward	62
Forecast of Mortgage Activity	63
A Changing Risk Profile in the Mortgage Market?	64
6.0 Housing Market Trends	**66**
Trends in the Resale Market	66
Housing Starts	71
A Scan Across the Provinces' Housing Markets	72

List of Tables		
Table #	***Contents***	***Page***
Table 2-1	Distribution of Types of Home Finance, by Period of Purchase	19
Table 2-2	Percentages of Mortgages by Type, for New Purchase Mortgages and Recent Renewals	19
Table 2-3	Percentages of Mortgages by Length of Original Amortization Period, by Period of Purchase	20
Table 2-4	Actions Taken in the Past Year to Shorten Amortization Periods, by Period of Purchase	21
Table 2-5	Actions Taken in the Past Year to Shorten Amortization Periods, by Contracted Amortization Period, for Buyers Who Purchased During 2010 to 2018	21
Table 2-6	Consumers' Use of Mortgage Representatives	26
Table 3-1	Average Mortgage Interest Rates	27
Table 3-2	Changes in Mortgage Interest Rates for Mortgages Renewed During 2018	28
Table 3-3	Current Mortgage Interest Rates, by Expected Periods of Renewal, as of fall 2018	30
Table 3-4	Equity Ratios for Canadian Homeowners, as of fall 2018	32
Table 3-5	Equity Ratios for Canadian Homeowners, by Period of Purchase, as of fall 2018	33
Table 3-6	Percentages of Available HELOCs Advanced, as of fall 2018	34
Table 3-7	Percentages of Homeowners Taking Out Equity During the Past Year, by Period of Home Purchase	35
Table 3-8	Equity Positions for Homeowners Taking Out Equity During the Past Year Versus Those Who Have Not Taken Out Equity	35
Table 3-9	Percentages of Home Owners Who Have Ever Renovated their Current Homes, by Period of Purchase	36
Table 3-10	Types of Home Renovations, For Renovations During 2015 to 2018	37
Table 3-11	Reasons for Home Renovations, for Renovations During 2015 to 2018	37
Table 3-12	Average Down Payment for First-Time Homebuyers, by Period of Purchase	38
Table 3-13	First-Time Buyers Use of Down Payment Sources, by Period of Purchase	39
Table 3-14	Shares of Down Payments for First-Time Homebuyers, By Source of Funds, by Period of Purchase	40
Table 4-1	Summary of Consumer Responses to Topical Questions, by Date of Survey	48
Table 4-2	Summary of Consumer Responses to Topical Questions, As of fall 2018, by Period When Homes Were Purchased	50
Table 4-3	Summary of Consumer Responses on Expectations, by Date of Survey	52
Table 4-4	Happiness with Decision to Buy a Home, by Period of Purchase	53
Table 4-5	Reasons for Not Owning a Home, by Age Group	54

1.0 Executive 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. Out of necessity, these reviews have become significantly pre-occupied with evolving government policies that pertain to mortgages, because during the past decade those policies have increasingly constrained homebuyers and made it more difficult for them to make home purchase decisions that they think are in their own best interests. In addition, some recent changes have even begun to constrain the choices that they can make when they renew their mortgages.

Concerns about the Mortgage Stress Tests

The year-ago edition of this review (fall 2017) provided a detailed review of seven sets of policies changes related to mortgages, that have increasingly constrained consumers during the past decade. The report can be found at www.mortgageproscan.ca, under Membership. 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.

To summarize some lengthy discussions:

- The policy changes were not equal in their impacts. Out of the first six sets of changes, only one had substantial and long-lasting effects – the elimination of mortgage insurance that took effect in July 2012.
- We concluded that the seventh change – which, at the time was soon to take effect – would also have substantial and long-lasting effects: When the OSFI-mandated mortgage stress test, which took effect in January 2018, is added to the stress test for insured mortgages that took effect during the fall of 2016, there would be substantial depressing effects on housing activity.
- The fall 2017 report estimated that as a result of the stress tests, resale activity in 2018 would be in the range of 470,000, which would be 13% lower than in 2016 and 7-8% lower than in 2017 (at the time we didn't have final sales numbers for 2017 so couldn't calculate the change precisely).
- In actuality, sales fell even more than expected in 2018, to about 458,400, a drop of 11% compared to 2017 and 15% compared to 2016. (The larger than expected reduction may

be due to the interest rate increases that occurred during the year. Most of the reduction in sales during 2018 was due to the mortgage stress tests.)

- We also commented that "By the time of the next federal election in October 2019, about 200,000 Canadian families will have encountered sharp personal disappointment as the direct result of this pair of policies (they will either have significantly reduced their housing expectations in order to obtain financing, or been entirely prevented from buying a home)."
- The OSFI regulations now require that for in-transfers of existing mortgages, federally-regulated financial institutions must subject the borrowers to a stress test (even though they will have previously qualified for their existing mortgages and have demonstrated that they have been able to meet their obligations). The fall 2017 report looked at renewal scenarios and concluded that "during the period of almost two years [i.e. the period leading up to the fall 2019 federal election], as many as 200,000 Canadians who renew mortgages will fail the stress test, and this may limit their ability to negotiate the lowest possible interest rates". (This is discussed on pages 23 to 26 of the fall 2017 report.) Unfortunately, we do not have data that allows us to measure to what extent the stress test has caused mortgage borrowers to be "trapped", and in consequence forced them to renew at rates higher than could have been achieved by transferring to another lender. This is an issue worthy of further investigation.
- The impairment of housing activity that results from the mortgage stress tests will gradually weigh on the broader economy. In another report, published in July 2018[1], this author estimated that by the end of 2021, employment in Canada would be 200,000 lower than it would otherwise be.
- In various places, including pages 26 to 27 of the fall 2017 report, this author has commented that the stress tests use "the wrong interest rate". It is reasonable to test borrowers' capacities to afford higher future interest rates. It is not unreasonable to assume that in five years, the interest rate could be as much as 2 percentage points higher. But, it would also be prudent to assume that the borrowers' incomes will be higher, because we have a long history in Canada of average wages rising by about 2% per year. The borrowers will have more ability to pay at the future renewal. This is not taken into consideration. It will also be a fact that there will have been a substantial amount of principal repayment (typically 13% to 14% during the first five years) through regular required payments (and even more if the borrower makes any voluntary additional payments). The higher interest rate will be applied to a reduced principal amount, and therefore the stress tests over-estimate how much the payment would increase. If both of these factors are taken into account, a 2-percentage point increase for the mortgage interest rate, occurring five years in the future, can be simulated today using an interest rate that is 0.75 points higher than the initial contracted interest rate.

[1] That report can be found at www.mortgageproscan.ca, under Membership or here: https://mortgageproscan.ca/docs/default-source/consumer-reports/housing-and-mortgage-market-report_july2018.pdf. The discussion of employment impacts is on pages 33 to 34.

A more recent report ("Owning Versus Renting a Home in Canada", September 2018) by this author examined the costs of owning versus renting (for comparable properties) for a large number (266 cases) of locations and housing types across Canada[2]. The key conclusions are:

- In terms of total monthly costs, renting costs less than owning.
- However, the monthly cost of homeownership includes large amounts of repayment of principal, which is a form of saving. Therefore, it is reasonable to net-out principal repayment from the cost of ownership. On that basis, the costs of owning and renting are closer. In fact, on this net-cost basis, the cost of ownership is lower than the cost of renting in 202 of the 266 cases (76%).
- This is for the first year. Once the person is in the home, the monthly cost will increase more rapidly on a rental basis than for an owner-occupant, because the largest component of the owners' monthly costs (the mortgage payment) is fixed and the costs that do inflate (taxes, utilities, and condominium fees, if applicable) are a small share of the total cost.[3]
- Over the course of a lifetime, ownership is much better financially than renting.
- Consequently, owners have much more "net wealth" than renters who are in the same situations (people in the same age groups and the same income brackets). It isn't just that they have more housing wealth. They also have more savings in other forms – because the lower cost of homeownership has allowed them to save more in other forms.
- The mortgage stress tests, by making it much more difficult for Canadians to become homeowners, are going to significantly impair their long-term financial well-being.

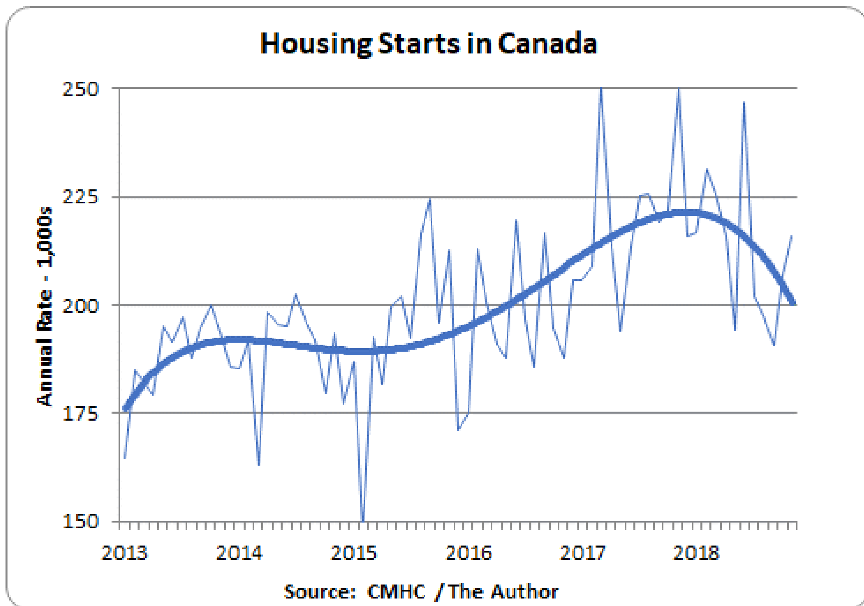
This report is not going to re-examine these issues at the same length as we did in the prior reports. Suffice it to say that this is all unfolding substantially as we expected a year ago:

- Housing markets across Canada were due to slow to some extent as a result of higher interest rates but the reductions in activity that have occurred have been much larger than should have been expected, due to the mortgage stress tests, on top of prior policy changes that have constrained home buying.

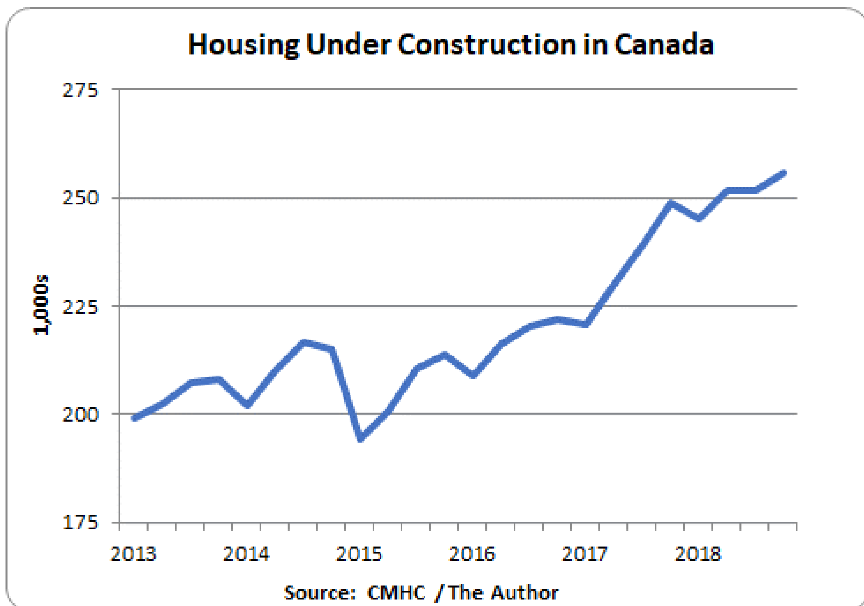
[2] The report can be found at: https://mortgageproscan.ca/docs/default-source/government-relations/owning-vs-renting-2018.pdf

[3] A short additional comment in the report extends this argument to investments in rented condominiums and other forms of housing. It has been widely reported that these investors often have higher monthly costs higher than the rents they are receiving (they have a negative cash flow), and this is often taken to mean that these investors are unsophisticated (or worse). To the contrary, these investors may be looking realistically at the total returns on their investments, including the return that results from reduction of mortgage principal, as well as the rapid improvement to the cash flow that will result from growth of the monthly rent being faster than the growth of monthly costs.

- The resale housing market remains depressed, and we do not expect an imminent recovery to normal levels.
- Housing starts are following the trend seen in the resale sector and have begun to trend downwards. That slide will continue during 2019 and into 2020.

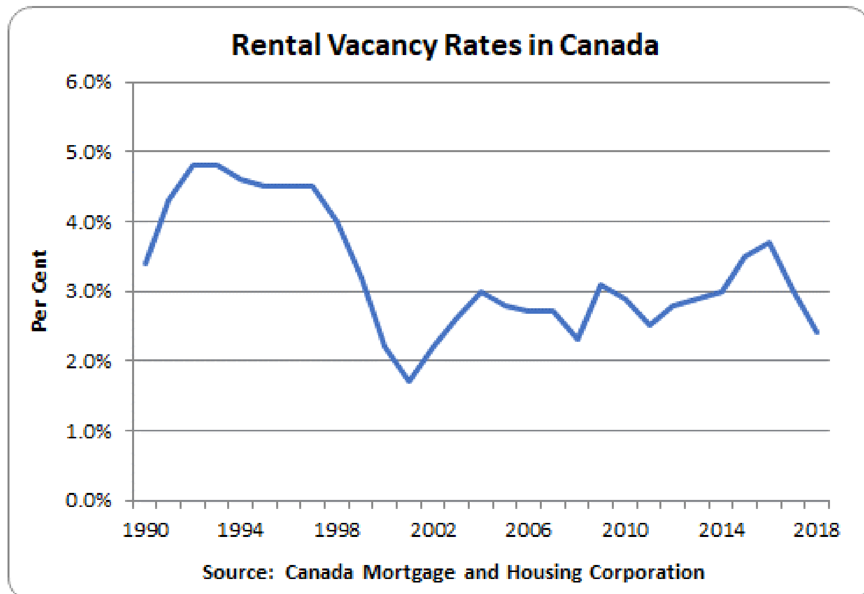


- It is too early to see any substantial; negative effects on employment. The single largest factor for the employment impacts is how much housing is under construction.
- As is shown in this chart, past housing starts are (as of the end of 2018), still resulting in a very large under construction inventory. The inventory will begin to shrink during the first half of 2019, and the drops will continue until at least mid-2021. This gradual contraction of construction activity will lead to very gradual drops of employment in construction and in the many industries that provide goods and services to the construction process.



- Constrained growth of house prices will dampen consumer confidence compared to what it would be otherwise, and this will gradually impair job creation across the economy.
- Most fundamentally, Canadians, especially young, middle-class Canadians, will, in very large and growing numbers, be denied the opportunity to build their financial futures through home ownership. The current federal government came to power largely based on its promises to support the middle class. Its policies that constrain home buying are at cross-purposes to those promises.

A further consequence of this developing slowdown of new housing construction is that the total housing inventory in Canada will expand less rapidly, meaning that fewer new households will be accommodated. At a time when the Canadian population is growing more rapidly, there is a need to expand housing construction, not reduce it. The result will be that vacancies (in the ownership and the rental sectors) will be reduced. Vacancy rates are already too low in the rental sector (2.4% as of October 2018, which is below the long-term average of 3.3%). This is resulting in rapid rates of rent increase. According to Canada Mortgage and Housing Corporation, rents rose by 3.4% in 2018, on top of 2.7% growth in 2017. Rents are rising more rapidly than incomes (which increase by about 2% per year). As a result of the mortgage stress tests, challenges for tenants will worsen during the coming three years. Improving access to affordable housing has been a major objective of the federal government. While the mortgage stress tests affect homebuying, they are a detriment to achievement of the government's objectives concerning affordable rental housing, and in fact will increase the costs of its efforts.



As arguments about the current features of the stress tests (and the adverse impacts) are gaining traction, it appears that an attempt is being made to create a new narrative about the purpose. One senior official in the federal system has been publicly saying that the stress tests are about what will happen if "Mrs. Jones loses her job" – can she and her family continue to make their payments? But, there is absolutely nothing in the stress test that considers or tests the consequences of future job loss. Those comments are a disingenuous attempt to avoid discussion of the real, substantive issues related to the stress tests. The real issues that must be addressed are:

- Using the correct interest rate (to take account of income growth and principal repayment).
- On renewal, borrowers should not be subject to stress tests, so long as they are current on their payments (to prevent "capture" by their current lenders).
- Also, related to a later discussion about private lending; federal policies have made it much more difficult for mortgage borrowers with small, alternative lenders to transfer to more-liquid, lower-cost lenders. That needs to be fixed.

The senior federal official does unintentionally make a very important point, which is that the greatest risk in the mortgage market is job loss: a reduction in the ability to pay is the single greatest predictor of mortgage defaults. Conversely, changes in interest rates historically have had virtually no impact on default rates. 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 concern ought to be about employment and income security, and ensuring that mortgage regulations allow for reasonable and optimal solutions when borrowers suffer reduced incomes.

It has been stated repeatedly in these reports (since the fall of 2012) that a significant risk factor for the housing and mortgage markets is a government policy error that causes housing activity to be so weak as to precipitate an economic recession, which in turn causes further declines in the housing market and house prices. During the past decade federal governments (under two different political parties) have been flirting with making such a policy error, through seven sets of major policy changes. As was discussed in the fall 2017 report (pages 17 and 18) the elimination of 30-year amortization periods for insured mortgages in the summer of 2012 had a significant impact that would have been long-lasting, except that a subsequent drop in mortgage interest rates provided a partial offset that prevented greater damage. The jury is still out on how much damage will be done by the stress tests. At this time, the preliminary indication is: a substantial amount of damage, and lower interest rates are much less likely to come to the rescue.

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.

Premium rates being charged for mortgage insurance have become a substantial tax on first-time home buyers (CMHC pays dividends of about $1 billion per year to the federal government, which are being paid by its mortgage insurance clients). This tax is strongly encouraging buyers to increase their down payment amounts, which is lengthening the amounts of time required to save down payments and/or causing them to rely more on other sources of funds for their down payments (including the Bank of Mom and Dad).

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 Executive Summary
- Mortgage Choices
- Financial Parameters
- Consumer Sentiment
- Outlook for the Mortgage Market
- Housing Markets Trends.

Data used in this report was obtained from various sources, including an online survey of 2,023 Canadians. More than half (54%) were homeowners with mortgages and the rest were renters (18%), homeowners without mortgages (20%), or others who rent or live with their families and are not responsible for mortgage payments or rent (22%). The survey was conducted by Bond Brand Loyalty for Mortgage Professionals Canada during the third week of November 2018.

Mortgage Choices

Mortgage Types and Amortization Periods

For homeowners with mortgages, fixed-rate mortgages remain most popular. For homes that were purchased during 2018 and have a mortgage, 68% have fixed interest rates, 30% have variable or adjustable rates, and combination mortgages have a 2% share.

For all mortgages (regardless of the date of purchase), 89% have contracted periods of no more than 25 years, and the average contracted amortization period is 20.8 years.

For homes purchased during 2015 to 2018, 84% have contracted amortization periods of 25 years or less and 16% have extended amortization periods. The average contracted amortization period is 22.2 years. The average amortization period has increased during this decade.

Canadians are highly motivated to repay their mortgages as quickly as possible. The surveys find consistently that each year about one-third of mortgage holders take actions that will shorten their amortization periods (making lump sum payments, increasing their regular payment to more than is required, or increasing the frequency of payments). Among the most recent buyers, a slightly lower share (28%) have made these additional efforts.

The rate of mortgage arrears remains very low in Canada, and has fallen further, to just 0.24% (as of September 2018). 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).

Among borrowers who took out a new mortgage during 2017 or 2018, 62% obtained the mortgage from a Canadian bank and 28% from a mortgage broker. Other categories accounted for 10% of new mortgages. The survey data suggest that the broker share of new mortgages has fallen this year. This could be a statistical anomaly, resulting from the use of a survey sample but there could have been an actual reduction in the broker share. If so, that would indicate that the mortgage market has become less competitive, which could limit consumers' ability to obtain the best possible interest rate.

Financial Parameters

Interest Rates

Looking at interest rates, the survey data indicates that:

- The average homeowner mortgage interest rate is 3.09%, a rise from the average of 2.96% recorded a year ago.
- For mortgages on homes purchased during 2018, the average rate is 3.31%.
- For mortgages renewed in 2018, the average interest rate is 3.28%.
- Looking further, for borrowers who renewed a mortgage during 2018, two-thirds (68%) saw their interest rate rise and one-quarter (24%) saw reductions. Among all borrowers who renewed in 2017, on average their interest rates rose by 0.25 percentage points.
- Mortgage rate discounting remains widespread in Canada. During 2018, up to the date of our survey, the average actual rate for 5-year fixed-rate mortgages (3.40%) was 1.86 percentage points lower than "posted" rates (which averaged 5.26%). The average discount has been reduced from the 2.00 points seen in 2017.

Future Mortgage Renewals

Looking at the circumstances of borrowers who expect to renew their mortgages in the near term, a vast majority will experience little change or mortgage cost increases that they can afford. Our survey data suggests that during the coming year a very small minority of mortgage borrowers (perhaps 1% of all six million mortgage holders, or in the area 50,000) will face substantial, challenging cost increases during the coming year. Solutions will need to be tailored to individual circumstances.

Home Equity

Mortgage Professionals Canada's study posed several questions that yielded estimates of homeowner equity:

- On average, home equity in Canada is equivalent to 74% of the value of the homes.
- Among homeowners who have mortgages (but not HELOCs), on average, their home equity represents 56% of the value of the homes.
- For owners with both mortgages and HELOCs, the equity ratio is 58%.
- For owners without mortgages but with HELOCs, the equity share is 80%.
- 92% of homeowners in Canada have 25% or more equity in their homes.
- For the most recent buyers (2015 to 2018) the average equity ratio is 50%.

Equity Takeout

About 10% of homeowners (about 965,000 out of 9.8 million) took equity out of their home in the past year. The average amount is estimated at $74,000. These results imply that the total amount of equity takeout during the past year has been $72 billion, of which $38 billion was via mortgages and $34 billion was via HELOCs.

The most common use of funds from equity takeout is for investments ($23.8 billion), followed by home renovation or home repair ($17.0 billion), by debt consolidation and repayment ($16.4 billion), purchases ($8.6 billion), and "other" purposes ($6.2 billion). Equity takeout is most common among homeowners who purchased their home during 2000 to 2004.

Home Renovations

More than one-half (55%) of Canada's home owners have ever renovated their current homes. This includes 27% who have renovated during 2015 to 2018. On average, these recent renovators spent $41,000.

Sources of Down Payments by First-time Homebuyers

In the past, these surveys have consistently shown that down payments by first-time buyers have averaged close to 20% of the purchase prices. First-time buyers obtain their down payments from multiple sources. The largest source of funds for down payments is personal savings (52% of the total amounts for all first-time buyers and 45% for buyers who purchased their first home during 2015 to 2018). Funds from parents and other family members (in the form of loans and gifts) have been a small part of down payments, averaging 16% for all first-time buyers. This share has increased during this decade, rising to 20% for recent buyers (2015 to 2018). Loans from financial institutions have been an additional source of down payments, at 19%. Other sources include withdrawals from RRSPs (including via the Home Buyers' Plan), with a share of 10 for all periods of buying and for the most recent buyers. The share from RRSPs rose after the Home Buyers' Plan was created in 1992, but has fallen during the past decade.

The Rising Cost of Down Payments

For new homebuyers, monthly mortgage costs have been relatively stable compared to incomes, as interest rates have fallen. But, the rapid rise in house prices means that required down payments have increased relative to incomes. As a simple illustration of this, a 20% down payment on an average priced house is now equal to 98 weeks at the average wage in Canada. This is almost double the figure for the 1990s.

This is not to say that it takes 98 weeks to save a down payment – the actual period depends on individual circumstances, including what percentage of income can be saved. Actual periods for saving down payments will generally be considerably longer, which causes most first-time buyers to resort to multiple sources of funds in addition to their savings.

Homeownership as "Forced Saving"

Mortgage payments are a blend of interest payment and repayment of principal. As interest rates have fallen, the share of the payment that goes to principal has increased sharply. At today's rates, and assuming a 25-year amortization period, about one-third of the first payment is principal repayment. A decade ago the share would have been one-quarter.

Among the implications of this are:

- Rapid repayment of principal means that, once the mortgage loan is made, risk diminishes rapidly.
- It may also help to explain why consumers consider mortgages "good debt".
- Repayment of mortgage principal can be seen as "forced saving". Under current conditions, with one-third or more of the payments going to principal, this represents quite high percentages of the borrowers' incomes as a "saving rate".
- The "net cost" of homeownership (which should include interest costs, but not the principal repayment) is now quite low in historic terms (in relation to incomes, and indeed relative to the cost of renting equivalent accommodations). This goes a long way to explaining the continued strength of housing activity in Canada, despite rapid growth of house prices.

Another important implication of this analysis is that in analyzing housing affordability, it is important to use the interest rates that can actually be found in the market. Most affordability analyses use the posted rate, which gives a distorted impression of the current level of affordability, and of how current affordability compares to the past.

A Falling Homeownership Rate

As of 2016, the homeownership rate in Canada was 67.8%, a substantial drop from the 69.0% rate seen in 2011. Ownership rates fell sharply for the youngest (first-time buyer) age groups – by more than 4 percentage points for the three youngest ages.

This disappointing change can be attributed to:

- The increased difficulty of saving down payments.
- The elevated rate of "forced saving".
- Prior to the 2016 Census there were five sets of mortgage insurance policy changes by the federal government that have made it more difficult to buy.

All of these factors will continue to weigh on buyers. In addition, the mortgage stress tests will suppress homebuying.

All things considered, it appears highly likely that the homeownership rate will fall further during the coming years.

Consumer Sentiment

In this section, consumers were asked to indicate their level of agreement or disagreement with six different statements. A score of 10 would indicate complete agreement while a rating of 1 indicates complete disagreement.

Consumers generally agree (average score of 7.15) 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 personal circumstances – ability to weather a potential downturn in home prices (average rating of 7.09) and low levels of "regret" about their own mortgage choices (a low average of 3.67) – paint a different picture. As individuals, Canadians have behaved cautiously. It is not immediately obvious how this contradiction can be resolved. Perhaps the responses to the first question reflect what they are seeing in the media and hearing in comments from opinion leaders, more so than reflecting actual behavior.

There is a strong belief that "real estate in Canada is a good long-term investment" (7.15) and agreement that mortgages are "good debt" (6.94).

This section of the report includes a long digression[4] on "regret" about mortgage choices, which draws two conclusions:

- Firstly, people's regret diminishes over time as they get used to the debt (and because, through repayment, the debt becomes less risky to themselves).
- Secondly, on top of that first effect, the overall level of regret seems to have fallen, even though the amounts of debt have expanded very rapidly. This may have occurred because rapid price growth has rapidly raised equity ratios, which makes the borrowers more comfortable.

[4] The author found this material fascinating, and therefore the section is extensive.

By a very large margin, Canadian homeowners are happy with their decisions to buy their homes (90%). To the extent that some of them regret the decision to buy, the regrets are about the particular property purchased (7%) rather than about homeownership in general (4%). This pattern holds for both recent buyers and those who purchased earlier.

Outlook for the Mortgage Market

Forecasting growth of mortgage credit in 2019 is clouded by a potential data quality issue:

- In a lengthy digression the author develops an opinion that job creation in Canada is currently being under-estimated by a significant amount, which creates uncertainty about the strength of potential housing demand.
- A further consideration is that economic forecasting models often perform badly at turning points: we are currently moving through a turning pointy and actual growth in the mortgage market is much slower than might be expected, based on previous economic relationships.

Demand for mortgages in Canada is driven by several factors. The most important is the volume of new housing that is completed and requires mortgage financing. The volume of completions reflects housing starts that have occurred in the past. The data on housing starts tells us that housing completions in 2019 will be slightly lower than in 2018, but will still be at a level that results in a significant requirement for new financing.

Another factor in the past has been that low interest rates mean that consumers pay less for interest and, therefore, are able to pay off principal more rapidly. Recent rises in interest rates are resulting in a slight reduction in the ability to make additional repayment efforts, and this will tend to fractionally raise the growth rate for outstanding mortgage principals.

Resale market activity and price growth are slowing, which will tend to reduce the growth rate for mortgages. However, resale activity is less powerful than housing completions as a driver of credit growth. This is a slight dampening factor.

A further factor, which will persist for the long term, is that Canadians move away from slow growth communities to high-growth areas that have higher house prices and larger associated mortgages. This factor drives as much as a quarter of mortgage growth in Canada.

During the 12 years since we started producing these reports, mortgage credit growth in Canada has averaged 7.3% per year. The growth rate has slowed, and is estimated at 3.5% (as of September). For 2019, with a continued high volume of housing completions, little change is expected for the growth rate.

By the end of 2018 the estimate of total outstanding residential mortgage credit might be $1.55 trillion, and at the end of 2019 the total may be $1.60 trillion.

The mortgage stress tests appear to be reducing risks in the federally-regulated financial sector, but to some unknown degree the risks are being shifted elsewhere. It is possible that overall risks to the financial sector and the broader economy are being increased because:

- Firstly, the borrowers are paying higher interest rates than they would otherwise.
- Secondly, the loans rely on sources of capital that could prove to be fickle when it comes time for renewal.

Housing Market Trends

Housing market indicators weakened during the year, under the weight of the mortgage stress tests, provincial policies in British Columbia and Ontario that have targeted non-resident purchases, and the added pressure of higher mortgage interest rates. As was commented earlier, resale activity (in terms of numbers of units sold) fell by 11% compared to 2017, and 15% from the all-time record that was set in 2016. Sales rates (after seasonal-adjustment) fell during the last four months of 2018.

Impacts on sales took different forms across the country. In most locations, there were outright reductions; in others, the stress tests have interrupted growth trends.

As usually happens, housing starts have followed slightly behind the resale market, and are now trending downwards.

Flows of new listings into the resale market have slowed, because potential movers (move-up, move-down, and move-away) are learning that they have less ability to make their desired purchases, due to the stress tests and higher interest rates, and therefore, there is no point in selling their existing home. The number of new listings fell by 4.7% in 2018 (a smaller drop than the 11% reduction for sales). In consequence, sales-to-new-listings ratios have fallen in most communities, reducing upward pressures on prices. In some locations, this is resulting in price erosion, in others the effect is a slowdown in price growth.

In a modern economy, one of the most dangerous risks is that if house prices fall, the impairment of consumer confidence will weaken the broader economy. The mortgage stress tests are raising the risks to house prices and the economy of Canada.

About Mortgage Professionals Canada

Mortgage Professionals Canada is the national mortgage broker channel association representing the largest and most respected network of mortgage professionals in the country. Its membership is drawn from every province and from all industry sectors. Through its extensive membership

database, Mortgage Professionals Canada provides consumers with access to a cross-country network of the industry's most respected and ethical professionals.

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 wholly owned subsidiary of Maritz Inc., the largest performance improvement company in the world, headquartered in St. Louis, Missouri. For more than 20 years, Maritz Inc. has been one of the largest providers of customer satisfaction research in North America, and a major supplier of research, helping clients understand Choice, Experience, and Loyalty to their brand. In Canada, Bond Brand Loyalty has been developing marketing research solutions for Canadian clients under the Thompson Lightstone and Maritz brands since 1977, and has grown to become one of Canada's largest full-service marketing research consultancies.

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.

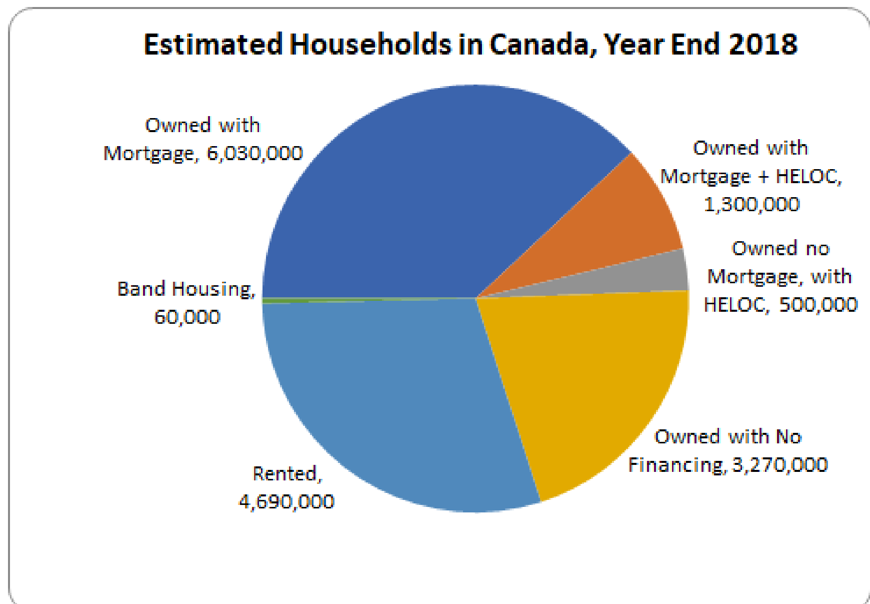
The opinions and conclusions in this report are those of the author and do not necessarily reflect those of Mortgage Professionals Canada or Bond Brand Loyalty.

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 14.56 million households in Canada[5], including:



- 9.80 million homeowners, of whom 6.03 million have mortgages. Of these, 1.60 million also have Home Equity Lines of Credit (HELOCs) and 4.43 million have a mortgage without a HELOC.
- 3.77 million homeowners have no mortgages. Of these, 500,000 have HELOCs and 3.27 million have neither a mortgage nor HELOC.
- There are about 4.69 million tenants.
- 60,000 households living in band housing.

Table 2-1 looks at homeowners by the periods when their current dwelling was purchased. It shows that for those who purchased before 1990, a minority (17%) have any form of financing on their homes (therefore, 83% have no financing), and among those that do have financing, more than one-half have only a HELOC. Naturally, the shares of home owners that have financing increases for later purchase periods. For the most recent purchases (2015 to 2018), just 11% of the owners have no financing on their homes.

[5] These estimates households are based on data from the 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.

Table 2-1 *Distribution of Types of Home Finance, by Period of Purchase*							
Amortization Period	*Before 1990*	*1990-1999*	*2000-2004*	*2005-2009*	*2010-2014*	*2015-2018*	*All Periods*
Mortgage only	4%	14%	31%	46%	60%	67%	43%
Mortgage and HELOC	4%	9%	18%	19%	19%	18%	16%
HELOC only	10%	13%	6%	5%	2%	3%	5%
None	83%	64%	45%	30%	19%	11%	36%
Total	100%	100%	100%	100%	100%	100%	100%
Source: Mortgage Professionals Canada survey, fall 2018; Analysis by the author.							

Fixed-Rate Vs Variable-Rate Mortgages

As is shown in the next table, the study found that 68% of mortgage holders (4.12 million out of 6.03 million) have fixed-rate mortgages, 27% (about 1.61 million) have variable-rate or adjustable-rate mortgages, and 5% (about 300,000) have "combination" mortgages, in which part of the payment is based on a fixed rate and part is based on a variable rate.

As is shown in the first column of the table, among mortgages for homes that were purchased during 2018, fixed-rate mortgages were chosen by 68%. For mortgages that have been renewed during 2018, the fixed-rate share is similar, at 67%. During 2018, the spread between fixed-rate mortgages and variable-rate mortgages (both on 5-year terms) averaged about 0.55 of a percentage point. This spread can be seen as the cost of "insurance" that the monthly mortgage cost will be unchanged for five years. Based on a typical mortgage for a recent buyer (about $300,000) the cost of this "insurance" averaged about $85 per month during 2018. At present (early January), a typical "special offer" interest rate is 3.75% for 5-year fixed-rate mortgages versus 3.05% for variable rates, for a spread of 0.70 points, and the cost of the insurance has increased to $110 per month. Most borrowers choose to accept the additional cost that is associated with fixed rate mortgages. Others are taking the chance that over the 5-year term of the mortgage interest rate increases will be minor and they will be better off with the variable rate.

Table 2-2 *Percentages of Mortgages by Type,* *for New Purchase Mortgages and Recent Renewals*				
Mortgage Type	*Purchase During 2018*	*Renewal or Refinance During 2018*	*Did Not Purchase or Renew/ Refinance During 2018*	*All Mortgages*
Fixed Rate	68%	67%	68%	68%
Variable or Adjustable Rate	30%	25%	27%	27%
Combination	2%	8%	5%	5%
All Types	100%	100%	100%	100%
Source: Mortgage Professionals Canada survey, fall 2018; Analysis by the author.				

Mortgage Amortization Periods

A large majority of residential mortgages in Canada have contracted amortization periods of 25 years or less. The last column of the next table indicates that 89% of 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 2018), the proportion with amortization periods of 25 years has been reduced, but at 84% is still high. The share with extended amortization periods has increased, to 16%. The data indicates that the average contracted amortization periods this decade are longer than for mortgages that were initiated during prior decades.

Table 2-3
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*	*2015-2018*	*All Purchase Periods*
Up to 24 Years	47%	43%	49%	47%	35%	29%	40%
25 Years	50%	52%	49%	44%	46%	55%	49%
26-30 years	2%	5%	2%	5%	16%	14%	9%
More than 30 Years	1%	0%	0%	4%	2%	2%	2%
Total	100%	100%	100%	100%	100%	100%	100%
Average Amortization Period	19.7	20.7	18.5	20.2	21.6	22.2	20.8

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

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. One-third (34%) of mortgage holders (about 2.0 million out of 6.03 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 2018) are the least likely to have taken one or more of these actions, but at a share of 28% recent buyers are making considerable efforts to accelerate repayment. Moreover, as is shown, recent buyers make the largest efforts in dollar terms.

Table 2-4 *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	23%	11%	9%	37%	63%
2000-2004	21%	11%	8%	32%	68%
2005-2009	20%	17%	6%	38%	62%
2010-2014	18%	19%	7%	38%	62%
2015-2018	13%	13%	8%	28%	72%
All Purchase Periods	16%	15%	8%	34%	66%
Number Taking Action (1)	975,000	925,000	475,000	2,025,000	3,925,000
Source: Mortgage Professionals Canada survey, fall 2018; Analysis by the author. Note : (1) total does not add to 6,030,000 due to rounding.					

A deeper dive into this data looked at additional efforts made by mortgage holders buyers who purchased their homes during this decade, 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 year made these efforts at the same rate as others.

Table 2-5 *Actions Taken in the Past Year to Shorten Amortization Periods, by Contracted Amortization Period, for Buyers Who Purchased During 2010 to 2018*	
Originally Contracted Amortization Period (Years)	*Took One or More of the Actions*
1-19	51%
20-24	35%
25	28%
More than 25	33%
All	33%
Source: Mortgage Professionals Canada survey, fall 2018; 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 975,000 mortgage holders voluntarily increased their regular payments during the past year. The average amount of increase was about $450 per month, for an estimated total of about $5.25 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

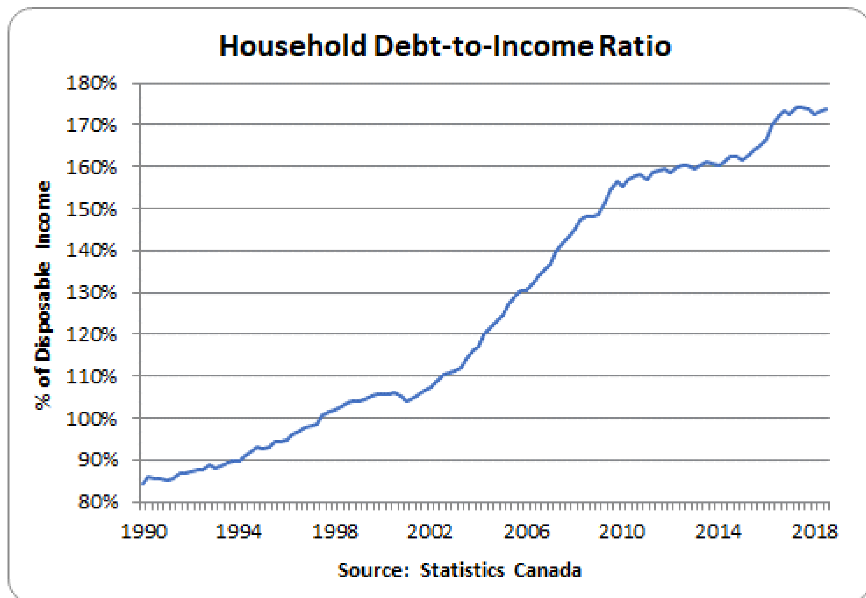
contribute to accelerated repayment of mortgages. Among the most recent buyers (2015 to 2018), the average voluntary increase in payments was $530 per month, exceeding the average amount of $450.

- About 925,000 made lump sum payments during the past year. The average amount was about $22,100, for combined repayment of $20 billion. The largest lump sum payments were made by home owners who purchased their home most recently (an average of $28,800).
- As shown above, 8% of mortgage holders (about 475,000) increased the frequency of their payments.

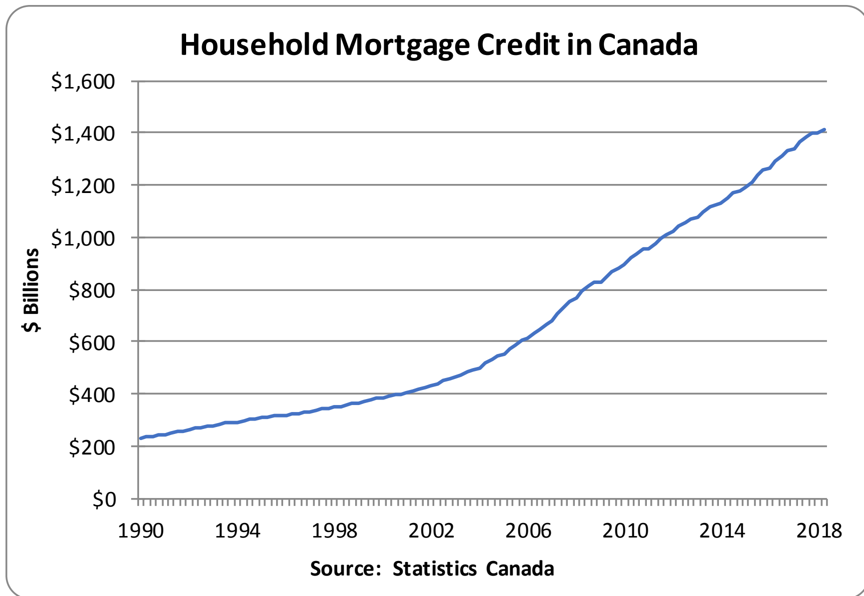
In addition, the survey has investigated lump-sum payments made at the time that mortgages are fully paid out. The survey data for this year indicates that about 200,000 mortgages are repaid each year and that such lump sum payments are made about 60% of the time, at an average amount of about $50,000. Combining these factors, the total amount of these payments would be about $6 billion per year.

The Burden of Indebtedness

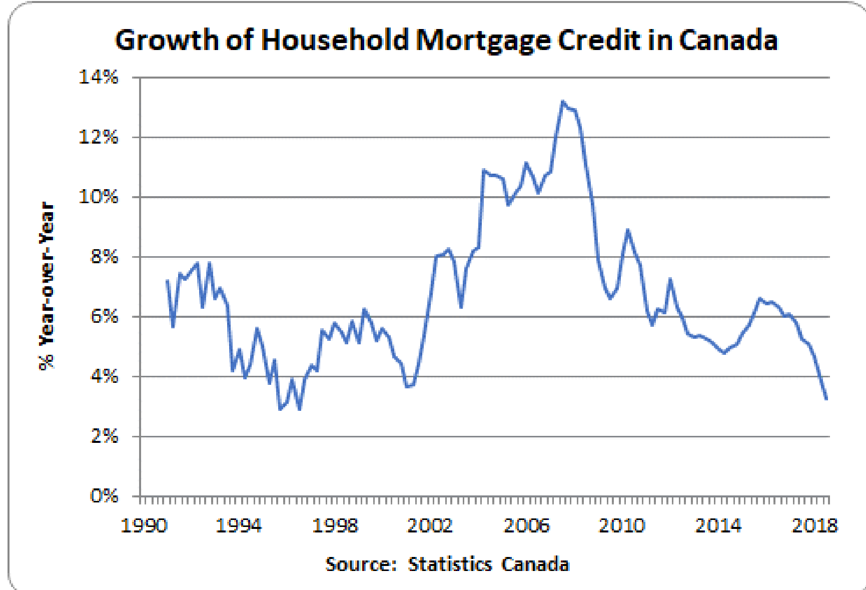
Canadians have become much more indebted. The ratio of household debt to disposable income rose sharply during 2001 to 2009. The ratio increased gradually during the first half of this decade, rose sharply during 2016, and has subsequently been flat. From the first quarter of 1990 up to the third quarter of 2018, household debt expanded from $349 billion to $2.19 trillion, an annualized growth rate of 6.7%.



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 $1.43 trillion as of the third quarter of 2018 (an average rate of 6.7% per year).[6]



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. Subsequent growth rates are 6.4% for the five years to 2013-Q3 and 5.2% for the five years to 2018-Q3. For the past year, the growth rate was 3.2%. For the same period, the Bank of Canada data shows a slightly faster growth rate, at 3.5%.



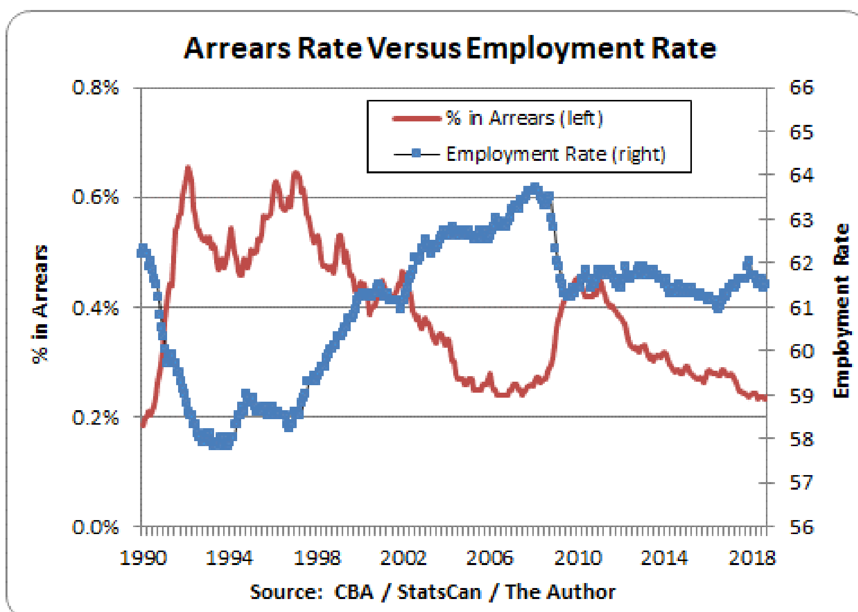
[6] This data is estimated by Statistics Canada (table 38-10-0234-01) and differs from the data on total residential mortgage credit that is published by the Bank of Canada (BoC): as of the third quarter of 2018, Statistics Canada shows a total of $1.428 trillion while the BoC data shows a total of $1.532 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 the fall of this year, we estimate outstanding residential mortgage credit for owner-occupied principal residences at $1.479 trillion (including HELOCs).

Further commentary on the growth of mortgage credit, including the factors that drive growth, is contained in section 5 of this report.

In addition, while mortgage debt has risen relative to income, the burden of mortgage payments relative to income has remained manageable. This is discussed in Section 4, in a subsection titled Homeownership as "Forced Saving".

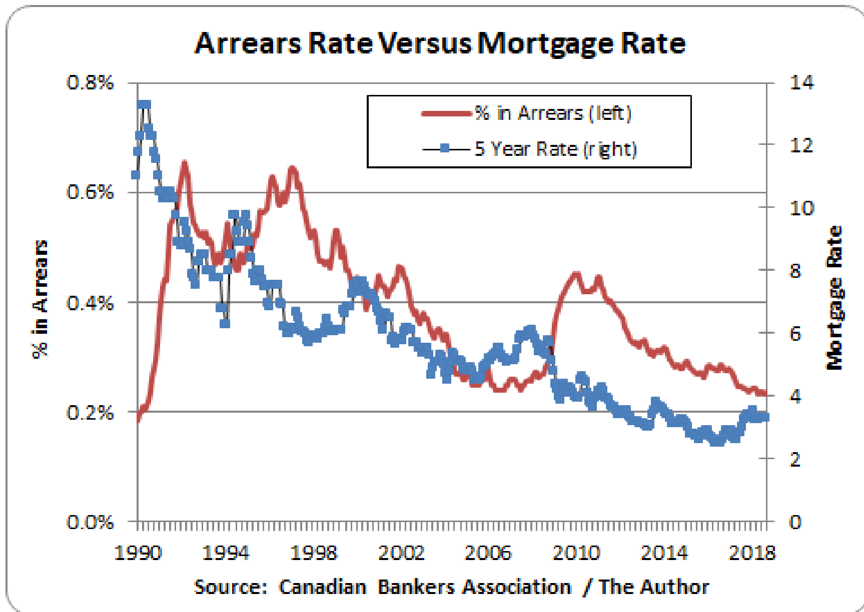
Mortgage Arrears

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 2018, the arrears rate of 0.24% (1-in-424 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 to the right shows the importance of changes in the employment situation. It contrasts arrears rates with the Canadian "employment rate" (the percentage of adults who are employed). 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 strengthening of the employment rate that began about mid-2016 was followed by a drop in the arrears rate.

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. However, 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. Most recently, a rise in interest rates that began in July 2017 has not been followed by a rise in the arrears rate (in fact, the arrears rate has fallen fractionally, which is likely due to the improved employment situation).



Statistical analysis[7] (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, 59% were obtained from a bank (in the last column of data in the next table). Mortgage brokers had a 28% share, credit unions were the source for 7% of these mortgages, followed by 3% from life insurance or trust companies. Just 2% reported obtaining their mortgage via an "other" source. For recent homebuyers (the first column of data), 62% of mortgages were obtained from banks, 28% from mortgage brokers, 5% from credit unions, just 3% from life insurance and trust companies, and 2% 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 (23%), 8% were from credit unions. Life insurance and trust companies, and "other" were negligible sources for renewals (combining for just 3%).

[7] For the technically-minded: regression analysis that contrasts the arrears rate simultaneously with lagged values of the employment rate and the mortgage interest rate results in a t-statistic of 22.2 for the employment rate (very strongly significant) and 6.5 for the interest rate (statistically significant, but less so). Based on the statistical analysis, a one point rise in the employment rate tends to reduce the arrears rate by 0.05 points, which is 5 times larger compared to the effect of a one point rise in the mortgage interest rate (a rise of 0.01 point).

Table 2-6 *Consumers' Use of Mortgage Representatives*				
Type of Mortgage Representative	*Purchase During 2017 or 2018*	*Renew or Refinance During 2017 or 2018*	*Not Active During 2017 or 2018*	*All Mortgage Holders*
Mortgage Representative from a Canadian Bank	62%	65%	57%	59%
Mortgage Broker	28%	23%	29%	28%
Mortgage Representative from a Credit Union	5%	8%	7%	7%
Mortgage Representative from a Life Insurance or Trust Company	3%	2%	4%	3%
Other	2%	1%	3%	2%
Total	100%	100%	100%	100%
Source: Mortgage Professionals Canada survey, fall 2018; Analysis by the author.				

Measured as a share of total mortgage principals, for purchases during 2017 and 2018, banks account for 67%, mortgage brokers for 25%, and the other categories of mortgage professionals account for 7%.

The survey data this year indicates that brokers are achieving a lower share of mortgages for new purchases: compared to the current share of 28% for new purchases, prior surveys show broker shares at 39% as of 2017 (for the purchases made during 2016 or 2017), 43% (2016 survey, for purchases during 2016), and 42% in the 2015 survey. It is possible that the estimated reductions for 2017 and 2018 are statistical anomalies, which sometimes occur in sample surveys. However, it is also possible that there has been an actual drop in broker share. The lending environment has become more challenging for brokers, especially since changes to mortgage insurance regulations are making it much more difficult for small lenders to raise funds via mortgage backed securities. It also appears that some of the large banks are becoming less reliant on the broker channel.

The environment is becoming more challenging for brokers. It is also becoming more challenging for consumers: the reduced broker share (if it has indeed occurred) signals that there is less competition among mortgage lenders, which is disadvantageous to consumers: reduced competition makes it more difficult to obtain the lowest possible interest rates.

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 3.09% as of the fall of 2018, which is an increase from the 2.96% figure seen in the fall of 2017.

Very few residential mortgages in Canada have high interest rates. In this survey, only 3% 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 2018 up to the date of the survey, renewals during this year, and mortgages for which there was neither an initiation nor renewal.

This survey data shows that for mortgages that have been initiated or renewed this year, interest rates are generally higher than the interest rates for all mortgages. The exception to this is for mortgages with variable or adjustable rates: for these mortgages, rates for recent purchases and renewals are lower than for older mortgages. This has occurred because increased competition in the mortgage market has caused lenders to increase the amounts by which their variable/adjustable rates are discounted (in comparison to their prime rates). Based on this author's "opinion-estimates" of typical advertised offers, during 2018 the average variable rate was 0.77 points below prime rates, versus an average of 0.37 points for 2013 to 2017. The discount factor increased during the year: during June to December, it averaged 0.93% versus 0.56% for the first five months of the year.

As of the early January 2019, the author's opinion-estimate is that a typical advertised rate for a variable/adjustable rate mortgage is 3.05% versus 3.75% for a five-year fixed rate mortgage.

Table 3-1
Average Mortgage Interest Rates

Activity During 2018	*Mortgage Type*			*All Types*
	Fixed Rate	*Variable or Adjustable Rate*	*Combination*	
Purchases During 2018	3.50%	2.93%	NA (1)	3.31%
Renewals During 2018	3.31%	3.26%	3.14%	3.28%
Not Active During 2018	2.88%	3.45%	3.14%	3.04%
All Mortgages	2.99%	3.37%	3.14%	3.09%

Source: Mortgage Professionals Canada survey, fall 2018; Analysis by the author.
Note: (1) insufficient data to produce an estimate.

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 have renewed a mortgage during 2018, one-quarter (24%) had a reduction in their interest rate. Two-thirds (68%) had an increase and 7% had no change. On average, for all mortgages renewed during this year, the interest rate increased by 0.25 percentage points.

Table 3-2
Changes in Mortgage Interest Rates for Mortgages Renewed During 2018

Change in Interest Rate	*Fixed Rate*	*Variable or Adjustable Rate*	*Total*
% with Rate Decreased	17%	53%	24%
% with Rate Unchanged	9%	0%	7%
% with Rate Increased	75%	47%	68%
Total	100%	100%	100%
Average Change in Interest Rate (percentage points)	+ 0.35	- 0.04	+ 0.25

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

Combining several data elements from the survey: for those consumers who renewed mortgages during 2018, annual interest costs rose by about $650 per year per borrower, or just over $50 per month. Actual changes in monthly mortgage payments will vary, depending on choices made by consumers. In particular, for mortgage borrowers who had been paying more than required, an increase in the interest rate upon renewal might cause then to adjust the amounts of over-payment. Others might decide to increase their actual payments by more than the required amounts in order to accelerate repayment.

Mortgage Rate Discounting

As was reported earlier, for new homes purchased during 2018, the average mortgage interest rate was 3.31%. Since the start of 2018 (up to the date of the survey), "posted rates" for 5-year terms have averaged 5.26[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

[8] Source: data on posted rates are obtained from the Bank of Canada "conventional mortgage" rates (estimated as of each Wednesday), up to November 21.

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 since the beginning of 2018
- With fixed rates, rather than variable rates
- With five-year terms

For this group of mortgage borrowers:

- The average mortgage interest rate is 3.40%. In contrast, the average posted five-year mortgage rate over the same period was 5.26%. Based on this data it appears that Canadians negotiated mortgage rate discounts averaging 1.86 percentage points (for five-year terms). A year ago, the average was 2.00%: the average discount has been reduced this year.
- Within this subset of the database, none of the responses had an actual interest rate equal to or higher than the average posted rate. In fact, the highest interest rate reported was 4.0%.

Apart from this year, discounts have increased over time. The first time we made the calculation of discounts (fall of 2005), the average was 1.33 percentage points.

Future Mortgage Renewals

Each year, about one-fifth of residential mortgages are renewed. 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 mortgages that are expected to be renewed in the six months after the survey (that is, renewals will occur during December 2018 to May 2019), the current mortgage interest rate averages 3.39%. At the time of writing in early January, typical "special offer" rates from major lenders are in the area of 3.75% for 5-year fixed rate mortgages and 3.05% for 5-year variable rate mortgages. These are advertised rates: some borrowers may be able to negotiate lower rates. Therefore, on average, interest rates are unlikely to change by very much. However, looking at the distribution of mortgages rates, about two-fifths (41%) have a current interest rate below 3%, and therefore many of these renewals will result in increased interest costs. On the other hand, another 41% have current interest rates in the range of 3% to 3.74%, and most of these renewals should result in only small changes to interest rates. A minority (18%) of these near-future renewals have interest rates of 3.75% and higher and some of these may negotiate lower rates when they renew.

For the second six-month period (June to December 2019), mortgages that are due for renewal have a current average interest rate of 3.14%. A larger share (54%) have interest rates below 3% and are therefore susceptible to increases.

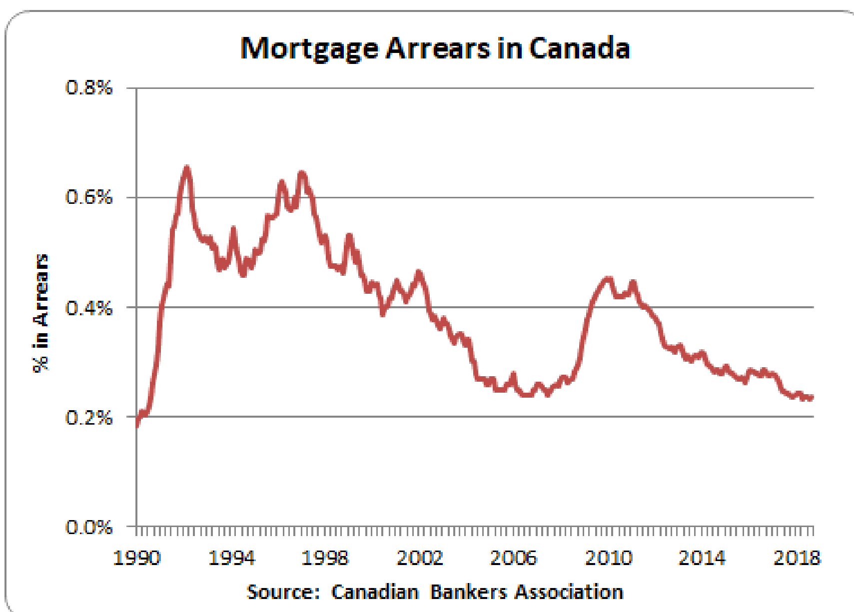
Table 3-3 *Current Mortgages Interest Rates, by Expected Period of Renewal, as of fall 2018*						
Current Interest Rate	*In the next 6 months*	*In next 7 months to 1 year*	*In the next 1 to 2 years*	*In the next 2 to 3 years*	*In the next 3 to 5 years*	*I don't expect to renew this mortgage*
Below 2%	5%	3%	2%	4%	0%	3%
2-2.24%	5%	9%	6%	2%	2%	3%
2.25-2.49%	5%	8%	8%	24%	11%	9%
2.5-2.74%	11%	10%	15%	22%	15%	20%
2.75-2.99%	15%	24%	17%	12%	12%	12%
3-3.24%	16%	17%	19%	11%	24%	20%
3.25-3.49%	16%	6%	16%	8%	16%	8%
3.5-3.74%	9%	8%	6%	6%	9%	3%
3.75-3.99%	2%	3%	6%	4%	7%	0%
4% and over	16%	12%	5%	7%	4%	21%
Total	100%	100%	100%	100%	100%	100%
Average Interest Rate	3.39%	3.14%	3.01%	2.92%	3.10%	3.17%
Source: Mortgage Professionals Canada survey, fall 2018; Analysis by the author.						

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 during the coming 12 months):

- 39% indicate that they are currently paying more than required. Therefore, they have some capacity to reduce their future payments, if required. Among those with the lowest current interest rates (below 2.5%), 40% are currently paying more than required.
- Two-thirds 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 11%.
- 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 (and are therefore may see substantial rises in their mortgage costs). Combining various data from this survey, this group represents about 5% of mortgage holders who will renew during the current year which is only about 1% of all mortgage holders (about 50,000 borrowers).

Higher interest rates will cause stress for large numbers of mortgage renewers during the coming year (and beyond). 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.



Gradually unfolding data on mortgage arrears suggests that – so far – mortgage borrowers have been able to adjust to increased payments. Despite the interest rate increases that began more than a year ago[9], the arrears rate remains exceptionally low, at just 0.24%. 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.

[9] The most recent data on arrears is for September 2018. Mortgage interest rates began to rise in July 2017. The author's opinion-estimate of typical "special offer" rates for 5-year fixed rate mortgages has increased from 2.6% as of July 2017 to 3.3% as of September 2018 and a current 3.75%.

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 74% (and the average loan-to-value ratio is just 26%). In other words, for every $1,000 in house value in Canada, there is about $260 of debt (mortgage and/or HELOC) and $740 of homeowner equity. The data for the fall of 2018 indicates that out of 9.8 million homeowners in Canada, 8.8 million have 25% or more equity. On the other hand, fewer than 300,000 (3% of homeowners) have less than 10% equity.

Two main findings have been consistent across these annual surveys:

- For all homeowners, more than 85% 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 92%.
- Even among the 6.03 million homeowners who have mortgages (with or without a HELOC), more than 75% 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 $5.76 trillion. Associated finance (mortgages and HELOCs) on these dwellings is estimated to total $1.48 trillion. In consequence, as of the fall of 2018, total homeowner equity in Canada is estimated at $4.28 trillion[10].

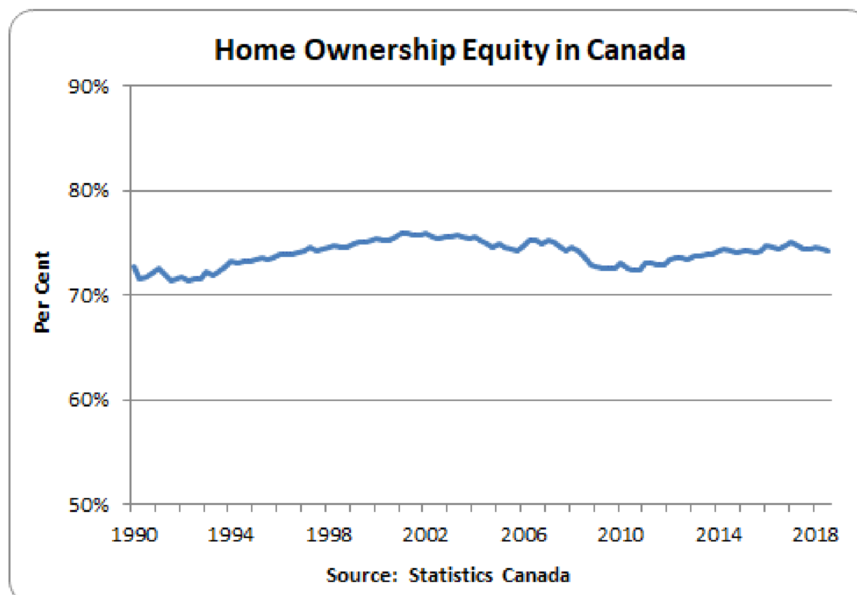
Table 3-4
Equity Ratios for Canadian Homeowners, as of fall 2018

Equity as Percentage of Home Value	*HELOC only*	*Mortgage only*	*Mortgage and HELOC*	*Neither Mortgage Nor HELOC*	*All Home-owners*
Negative Equity	0%	1%	4%	0%	1%
0-4.99%	0%	2%	1%	0%	1%
5-9.99%	0%	2%	0%	0%	1%
10-14.99%	0%	4%	1%	0%	1%
15-24.99%	0%	10%	8%	0%	5%
25-49.99%	7%	30%	31%	0%	15%
50-74.99%	27%	31%	36%	0%	18%
75-99.9%	64%	21%	20%	0%	14%
100%	2%	0%	0%	100%	44%
Total	100%	100%	100%	100%	100%
Number of Households	500,000	4,430,000	1,600,000	3,270,000	9,800,000
25% or more	100%	82%	86%	100%	92%
Average Equity Ratio	80%	56%	58%	100%	74%

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

[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 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 74.16% as of the third quarter of 2018. 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 is 97%. For the most recent purchases (2015 to 2018), the average ratio is 50%. Even among the most recent purchasers, 74% 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 fall 2018

Equity as Percentage of Home Value	*Before 1990*	*1990s*	*2000-2004*	*2005-2009*	*2010-2014*	*2015-2018*	*All Periods*
Negative Equity	0%	1%	2%	0%	1%	2%	1%
0-4.99%	0%	0%	0%	0%	0%	3%	1%
5-9.99%	0%	0%	0%	1%	0%	2%	1%
10-14.99%	0%	0%	0%	0%	1%	6%	1%
15-24.99%	1%	0%	2%	2%	6%	13%	5%
25-49.99%	1%	1%	8%	16%	23%	30%	15%
50-74.99%	5%	14%	17%	21%	29%	17%	18%
75-99.9%	10%	17%	19%	25%	11%	9%	14%
100%	84%	67%	52%	36%	28%	17%	44%
Total	100%	100%	100%	100%	100%	100%	100%
25% or more	99%	99%	96%	98%	92%	74%	92%
Average Equity Ratio	97%	92%	82%	77%	66%	50%	74%

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

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 $180,000, but the actual amount owed averages about $67,000. Based on these average amounts, and applied to an estimated 2.1 million Canadian households who have HELOCs, it is estimated that the total approved amount is $378 billion, while the total amount owed is $140 billion. As such, HELOC holders have, on average, accessed 37% of the available amounts. The survey found that 18% of HELOC holders do not currently owe anything on their HELOC. On the other hand, 6% have fully utilized the available HELOC.

Table 3-6
Percentages of Available HELOCs Advanced, as of fall 2018

% Advanced	*% of HELOC Holders*
0%	18%
0.1% to 10%	16%
10.1% to 25%	9%
25.1% to 50%	20%
50.1% to 75%	14%
75.1% to 90%	11%
90.1% to 99.9%	6%
100%	6%
Total	100%

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

Equity Takeout

The survey data indicates that 10% of all homeowners (965,000 out of 9.8 million homeowners) took out equity from their homes or increased the amount of the mortgage principal within the past 12 months. This is slightly higher than was found during 2015 to 2017 (about 9%) but is lower than the estimates for prior years (which were typically about 11%). The average amount taken out this year is estimated at a $74,000, indicating that the total amount taken out was $72 billion. Out of the $72 billion, $38 billion was via increases to mortgage principals and $34 billion was via HELOCs. Those who took out equity were asked what they used the money for. Some people indicated more than one purpose. Based on the responses, it is estimated that:

- $16.4 billion (23%) of the money would be used for debt consolidation or repayment
- $17.0 billion (24%) would be used for renovation or home repair
- $8.6 billion (12%) would be used for purchases (including spending for education)
- $23.8 billion (33%) is for investments
- $6.2 billion (9%) 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	13%
2000-2004	15%
2005-2009	12%
2010-2014	12%
2015-2018	8%
All Periods	10%
Source: Mortgage Professionals Canada survey, fall 2018; Analysis by the author.	

The next table compares equity positions for buyers who have taken out equity versus those who have not. Homeowners who have taken out equity have an average equity ratio of 56%, which is lower than for all owners (74%) and for owners who did not take out equity (77%). Yet, the data does indicate that there are still substantial equity ratios for most of those who have taken out equity during the past year. There are very few who have little equity remaining. Out of 965,000 who took out equity, 4% (about 40,000) have less than 10%, 9% (85,000) have 10% to 24.9% equity. On the other hand, 87% (840,000) have more than 25% equity.

Table 3-8 ***Equity Positions for Homeowners Taking Out Equity During the Past Year Versus Those Who Have Not Taken Equity Out***			
Equity as Percentage of Home Value	*Did Not Take Out Equity*	*Took Equity*	*All Homeowners*
negative equity	1%	2%	1%
0-4.99%	1%	1%	1%
5-9.99%	0%	1%	1%
10-14.99%	1%	1%	1%
15-24.99%	4%	8%	5%
25-49.99%	14%	28%	15%
50-74.99%	16%	33%	18%
75-100%	63%	26%	58%
Total	100%	100%	100%
< 10%	2%	4%	2%
25% or more	92%	87%	92%
Average Equity Ratio	77%	56%	74%
Source: Mortgage Professionals Canada survey, fall 2018; Analysis by the author.			

Home Renovations

This edition of the survey investigated renovation activity by homeowners. The first table below indicates that 55% of homeowners have ever renovated their current home (approximately 5.4 million out of 9.8 million homeowners). 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 27% of homeowners (or approximately 2.6 million out of 9.8 million owners) renovated their home during 2015 to 2018. This data shows that among the owners who purchased their home during 2015 to 2018, 39% have renovated the homes. Among the other purchase periods, the shares who have renovated recently are lower.

The survey data indicates that homeowners who have renovated recently spent an average of $41,000. For the 2.6 million renovators, the total expenditure during the period was about $109 billion, and the average annual expenditure was about $28 billion[11].

Table 3-9
Percentages of Home Owners Who Have Renovated their Current Homes, by Period of Purchase

Period of Purchase	*Per Cent of Homeowners Who Renovated*		*Average Expenditure For Owners Who Renovated During 2015-2018*
	Any Period	*During 2015-2018*	
Before 1990	81%	20%	$41,000
1990-1999	74%	31%	$51,000
2000-2004	67%	23%	$47,000
2005-2009	53%	26%	$38,000
2010-2014	48%	26%	$45,000
2015-2018	39%	39%	$36,000
Total	55%	27%	$41,000

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

The homeowners 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.

[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 3-10 *Types of Home Renovations,* *For Renovations During 2015 to 2018*		
Type of Renovation	*% Mentioning*	
	All Purchase Periods	*Purchased 2015-2018*
Maintenance and Repair (e.g. window or door replacement, landscaping, roof replacement, foundation repairs, plumbing or electrical repairs, etc.)	72%	57%
Expansion (e.g. finished basement or attic, addition of rooms or levels, etc.)	24%	16%
Energy Efficiency (e.g. energy-efficient lighting or insulation, addition of solar panels, etc.)	40%	36%
Cosmetic changes (e.g. painting, finishes, etc.)	74%	68%
Updates (e.g. kitchen, bathroom, landscaping, flooring, etc.)	71%	60%
Other	5%	6%
Source: Mortgage Professionals Canada survey, fall 2018; 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 more than one-fifth of the renovators.

Table 3-11 *Reasons for Home Renovations, for Renovations During 2015 to 2018*		
Reason for Renovations	*% Mentioning*	
	All Purchase Periods	*Purchased 2015-2018*
Increase the value of my home for resale	40%	46%
Add additional space for myself/my family	17%	13%
Add additional space to rent out a portion of the home	3%	3%
Upgrade the home for my personal preference	79%	78%
Necessary work for safety	22%	25%
Protect the physical integrity of the building	24%	21%
Other	3%	5%
Source: Mortgage Professionals Canada survey, fall 2018; Analysis by the author.		

Sources of 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 have been quite 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 two 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, the stress test has applied to all insured mortgages since the fall of 2016. Secondly, increases in the cost of mortgage insurance took effect early in 2017.[12]

Table 3-12
Average Down Payment for First-Time Homebuyers, by Period of Purchase

Period of Purchase	*% Down-Payment*	*% With Down Payment of Less than 20%*
Before 1990	20%	64%
1990-1999	23%	60%
2000-2004	17%	68%
2005-2009	18%	71%
2010-2014	20%	58%
2015-2018	20%	53%
Total	20%	62%

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

The survey has also investigated sources of the funds that first-time buyers have used for down payments. The survey explicitly listed six sources, plus an "other" category. Most first-time buyers use more than one source of funds: less than one-half (44%) of first-time buyers used only one source. A further 37% used two sources. The remaining 19% used three or more sources. On average 1.9 sources have been used. This figure has increased over time: for people who bought their first home prior to 1990, the average was 1.7 sources; for the most recent first-time buyers (2015 to 2018), the average is 2.4 sources. The next two tables summarize the data on sources of down payments.

The first table looks at whether each source was used. It shows that 84% of first-time buyers used their personal savings for part of or all of their down payment. 26% used a gift from family

[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.

members (again, for part of or all of the down payment). Because more than one source can be indicated, the totals from all sources exceed 100%.

The utilization of sources has evolved over time. As house prices have escalated over time, and required 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 data in this table shows that an increased share of first-time buyers is receiving assistance from family: for the most recent buyers, 45% received gifts and 18% received loans from family; some of them received both a loan and a gift. These figures are far above what was seen for earlier purchase periods. However, we need to bear in mind that the buyers receiving this help are also relying on other sources. The result, as is shown in the second table below, is that support from family amounts to 20% of the total down payment for the most recent buyers (this includes 15% in the form of gifts and 5% in the form of loans). The share of first-time buyers who utilize their own savings has not been reduced. Two other significant sources of down payment funds are loans from financial institutions and withdrawals from RRSPs, and in both cases recent buyers are more likely to utilize these two sources compared to earlier buyers.

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	88%	17%	14%	30%	2%	10%	5%
1990s	82%	21%	13%	34%	1%	23%	4%
2000-04	79%	29%	16%	26%	2%	34%	4%
2005-09	76%	22%	15%	24%	3%	34%	3%
2010-14	86%	38%	14%	28%	6%	37%	5%
2015-18	87%	45%	18%	38%	8%	36%	7%
Total	84%	26%	15%	30%	3%	25%	5%

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

By far, the most important source of funds is personal savings, which provides about one-half of total down payments. The data for the most recent purchasers indicates that the share from this source has been reduced. Even so, that share of 45% is more than twice as large as the 20% provided by family.

Loans from financial institutions has historically been more important overall than family help. For the most recent buyers, the share from financial institutions equals the share from family.

The share of down payments provided by withdrawals from RRSPs peaked a decade ago and has fallen for more 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.

For the combination of personal savings plus RRSP withdrawals (to represent the buyers' own resources), has averaged 62% for all periods of first-time purchases. The figure for the most recent purchases (2015 to 2018) has fallen below that average (but, at 55%, this is still substantial).

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

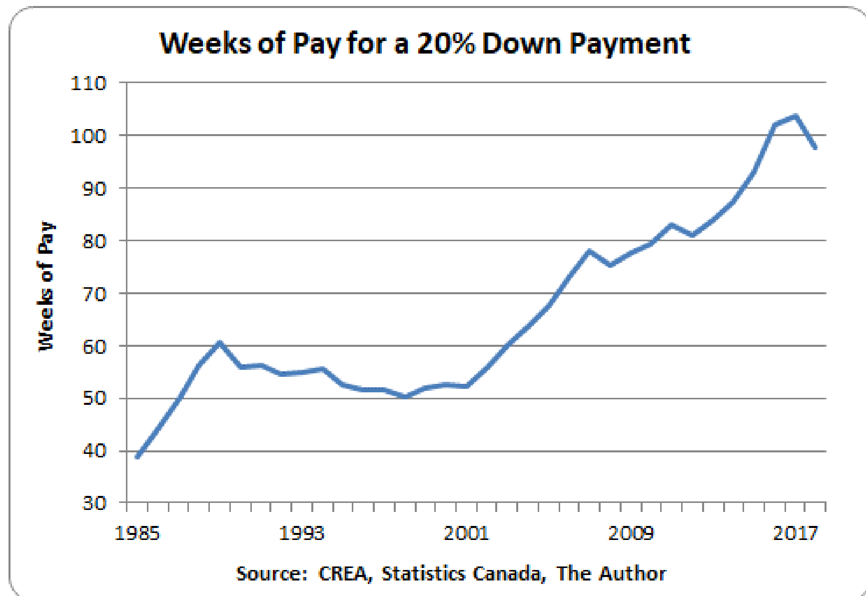
Period of Purchase	*Personal savings or co-buyer's personal savings*	*Gift from parents/ other family members*	*Loan from parents/ other family members*	*Loan from a financial institution*	*Loan from my employer*	*Withdrawal from RRSP (including Home Buyers' Plan)*	*Other*	*Total*
Before 1990	59%	7%	6%	21%	0%	3%	2%	100%
1990s	49%	10%	5%	23%	0%	11%	2%	100%
2000-04	48%	12%	5%	16%	0%	17%	2%	100%
2005-09	49%	10%	5%	16%	1%	17%	2%	100%
2010-14	50%	16%	4%	14%	1%	12%	2%	100%
2015-18	45%	15%	5%	20%	1%	10%	4%	100%
Total	52%	11%	5%	19%	1%	10%	2%	100%

Source: Mortgage Professionals Canada survey, fall 2018; 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. That continuing affordability resulted in strong housing demand, causing housing prices to increase. The rates of increase have varied across the country, depending on local conditions. To varying degrees across the country, house prices have filled some of that available affordability space. Price growth has been most rapid in communities that have the greatest imbalances between housing supply and demand, especially Toronto and Vancouver and the surrounding areas. In both of these areas, there has been insufficient construction of new dwellings for many years

(especially for low-rise dwellings) and in consequence there is not enough existing housing available for purchase.



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 the average weekly earnings (as reported by Statistics Canada)[13]. It now takes about twice as long to save for a down payment as it did a decade and a half ago.

This is a simplistic presentation, as potential first-time homebuyers obviously cannot save all of their income. 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 homebuyers, the time required will be longer than the periods shown, depending on individual circumstances.

As was shown earlier, down payments by first-time buyers have been consistent over a long period of time, at about 20% of purchase prices. Sources of down payments have also changed relatively little, with the exception that the share that is provided from other family members (via loans and gifts) has increased. Given the greatly increased burden of down payments relative to incomes, that stability is surprising. It implies that it is now taking longer for first-time buyers to get ready to buy than it did in the past.

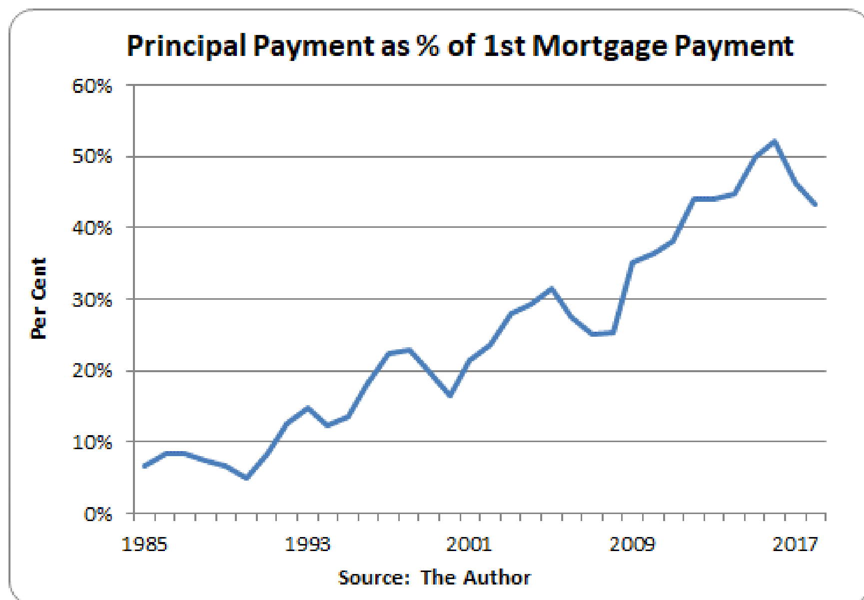
Job creation is one of the two main drivers of homebuying activity (the other being affordability). History shows that it takes time for jobs to actually result in purchases, because of the amount of time required to save down payments. A corollary of this analysis of worsening down payment burdens is that this lag may be getting longer.

[13] For 2018, the estimate is based on data for the first nine months.

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 shifted markedly away from interest payments towards principal repayment. 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. As the average interest rate increased during 2017 and 2018, the principal share has fallen, but remains very high: at the 2018 average rate of 3.38%, 43% of the first payment is repayment of principal.

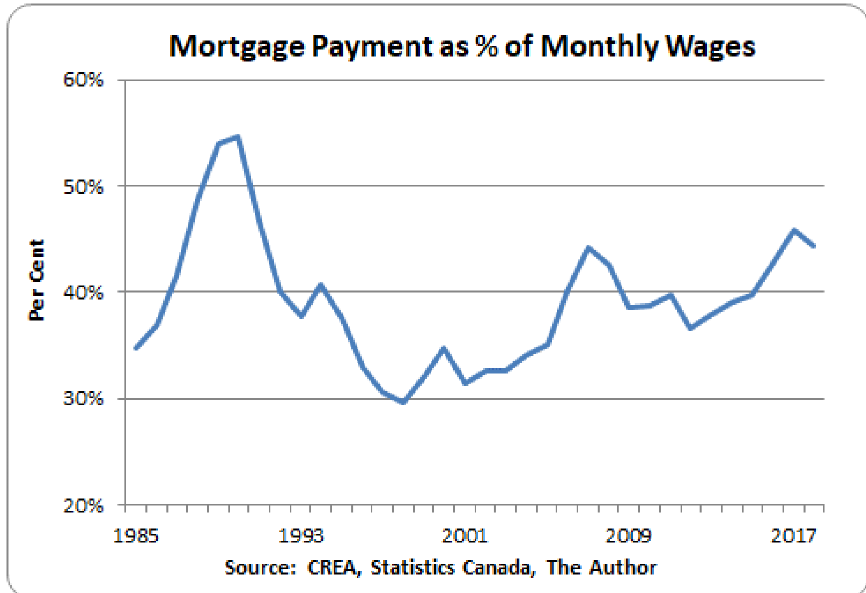


A set of charts below creates a notional look at how mortgage costs have evolved over time, and the division of those costs between interest and principal repayment – as of the very first mortgage payment. In these charts:

- 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.

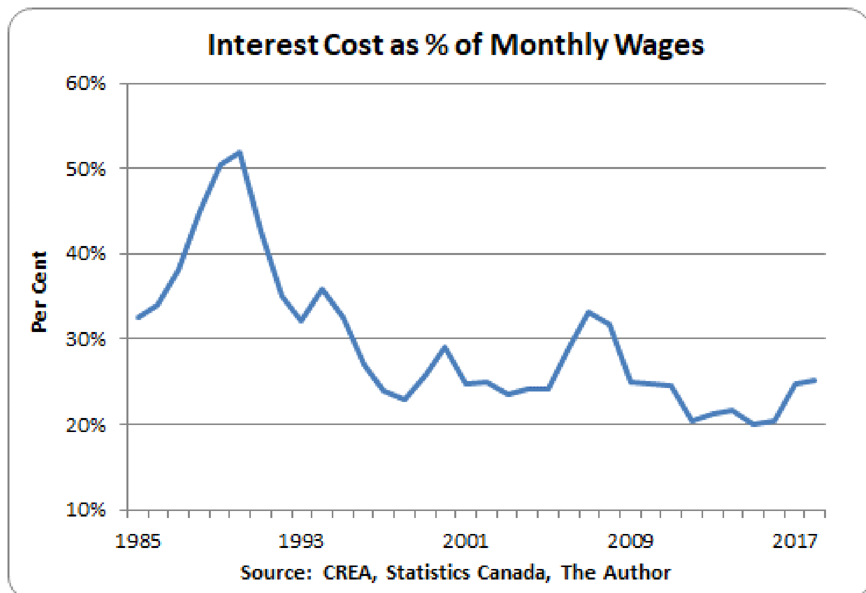
These calculations result in relatively high cost-to-income-ratios, in large part because they assume just one income, whereas a large share of home buying households have two (or even more) income earners. Another consideration is that the buyer of an average-priced home likely has an above-average income. Therefore, these estimates overstate the cost ratios that would be experienced by typical home buyers. For that reason, the reader should look at how the data has changed over time, rather than at the levels of the estimates.

The first chart looks at the total mortgage payment relative to the assumed income. As of 2018, the ratio of mortgage cost to income is 44.3%, which is above the average of 39.1% for the entire period shown. On this basis, the cost of making a new home purchase is currently slightly above the long-term average, but it is within the range that has been seen historically.

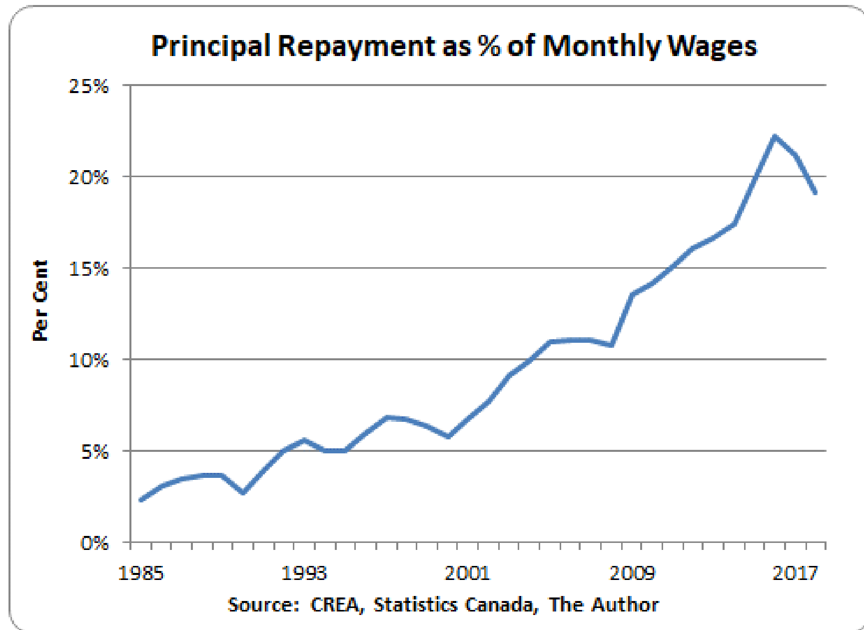


Recalling that mortgage payments are a mix of interest and principal, many homebuyers will surely consider the components: how much will they actually pay in interest versus how much they pay towards the principal.

The chart to the right shows that the interest burden (in relation to wages, as of the first month) was far below the long-term average during 2012 to 2016. The ratio increased in 2017 and 2018, but at 25.1% in 2018 it remains well below the long-term average of 29.4%. 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 rather than a cost (although it is "involuntary" or "forced" saving). The forced saving component of mortgage payments has risen sharply in relation to incomes. In 2018 forced savings via mortgage payments amount to 19.7% of monthly incomes, which is far above the long-term average of just 9.7%).



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 deteriorated in 2017 and 2018.
- 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 was, until recently, at its most affordable in a very long time. Even with the recent rise in interest rates, this measure of affordability is very favourable.
- Home ownership represents a very aggressive forced saving program.

This excellent "net affordability" goes a long way to explaining why housing activity has remained quite strong in Canada, despite the rapid run-up in house prices.

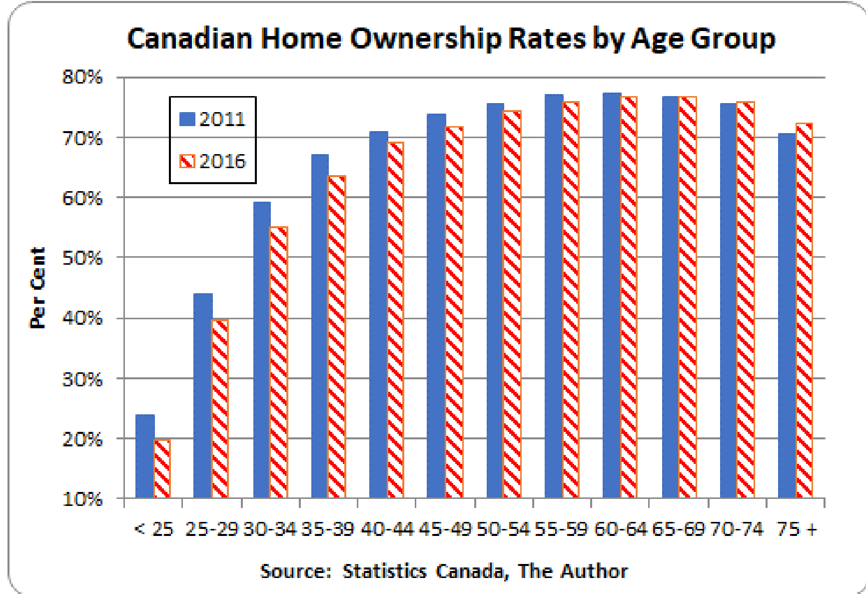
However, the large amounts of forced saving that occur through homeownership are indeed a burden in terms of consumers' cash flows, and this has to some degree reduced buying activity.

Given the very aggressive rate of forced saving that results from 25-year amortization periods, we need to talk about 30-year amortization. Use of 30-year amortization would reduce the rate of forced saving for 2018 to 14.5% (which would still be very high, and continue to result in rapid accumulation of home equity) versus the 19.7% that results from 25-year amortization.

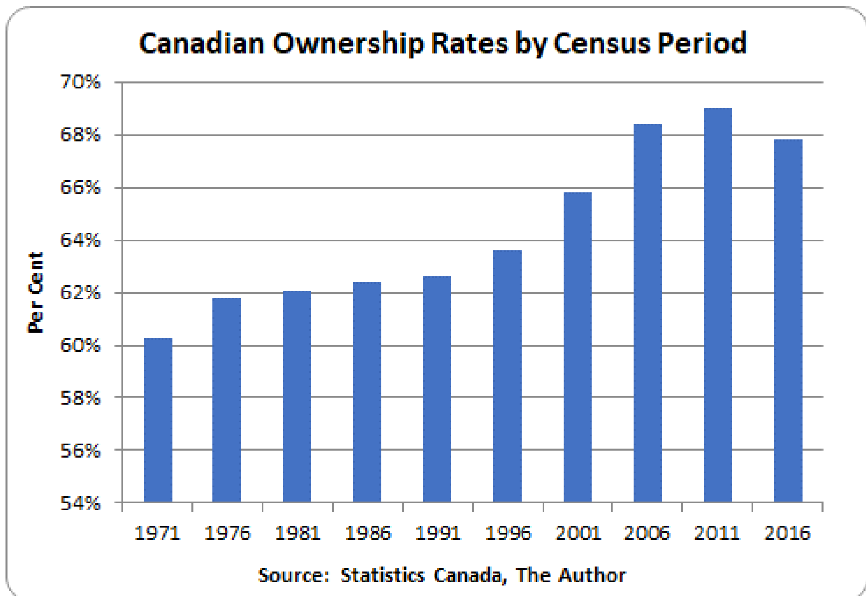
A Falling Homeownership Rate in Canada

This section repeats analysis provided in prior editions of these reports.

Data from the 2016 Census shows that the homeownership rate has fallen in Canada. The 2016 rate of 67.8% is 1.2 points lower than the 69.0% rate for 2011. As is shown in this chart, homeownership 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 homeownership 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 homeownership 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 homebuying 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 home buyers.

At this juncture, it appears that the homeownership rate in Canada will 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.

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 average scores. The responses have changed relatively little over time.

- There is 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". This year, the score of 6.76 is below the average seen during the nine year history of this question (6.97 out of 10). This is the lowest score recorded to date (fractionally below the previous low of 6.80). Scores showed little variation across the country.
- On the other hand, consumers seem to be increasingly 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). These scores have trended downwards over time, and this year a new record low was set (3.37 out of 10, versus the average of 3.76 for the entire period). As we have commented in prior years: 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 3.35, and Ontario at 3.41) the scores are essentially equal to the national average of 3.37.
- Canadians' confidence about their ability to weather a downturn in the housing market has also trended upwards over time. The average for this year (7.02 out of 10) is above the historic average of 6.87, although it is slightly below the record high that was seen last year (7.09). Responses show little variation across the country. In British Columbia (which we might suspect would be the most vulnerable, given its high housing prices), the average score of 7.04 was very close to the national average of 7.02. In Ontario, the average score was slightly above average, at 7.14.
- Canadians have strongly agreed with the proposition that real estate is a good long-term investment. The average score this year (7.22) is fractionally below the historic average of 7.26. There are minor variations across the country. The highest ratings are found in Ontario (7.41) and Quebec (7.31), which are slightly above the national average of 7.22. In British Columbia, which is currently experiencing a moderation after a long period of extremely rapid price growth, the average score of 7.20 is essentially equal to the national

average. The lowest scores are found in Saskatchewan (an average of 6.48), which has experienced gradual price erosion during the past three years. Scores are also slightly below average in the Atlantic region (6.87), Manitoba (6.90), and Alberta (6.95). In the first two cases, housing market conditions can be considered "moderate". In Alberta, local markets have been considerably weakened and it appears that prices are starting to erode.

- The level of confidence about the economy is slightly below average this year (6.01 versus the historic average of 6.16). Looking across the country, confidence is above the national average in Quebec (6.46) and Nova Scotia (6.28). For Ontario, the score of 6.02 is essentially equal to the national average. The remaining provinces are below average: British Columbia (5.87), Manitoba (5.72), New Brunswick (5.56), Alberta (5.44), Saskatchewan (5.37), and Newfoundland and Labrador (5.26). For Prince Edward Island, the sample size is too small to yield a statistically reliable estimate.
- There is agreement that mortgages are "good debt", although the average scores have fallen gradually over time. The figure for this year (6.87) is below the historic average of 7.05. Opinions show very little variation across the country, as most provincial averages are close to the national average of 6.87. Two exceptions are Saskatchewan (6.47) and Alberta (6.66).

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

	Fall 2010	*Fall 2011*	*Fall 2012*	*Fall 2013*	*Fall 2014*	*Fall 2015*	*Fall 2016*	*Fall 2017*	*Fall 2018*
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
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
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
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
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
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

Source: Mortgage Professionals Canada survey, fall 2010 to fall 2018; Estimates by the author.

The next table looks at the 2018 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 bought many years ago. Recent buyers also agree with the statement, but less vigorously. "Non-owners" (people who rent or live with their parents) show the lowest level of agreement.
- Levels of regret about mortgages vary, depending on when the homes were purchased. Regret is higher for the most recent buyers than it is for those who purchased before 2000. Taking this data at face value, we might be tempted to conclude that the changing housing market environment (especially the rapid growth in house prices that has occurred during the past two decades) has caused consumers to have more regrets about their mortgages. This was explored in detail in the fall 2017 report. The conclusion drawn was that the differences in regret by period of purchase are due to an erosion of regret that occurs 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 concerns diminish very gradually over time, which results in the differences seen in the second row of data in the next table.
- Opinions about whether mortgages are "good debt" show only minor variations among the different vintages of home owners. Non-owners have considerably lower opinions about this (although the average score they have given is still above the neutral score of 5.5).
- For the three remaining propositions (ability to withstand a fall in housing prices, real estate as a long-term investment, and optimism about the economy), agreement with the "positive" positions is strongest for those who purchased longest ago and is weakest for non-owners.

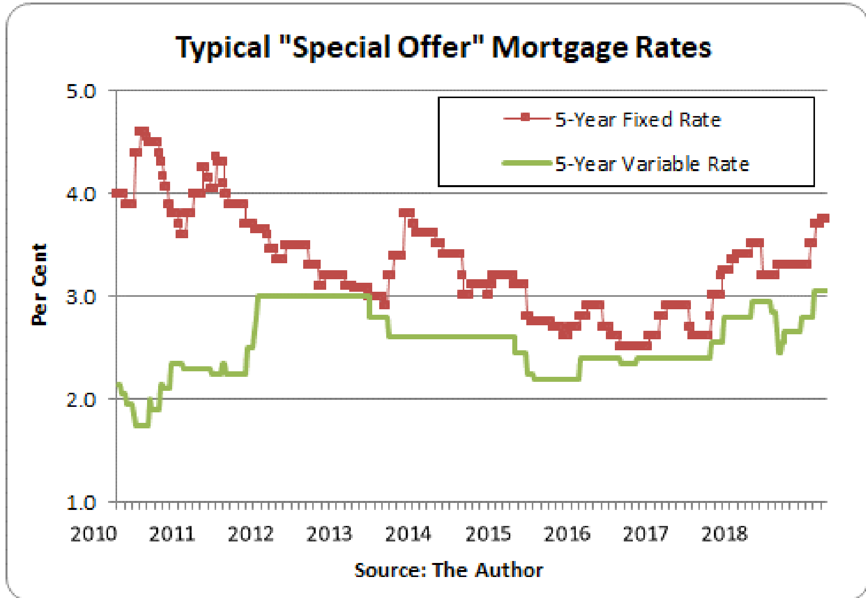
Table 4-2 *Summary of Consumer Responses to Topical Question,* *As of fall 2018, by Period When Homes Were Purchased* *(Average Scores on a Scale of 1 to 10)*								
	Pre-1990	*1990s*	*2000-2004*	*2005-2009*	*2010-2014*	*2015-2018*	*Non-owners*	*All Responses*
Low interest rates have meant that a lot of Canadians became homeowners over the past few years who should probably not be homeowners	7.18	7.16	7.17	6.63	6.97	6.66	6.49	6.76
I regret taking on the size of mortgage I did	2.80	2.89	3.15	3.10	3.21	3.28	N/A	3.37
I/My family would be well-positioned to weather a potential downturn in home prices	8.12	7.91	7.67	7.47	7.31	7.10	6.10	7.02
Real estate in Canada is a good long-term investment	7.72	7.62	7.49	7.57	7.38	7.46	6.66	7.22
I am optimistic about the economy in the coming 12 months	6.65	6.21	6.31	6.32	6.14	6.04	5.56	6.01
I would classify mortgages as "good debt"	7.26	7.22	7.29	7.35	7.16	7.27	6.19	6.87
Source: Mortgage Professionals Canada survey, fall 2018; 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 5.50.
- Attitudes are below the neutral level in British Columbia (5.02) and Ontario (5.16), and above neutral in Atlantic Canada (5.99), Quebec (5.85), Manitoba (6.18), Saskatchewan (5.74), and Alberta (5.79).
- Concerning house price growth for the coming year, the responses indicate expectations for moderate growth. The average response for this year (6.38 out of 10) is very similar to the average for the entire period from 2010 to the present (6.36). Expectations are below the neutral level in Saskatchewan (5.25) and Alberta (5.45). The average scores elsewhere are: Atlantic Canada (6.01), Quebec (6.83), Ontario (6.59), Manitoba (6.46), and British Columbia (6.03). Expectations have been reduced considerably in British Columbia (the average score last year was 6.80).

- 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 increased further this year, to 7.15. This is considerably above the average of 6.50 for the entire period, indicating that Canadians expect larger rises in interest rates. 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). It may be that the responses this year are a reaction to the increases in interest rates that have occurred this year, and especially the rises that occurred just before our survey (which occurred during the third week of November).



- Expectations about buying homes have been roughly flat over time, with only minor variations. The average score for 2018 (2.91) is fractionally below (and essentially equal to) the long-term average of 2.97. The low level of the average scores is appropriate, since only about 5% of Canadian households buy a home in any given year. The responses vary quite widely across the country. Consumers in Atlantic Canada gave the lowest responses (an average of 2.44 for this year), followed by Manitoba (2.49), Quebec (2.70), Alberta (2.93), British Columbia (2.95), Saskatchewan (2.97), and Ontario (3.17).

Table 4-3 *Summary of Consumer Responses on Expectations, by Date of Survey* *(Average Scores on a Scale of 1 to 10)*									
	Fall 2010	*Fall 2011*	*Fall 2012*	*Fall 2013*	*Fall 2014*	*Fall 2015*	*Fall 2016*	*Fall 2017*	*Fall 2018*
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
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
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
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
Source: Mortgage Professionals Canada survey, fall 2010 to fall 2018; Estimates by the author.									

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 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 (90%).
- A very small minority (2%) indicated that "I regret my decision and – I wish I did not choose to own a home".
- In addition, 8% indicated "I regret my decision – I wish I had purchased a different home/property".
- These responses are very similar to the results from prior surveys.
- For the most recent buyers, responses are identical to the overall averages.
- Looking across the country, responses are most favourable in Quebec (95% are "happy"), Saskatchewan (94%), and Manitoba (91%). Responses are fractionally below the national average in British Columbia (89%) Ontario (88%), Atlantic Canada (88%), and Alberta (87%).

Table 4-4 *Happiness with Decision to Buy a Home, by Period of Purchase*							
	Pre-1990	*1990s*	*2000-2004*	*2005-2009*	*2010-2014*	*2015-2018*	*All Periods*
I am happy with my decision	96%	97%	88%	88%	86%	90%	90%
I regret my decision – I wish I did not choose to own a home	0%	0%	1%	2%	4%	2%	2%
I regret my decision – I wish I had purchased a different home/property	4%	3%	12%	10%	10%	8%	8%
Total	100%	100%	100%	100%	100%	100%	100%
Source: Mortgage Professionals Canada survey, fall 2018; analysis by the author.							

Reasons for Not Owning a Home

The fall 2018 survey asked consumers who are not homeowners for the reason (or reasons) they do not own a home. Ten possible answers (plus an "other" option) were available. More than one response could be given. Responses are summarized in the next table.

- Within the younger age groups, responses vary quite widely. Issues related to personal financial circumstances are prominent for the youngest age group.
- In particular, needing more time to save a down payment is mentioned by 48% among the youngest age group.
- Lack of financial and/or employment stability is also frequently mentioned by the youngest age group, at 24% this year. As well, waiting for home prices to drop is another significant reason, at 24% (although it isn't clear whether these people believe prices will drop or need them to drop before they can afford to buy).
- The thought that living with family is all that can be afforded was mentioned by 21% of young adults this year.
- Within the middle of the three age groups, financial reasons remain important, but preference reasons are also gaining prominence ("Renting is a better option for me" is mentioned by 30% and "I am comfortable in my current situation" is mentioned by 28%).
- For the oldest age group, lifestyle and preference reasons are cited much more frequently than financial considerations. "I am comfortable in my current situation" is the most frequent reason given, cited by 46%, followed by "Renting is a better option for me" (43%).
- Interestingly, concern about future interest rate rises is rare across all ages; there were few mentions of negative attitudes about home ownership as an investment.

Table 4-5 *Reasons for Not Owning a Home, by Age Group*				
Summary	*18-34*	*35-54*	*55 +*	*All Ages*
Nervous that rates will increase	5%	4%	3%	4%
Lack of financial and/or employment stability	24%	23%	9%	21%
Waiting for home prices to decrease	24%	24%	5%	20%
Renting is a better option for me	17%	30%	43%	28%
I need more time to save for a down payment	48%	33%	5%	33%
Living with my parents/family is all I can afford	21%	9%	2%	12%
The idea of owning a home is too stressful	6%	15%	3%	9%
I am not interested in owning a home	8%	13%	16%	12%
I don't believe homeownership is a good investment	6%	8%	4%	6%
I am comfortable in my current situation	22%	28%	46%	29%
Other	6%	10%	11%	9%
Number of Reasons	1.9	2.0	1.5	1.8
Source: Mortgage Professionals Canada; Survey, fall 2018; Analysis by the author.				

5.0 Outlook for the Mortgage Market

Uncertainty about a Key Economic Metric

This section begins with a lengthy digression, on a key issue in interpreting (and forecasting) housing market trends in Canada. It includes a set of suggestions which, I hope, Statistics Canada will consider.

Job creation is a fundamental driver of the housing market. 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.

The housing market doesn't react instantaneously to changes in employment: after getting a job, it takes people time to make decisions and then to act on those decisions. In the case of home-buying, for many people there is a lag of several years between getting a first job and making a purchase. It takes time to save a down payment. Also, people usually need to make other important life-decisions that are complementary to home-buying (such as getting married or deciding to stay single, deciding whether or not they want to have children, or feeling comfortable and secure in their jobs).

In order to interpret the housing market, and even more so to forecast the market, the analyst needs to closely watch the data on employment.

The data on employment must be reasonably accurate: economic forecasting is perilous even under ideal conditions. If any of the key input data is wrong then the risk of erroneous forecasting gets even larger than it already is.

This preamble brings us to the recent data on employment growth in Canada.

- Data for November (from Statistics Canada's Labour Force Survey, or "LFS", which was released on December 7) showed a huge jump: growth of 94,100 (or 0.5%) in just one month. Taken at face value, this is incredibly good news. Yet, it followed a period of 10 months during which the data showed very slow growth, at an average of just 6,000 per month. The result is that for the year up to November, employment in Canada was estimated to have expanded by 1.2%.
- December's report (released on January 4) showed a rise of just 9,300 for the month, and a year-over-year change of just 0.9%.
- Both of these estimates are slower than the rate at which the adult population is growing (1.4%). In this context, the recent performance of employment appears to be mediocre. Moreover, the recent growth rates for employment are a sharp slowdown from the rate of 2.3% that was seen a year ago.

In this light, the employment data is becoming negative for the housing market. This would help us to explain why housing activity has slowed, and might even lead us to conclude that there will be further reductions in housing activity going forward (since housing activity lags behind job creation). This might even lead us to think that the housing slowdown is not due to the mortgage stress tests, but to the evolving economic situation.

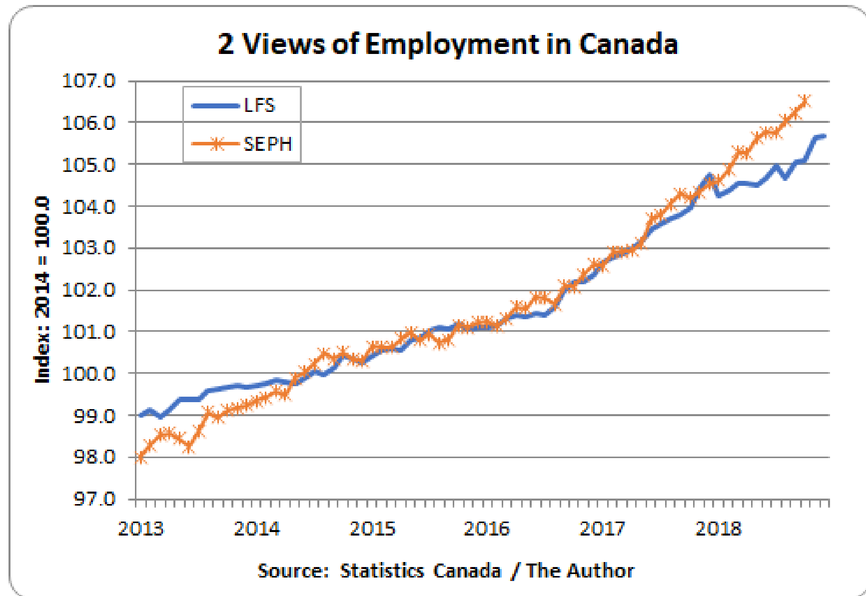
But what if this employment data is wrong, and in fact job creation is still quite strong? In that case, we couldn't attribute the slowdown in housing activity to the employment situation, and we should tend to be more positive about the outlook.

The remainder of this discussion further explores the employment data. It concludes that the recent data is probably wrong, and that the employment situation might be considerably better than is indicated by the data from the Labour Force Survey.

Statistics Canada has two major surveys of the employment situation:

- The Labour Force Survey is the most cited, since it comes out soonest (usually the first Friday of the following month).
- Statistics Canada produces another set of data on the employment situation (from its "Survey of Employment, Payrolls and Hours", or "SEPH"). However, the SEPH data comes out almost two months later than the LFS data and therefore it gets very little attention.
- At the time of writing (early January), we have data from the LFS for December but the SEPH data is for October.
- In sharp contrast to the LFS data that shows mediocre growth over the past year, the SEPH data shows a growth rate of 2.2% for the year to October, and a growth rate of 2.1% a year earlier. As has been discussed, during the past year the recent LFS data has shown growth rates that are much slower.

Both of these surveys are capable of generating erroneous data, but when they disagree, it is more likely that the Labour Force Survey is the culprit. It is based on a sample survey of households. Just like political opinion surveys, it can be wrong (usually by small amounts and sometimes by quite large amounts). For SEPH, the employment estimates are based on the monthly filings that businesses submit to the Canada Revenue Agency for payroll deductions. The data source is much more comprehensive and much less likely to produce major errors.



The chart to the right contrasts data from the two surveys on the evolving level of employment: the author has converted the two datasets into "indexes" of employment. The two indexes show that much of the time the datasets follow similar trends, but there are some periods where they disagree. For the past year, the SEPH data has shown a continuation of strong growth (2.2% for the past year, which is similar to the 2.1% rate seen a year earlier: these are very healthy growth rates). Another point, which is a bit harder to see in this chart, is that during the past year the LFS data has shown an unusual number of very large changes, which makes this data inherently suspect[14].

If we trust the SEPH data and the strong performance that it shows, we should expect that housing activity would currently be strong in Canada.

There is a similar situation in the United States: there are two major surveys that generate data on employment:

- The "Current Population Survey" is analogous to our Labour Force Survey. It is a household survey. It also suffers from highly variable estimates of job creation.
- The "Current Employment Statistics" program is "based on payroll records of business establishments" and is analogous to our SEPH.
- In the U.S., unlike in Canada, the two datasets are released on the same day. In consequence, the job growth numbers that are produced by the household survey are ignored and the commentary (and reactions in financial markets) rely on the "establishments" data. We, sadly, don't have that opportunity.

It would be great if Statistics Canada could also release its two surveys on the same day, but that's not going to happen. We need to find another solution to reduce the volatility of the LFS estimates.

I have a set of suggestions, which I hope Statistics Canada will consider.

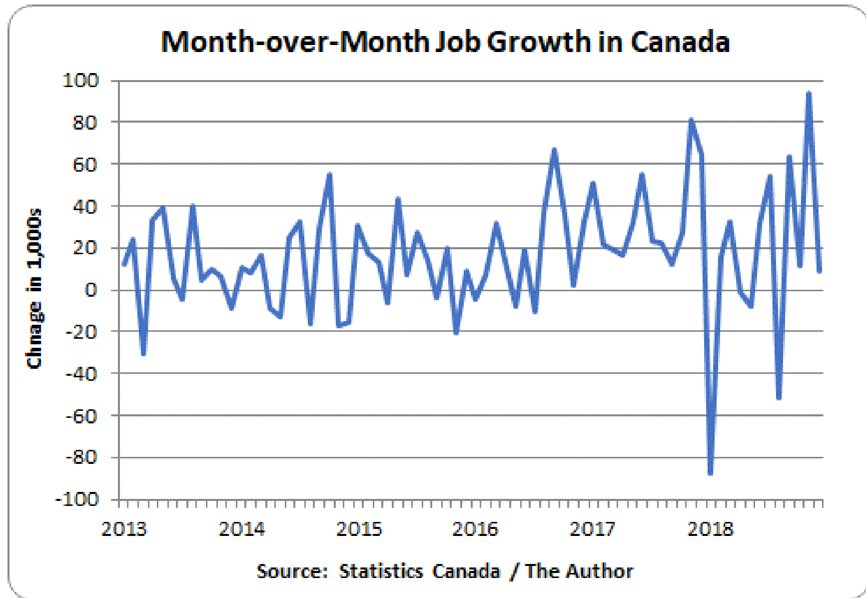
[14] Since November 2017, the LFS estimates have a standard deviation of 50; the SEPH data has a standard deviation of 20.

- Firstly, reflecting that Statistics Canada is publishing estimates and not objective reality, the monthly results should be expressed with less certainty. Instead of beginning with highly confident language like "Employment rose by 94,000 in November", four words should be added up front: "It is estimated that…".

The Labour Force Survey uses a rotating sample: one-sixth of the sample leaves each month and is replaced. I suspect that when there are large and unbelievable variations (positive or negative) in the estimates of month-to-month employment growth, these often occur because the people entering the survey have different "labour force characteristics" than the people who left. Thus, the changes that result are not "true", they are "sampling errors". Now, it isn't possible to directly compare those two groups (those entering and those leaving), but is it possible to compare the people who enter with the people who have remained in the sample. And, for the prior month, it is possible to compare the characteristics of people who are about to leave the sample with those who will remain. This leads to additional suggestions.

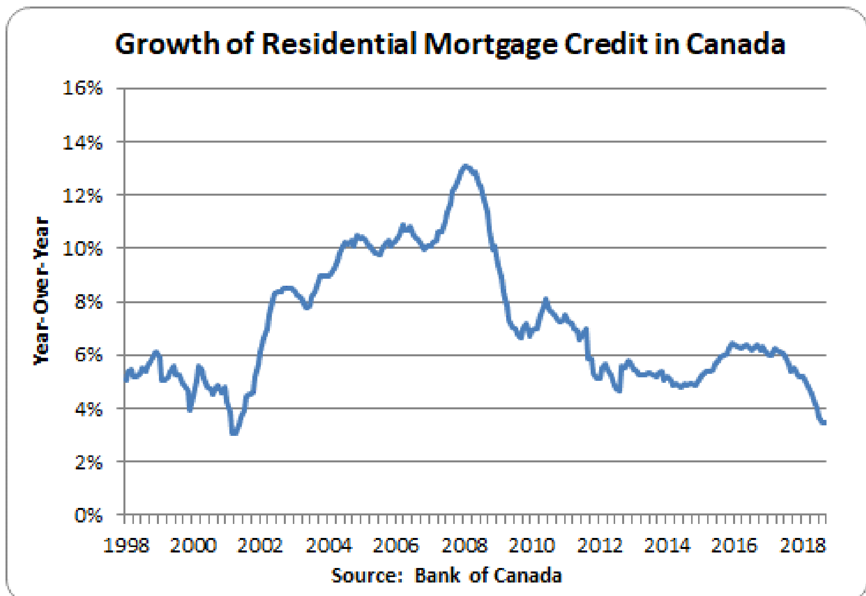
- Secondly, Statistics Canada should do a retrospective analysis to determine to what extent sample rotation (different characteristics for people entering and exiting the sample, as compared to a "constant sample") has resulted in unusual estimates of monthly employment growth. That analysis should be published, including a set of estimates that contrasts the original estimates with a new set that is based on a constant sample analysis.
- Thirdly, monthly job growth estimates can be based on a "constant sample" analysis (using the five-sixths of the sample that were in the sample in both the current and previous month). There are lots of cases where constant sample analysis is used to generate economic estimates, including the Case Shiller house price index in the U.S. (and its Canadian equivalent, the Teranet/National Bank index), as well as the estimates of rent growth that are produced by Canada Mortgage and Housing Corporation.
- Fourthly, if Statistics Canada is unable to reduce the occurrences of statistical out-riders in the LFS data then it should, as a minimum, add to its monthly routines an analysis of the effects of sample rotation, and where there has been an impact on data quality, the audience should clearly be advised (in the first paragraph of the release).
- Finally, can Statistics Canada find a way to produce preliminary estimates from SEPH that are released on the same day as LFS (as is done in the U.S.)? It might be responded that the preliminary SEPH data would be subject to subsequent revisions. Guess what? The U.S. "establishments" data is subject to subsequent revisions every month. Sometimes those revisions are very large.

One last comment here, intended for my friends and colleagues in the commentariat, and in the news media: when Statistics Canada publishes data showing an extreme event for employment (which has happened in seven of the last 14 months), your usual reaction is to run with it and explain why this is great and/or horrible. You would do your readers a much greater service by explaining that sometimes data is wrong.



A Sharp Deceleration for Mortgage Growth

Data from the Bank of Canada (published by Statistics Canada) indicates that mortgage credit growth has slowed sharply in Canada. As of September, the year-over-year growth rate is 3.5%, which is close to being the slowest rate of the past two decades. Further, over the past six months, the annualized growth rate is just 2.6%, which is a record low rate of growth.



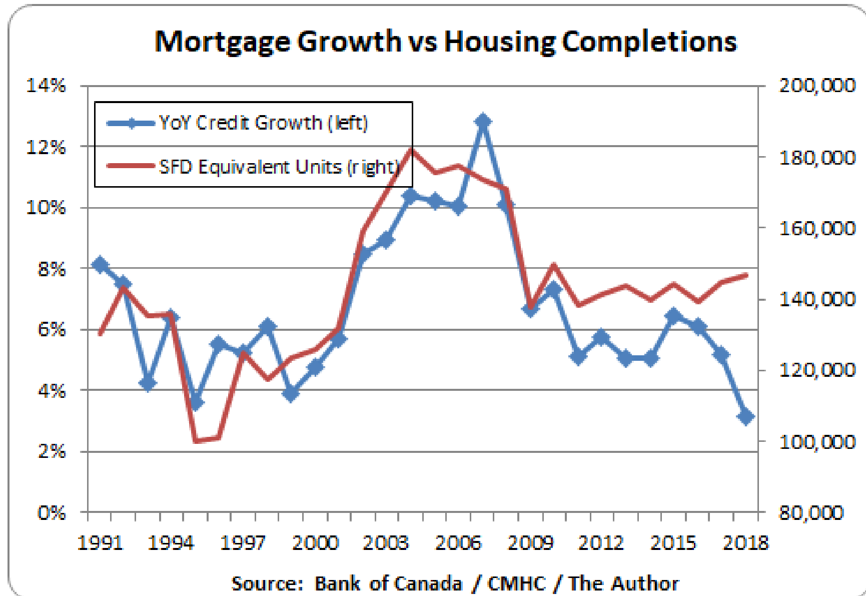
Factors Driving Mortgage Credit Growth

Many 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 larger associated mortgage

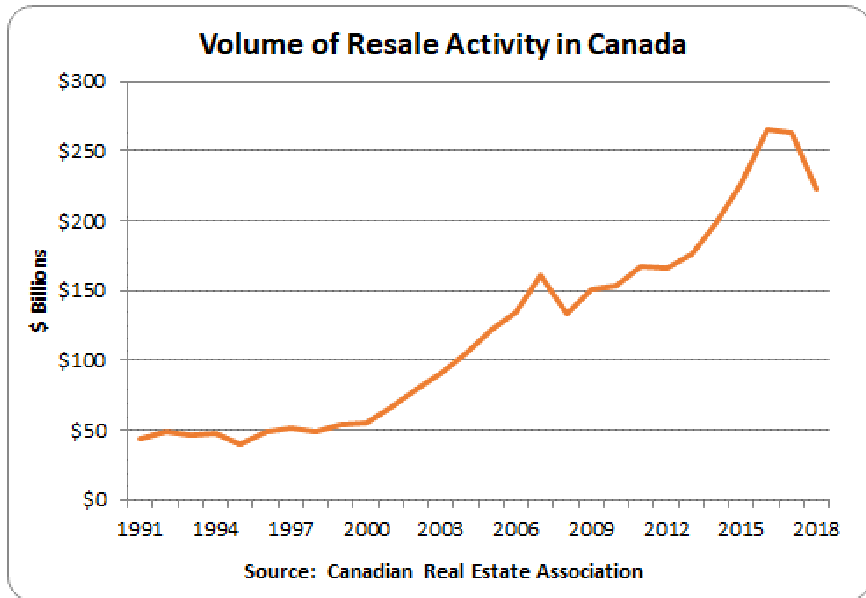
amounts. Over the long-term, this factor alone may account for about a quarter of mortgage credit growth in Canada.

- 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; however, that relationship has weakened during the past decade.
- There are two major reasons for this. Firstly, 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 37% of the total at present versus a long-term average of 52%). More apartments are being built (44% at present versus a long-term average of 31%). The shares for semi-detached and town homes have been roughly flat (combined totals just under 20%).
- 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 gap between growth of mortgage credit versus housing completions has been reduced, but not eliminated.



- 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-percentage point. During the 12 months up to September 2018, there were about 148,800 housing completions (on the SFD equivalent basis), which was about 4,000 units higher than for all of 2017. This factor in itself would have contributed to a small rise in the growth rate for mortgage credit.

- 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 (0.3 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. During the 12 months up to September 2018, the dollar volume of resale activity totaled about $231 billion, which was 11.4% lower than the total for 2017. This in itself would contribute to a reduced growth rate for mortgage credit.



- 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). Therefore, the interest rate increases that have happened since mid-2017 are having only a negligible direct effect on additional, voluntary repayment efforts and the growth rate for mortgage credit. The higher interest rates will, however, have indirect effects, due to the reduction of resale market activity. As of September 2018, the author's estimates of the typical "special offer" interest rate for 5-year fixed rate mortgages have averaged 3.02% (for the past five years). This was fractionally above the average of 3.00% as of the end of 2017. This in itself would contribute to a microscopic increase in the rate of mortgage 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 5.9% during the year up to

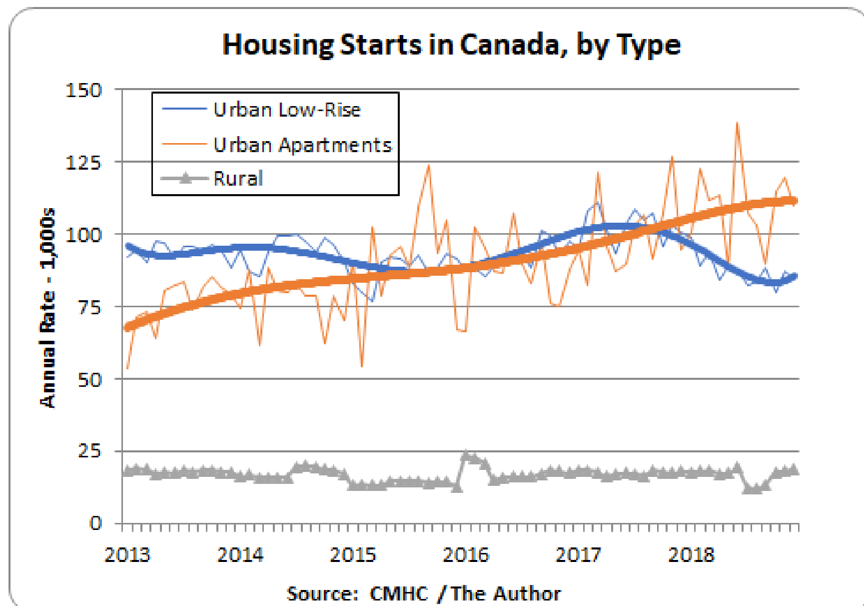
September 2018. According to the Bank of Canada data, the actual growth rate was 3.5%; the actual growth rate was 2.4 percentage points below the predicted amount.

It might be that the growth shortfall was due to an increase in down payments that reduced mortgage requirements. However, data from the 2018 consumer survey indicates that for purchases made in 2018 the average down payment (for all purchases) was 26%, essentially equal to the figure for 2017 purchases (27%). Moreover, data from CMHC Transactional Homeowner Mortgage Insurance shows an average loan-to-value ratio of 82.3% for the first three quarters of 2018. This is virtually equal to the 2017 figure (82.4%).[15] Therefore, it appears that changes in down payments have not caused the shortfall of actual versus expected mortgage growth.

These events provide a reminder that forecasts can be wrong, and that the greatest forecast errors tend to occur at turning points (which we are experiencing during 2018 and 2019).

Looking Forward

Housing completions are, of course, the result of housing starts that occurred previously. During 2018, starts of low-rise dwellings (single-detached, semi-detached, and town homes in urban areas slowed significantly, as did starts in rural areas. In the chart to the right, the trend line for urban low-rise starts is now about 20% lower compared to a year ago, and is now at the lowest level of the past six years.



On the other hand, starts of apartments increased during the year, continuing a multi-year expansion. The trend line has recently begun to flatten, hinting that apartment starts are close to a peak, and may fall during 2019.

Housing starts are mostly the result of pre-construction sales. As activity shifts in the resale market, we expect that pre-construction sales of new dwellings will change in the same direction.

[15] The CMHC report can be found at the link below (the pertinent data in on tab 7): https://eppdscrmssa01.blob.core.windows.net/cmhcprodcontainer/sf/project/cmhc/xls/en/mortgage-loan-insurance-business-supplement-september-2018.xlsx?sv=2017-07-29&ss=b&srt=sco&sp=r&se=2019-05-09T06:10:51Z&st=2018-03-11T22:10:51Z&spr=https,http&sig=0Ketq0sPGtnokWOe66BpqguDljVgBRH9wLOCg8HfE3w%3D

Pre-construction sales are converted into actual construction relatively quickly for low-rises, but there are longer delays for apartments. Thus, starts of new low-rise homes have begun to follow the reduction of resale activity, but there is no sign yet of a downturn for apartment starts.

It also takes some time for changes in housing starts to be converted into changes for housing completions. CMHC data indicates that the average length of the construction period is nine months for single-detached homes, eight months for semi-detached, 11 months for town homes, and 20 months for apartments. Consequently, data on housing starts that have already occurred give us a strong indication of volumes of housing completions that we should expect for 2019. Working with data that we already have, and making assumptions about future starts, the author projects that housing completions will total just over 200,000 in 2019, which will actually be an increase compared to 2018. This will occur because of the very high numbers for apartment starts during 2017 and 2018. But, since activity is shifting to lower-valued dwellings, in SFD equivalent terms completions will fall by about 6,000 units in 2019. This will tend to reduce the growth rate for mortgage credit, by a small amount.

Looking at resale activity, the most recent forecasts from the Canadian Real Estate Association suggest that the dollar volume will rise by 1.2% in 2019. This will tend to slightly raise the growth rate for mortgage credit.

Looking at mortgage interest rates, the analysis considers the average rate over the past five years. As of 2019, the 5-year average is assumed to be 3.12% (typical "special offer" rates for 5-year fixed rate mortgages), which will be a small rise from the figure of 3.02% for 2018. This will tend to slightly raise the growth rate for mortgage credit.

Forecast of Mortgage Activity

Considering these three factors in combination, the forecasting model suggests that residential mortgage credit will expand by 5.9% in 2019 (which is identical to the rate expected by the model for 2018). The expectation for sustained rapid growth rate is mainly due to a continued high volume of housing completions during 2019. During 2020 and beyond, falling volumes of completions will contribute to reduced mortgage growth.

However, as in 2018, the actual growth rate is likely to be considerably lower than is expected by a forecasting model: the reported growth rate in 2019 may be in the area of 3-4%.

A Changing Risk Profile in the Mortgage Market?

There has recently been commentary that the mortgage stress tests are reducing risks in the mortgage market, because there has been a substantial reduction in the share of new mortgages (by federally-regulated financial institutions) that have elevated loan-to-income ratios (the chosen threshold is 450%). However, the commentary is giving much less attention to mortgage lending by lenders that are not federally-regulated.

A recent report from the Bank of Canada[16] concluded that "the overall riskiness of new mortgages has therefore decreased because the proportion of risky borrowers has declined…". The research for this conclusion is illustrated in five charts, each of which uses data from federally-regulated lenders only.

A sixth chart provided estimates of shares of mortgage originations for five types of lender, for Toronto. These estimates indicate that for the "big six banks", the share fell sharply, from 77.5% to 72.6% a year earlier. Small rises were estimated for "smaller banks" (8.6% to 9%), for "credit unions" (2% to 2.6%), and for "mortgage finance companies" (6.2% to 7%). For the final category – "private lenders" – the share rose by a large amount, from 5.9% to 8.7%.

This data shows that there has been a shift in mortgage lending away from federally-regulated lenders to non-federally-regulated lenders. The risk characteristics of those mortgage loans has not been assessed.

This data is for a limited geographic area, and it is not necessarily representative of trends for the entire country.

The data is for the second quarter of 2018. It is quite possible that the shift towards private lenders has expanded. The shift is largely due to a regulatory change, the stress tests mandated by guideline B-20 of the Office of the Superintendent of Financial Institutions ("OSFI"), which took effect during the first quarter.

There are important implications from this data:

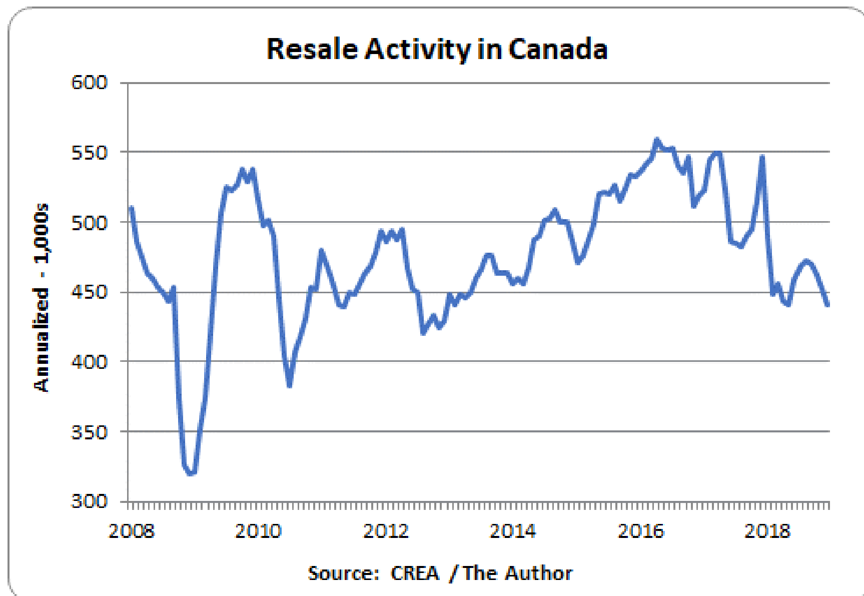
- OSFI's B-20 Guideline is intended to reduce risks within federally-regulated financial institutions. Given the data on market shares (and other data that has been published by the Bank of Canada on trends in the mortgage market), it appears that this is being achieved – in the narrow sense that they are making fewer loans with high loan-to-income ratios.

[16] "The Impact of Recent Policy Changes on the Canadian Mortgage Market": https://www.bankofcanada.ca/2018/11/staff-analytical-note-2018-35/

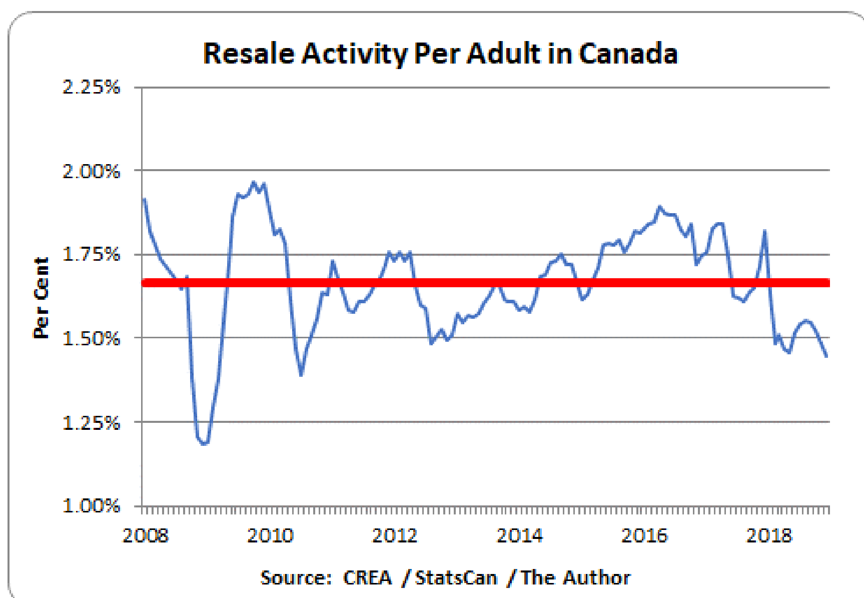
- The regulations are pushing increasing numbers of mortgage borrowers towards non-federally-regulated lenders. Those lending activities may very well be higher risk, thereby adding to risks within the total financial system.
- These mortgages from alternative lenders are very likely at higher interest rates than would be obtained from regulated lenders. This causes the borrowers to be under greater financial pressures than would otherwise be the case, and this adds to overall risks within the economy and the financial system.
- Use of alternative lenders creates risks for the borrowers when the terms expire (renewal dates are reached); the lenders may be unable or unwilling to fund renewals. If that happens, the borrowers might be able to transfer their mortgages to other alternative lenders, but possibly at even higher interest rates.
- The current regulatory environment and the changed rules for mortgage insurance have made it more difficult for mainstream lenders to accept transfers, even when the borrowers can demonstrate that they have the capacity to meet their obligations. In the past, there were usually expectations that mortgage borrowers would rely on alternative lenders for short periods of time (typically one or two years) until they could establish a credit history that allowed them to transfer to a mainstream lender (at a considerably lower interest rate). That outcome is becoming increasingly difficult and some of these borrowers may find themselves saddled with high interest rates for much longer than they expected.
- The expansion of alternative mortgage lending is certainly an added risk for the entire financial system. If it adds to risks for the broader economy, then OSFI's B-20 Guideline indirectly adds to risks for the lenders that it regulates.
- It is generally agreed that since private lending is a small minority of total indebtedness (a percentage share in the low single digits), it does not pose a substantial risk to the economy. This research report is certainly not predicting an economic crisis as a result of alternative lending but it is pointing out that increasing numbers of borrowers are utilizing these lenders, and that many of them will do so for longer than they had expected. The total amounts of mortgage principal accounted for by these lenders could very well escalate, raising the overall risks to the economy financial system.
- If these lenders are unable to raise and retain the capital required, then an even worse outcome is possible: mortgage defaults could occur due to no fault of the borrowers, because lenders could not provide funding on reasonable terms.

6.0 Housing Market Trends

Trends in the Resale Market

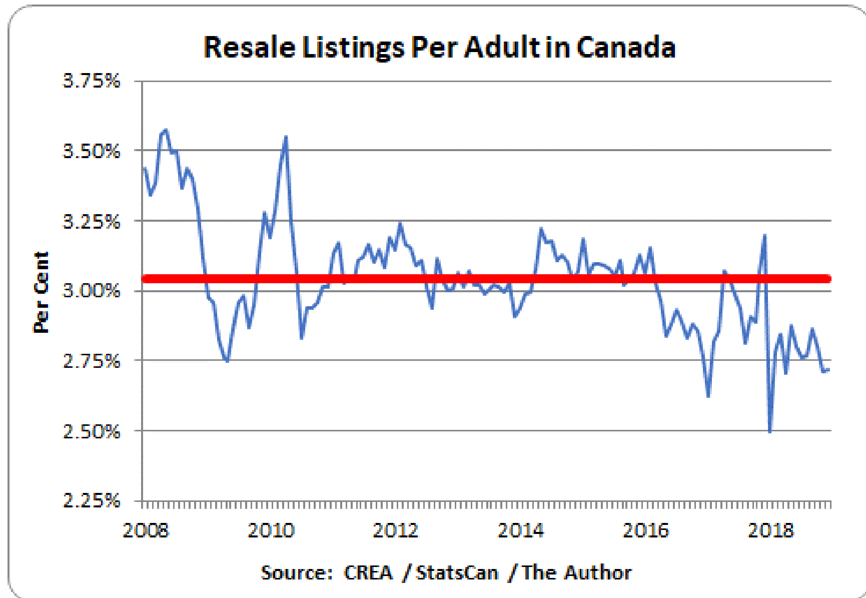


Resale housing activity in Canada fell substantially during 2018. The Canadian Real Estate Association ("CREA") reports that residential sales totaled 458,442, which was 11% lower than in 2017, and 15% below the all-time record set in 2016. Rates of activity varied during the year: initially, sales figures were quite low, as there had been a strong surge late in 2017 and early 2018, as buyers rushed to avoid the mortgage stress test that was mandated by the Office of the Superintendent of Financial Institutions ("OSFI"). Sales were reduced during February to May. As the period of payback ended, it appeared that sales were improving. Sales achieved a "local peak" in August. There has been a further setback: the sales rate for December (441,000) was 6% lower than in August.



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, the average sales rate was 1.51%, which was 9%

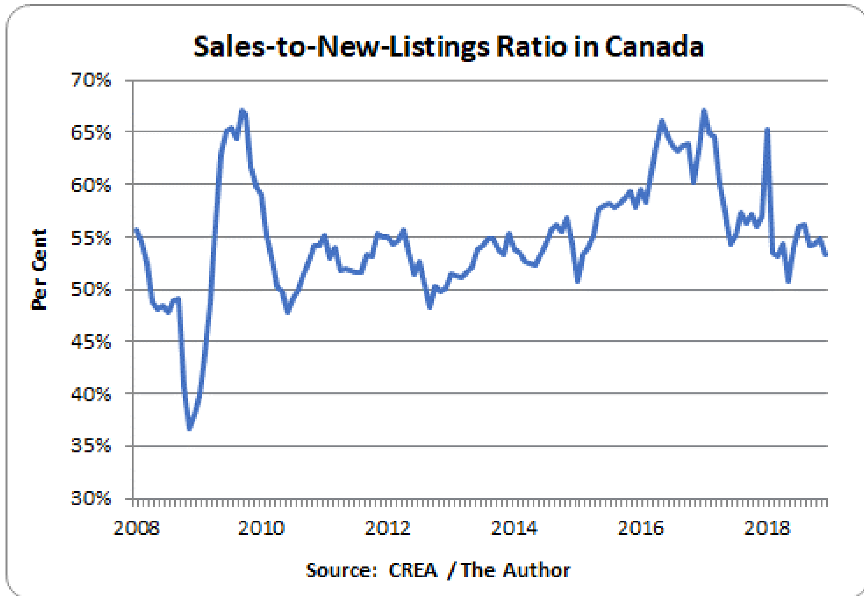
below the long-term average (1.67%, which is shown by the flat red line[17]). By December, the sales rate had fallen further, to just 1.45%, which is 13% below the long-term average.



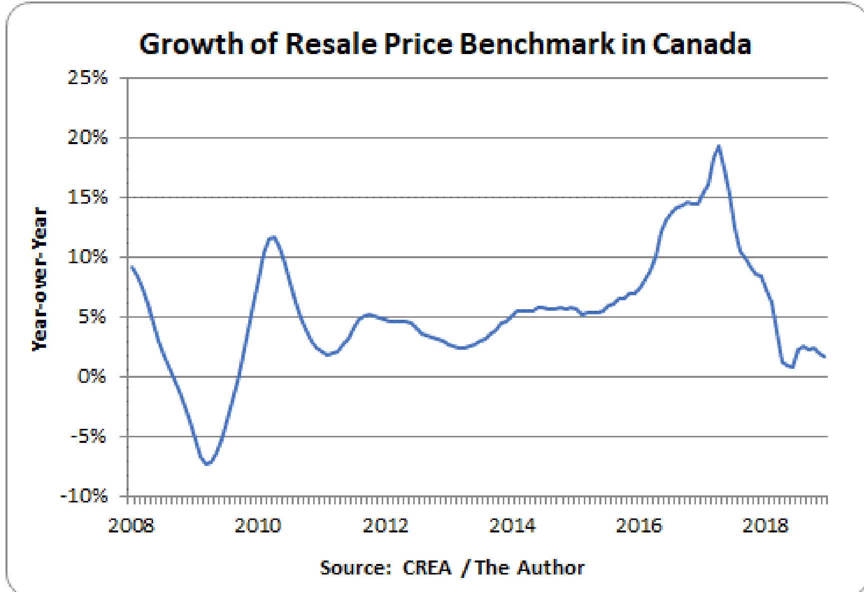
Flows of new listings into the resale housing market have also been reduced. Expressed as listings per adult, the rate of inflows of new listings is now 11% below average. Some analysts see this as evidence that potential sellers are waiting: perhaps they are feeling uncertain about the market. When they get over that uncertainty, they will list their homes (and then most of them will buy another property). In this view, "pent-up demand" is developing, which will cause sales to return to normal levels before much longer. However, it is also possible that listings have dropped because potential move-up buyers are finding that they won't be able to buy the homes they would like to buy, due to the mortgage stress tests and increased interest rates. Therefore, there is no point in selling their current home. In this alternative view, demand isn't "pent-up", it has been repressed, and that repression could result in unusually low sales volumes for a prolonged period; that is this author's view.

[17] 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 1.70% versus the rate of 1.67% shown in this chart.

With reduced sales and listings, the sales-to-new-listings-ratio ("SNLR") has fallen, from elevated levels seen during 2016 until early 2017. The average SNLR for 2018 is equal to the long-term average of 55%. The figure for December (53%) is slightly below average. At its recent levels, the SNLR indicates that for Canada overall, the resale market is "in balance".

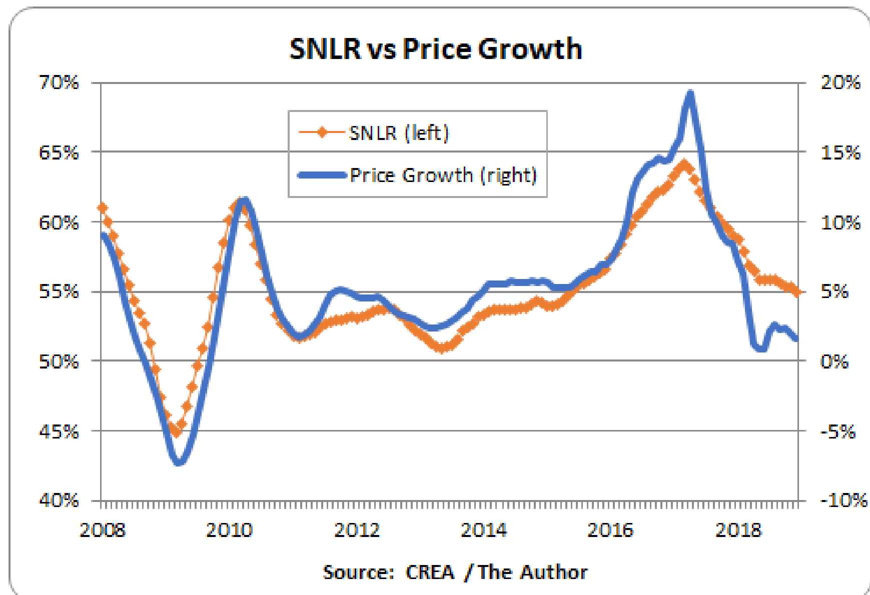


Evolving housing market conditions have resulted in wide swings in the rates of house price growth. Using data from CREA's "Composite Benchmark", prices have increased by 75% during the past decade, for an average of 5.8% per year. But, during the past year (up to December), the increase was only 1.6%.



Comments are often 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 average 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[18]. During the past decade, the actual (monthly) ratios have been within the 40-60% range most of the time (97 out of 120 months, or 81%). Yet, as can be seen in this chart, it has been rare for actual price growth to be close to the 2% level. In Canada, it has been quite rare historically for the housing market to be "in balance". It seems to be balanced at present, but that is quite unusual.



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 statistical analysis indicates that prices can be expected to rise by 2% per year when the SNLR is 52.3%. The analysis also indicates that at a 40% SNLR, prices would be expected to fall by 10.9% per year. At a 60% SNLR, the expected change is 10.8% growth. Neither of those situations should be considered "balanced".

If we want to identify a range for a balanced market, we could 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 50.4%
- Prices are expected to rise by 4% at a SNLR of 54.1%
- 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. For Alberta (as an example) the estimated threshold is 55.5%, with a range of 50% to 59%. For Nova Scotia, the threshold is estimated at 48.4%, with a range of 44% to 53%.
- 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

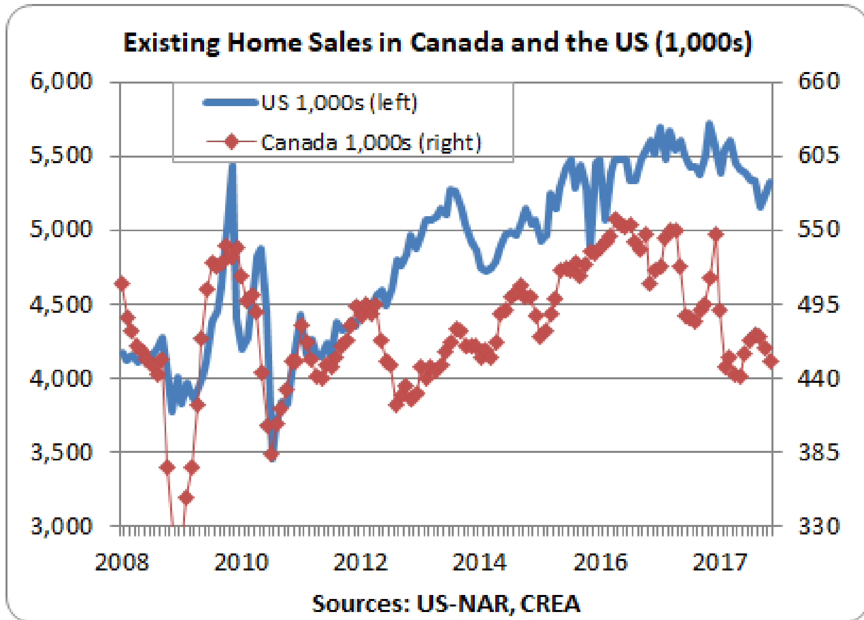
[18] In this chart, the SNLR is shown as 12-month moving averages, to reflect that price growth during each year-over-year period should be the result of the SNLRs that existed during that same period.

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 (prices have recently "undershot"). Combining those two periods, pricing is now about where it should be, given what has happened to SNLRs.

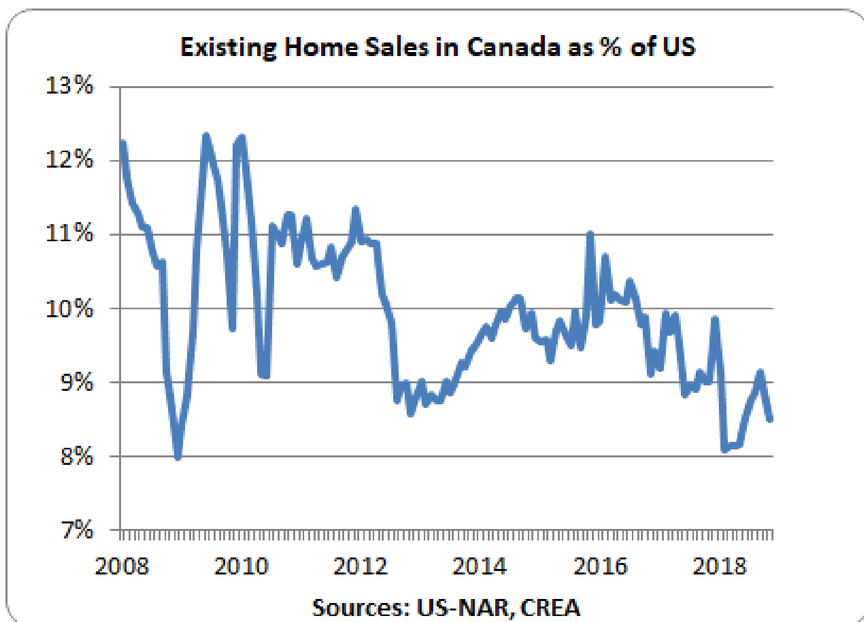
It has been noticed that Canada is not alone in experiencing a housing market slowdown. This gives us another potential alternative explanation – that recent weakness in Canadian housing activity is due to forces that are operating throughout the world, rather than to the mortgage stress tests.

As a quick check of that possible theory, Canadian resale activity is compared to the U.S., in two charts.

The population of Canada is equal to roughly 11% of the U.S. figures. Therefore, in this chart, resale activity in Canada is scaled at 11% of the U.S. figures. This data shows that during 2008 until mid-2012, sales in Canada and the U.S. followed very similar (wild) changes. After mid-2012, the relationship between the Canada and U.S. data broke down. This can be attributed to a significant change in Canadian mortgage insurance policies (the elimination of amortization periods longer than 25 years) that had severe and sustained consequences for homebuying. This was discussed at much greater length in the fall 2017 edition of this report.



The second chart looks at resale activity in Canada as a percentage of U.S. 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, at an average of 9.4% for mid-2012 to the end of 2018. Furthermore, the share has dropped during the past two years:



- During 2016, the share was 10.0%
- For 2017, the share was 9.3% (the reduction can be attributed at least in part to the stress test for insured mortgages, which took effect late in 2016)

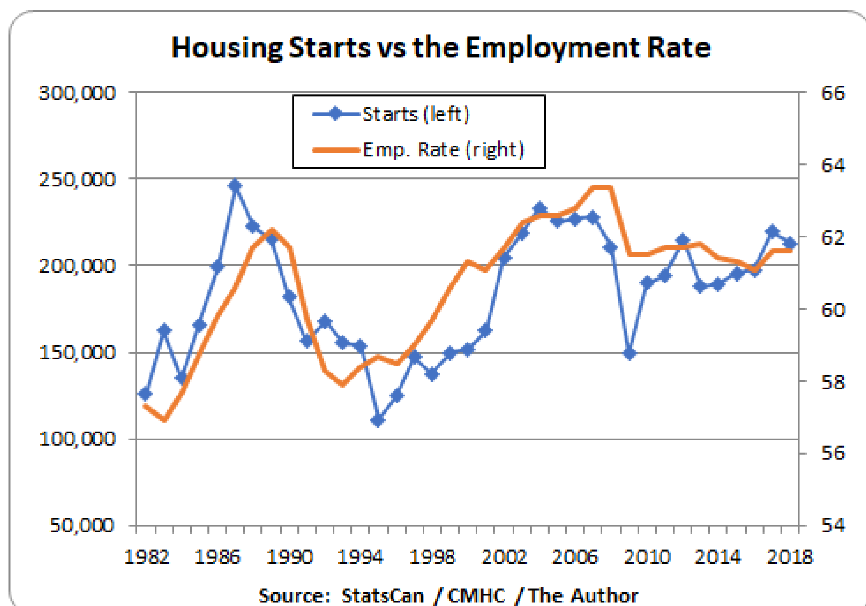
- For 2018, the share fell again, to 8.6% (due to the additional negative effect of the OSFI-mandated stress test for uninsured mortgages)

Economic trends in Canada and the U.S. 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

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.

The chart to the right illustrates that housing starts are closely related to the employment situation (as measured by the employment-to-population ratio). During the past decade, the employment rate has been lower than it was before the recession and likewise housing starts have been lower than before the recession. Yet, the employment rate is still relatively high in historic terms and so are housing starts. This has supported a relatively high volume of housing completions, which has had consequences for growth of mortgage indebtedness.



Housing starts generally result from pre-construction sales that occurred earlier, and therefore housing starts are slower to react to changing conditions. Recent data indicates that housing starts are beginning to follow the downturn in the resale market. But, actual completions for 2019 will be largely determined by starts that have already occurred, resulting in little change in the volume of completions during 2019.

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, as well as data on population from Statistics Canada and housing starts from Canada Mortgage and Housing Corporation. The analysis covers January 2008 to December 2018. For each province, six 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, and
- Housing starts (expressed as seasonally-adjusted annualized rates, in 1,000s)

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.

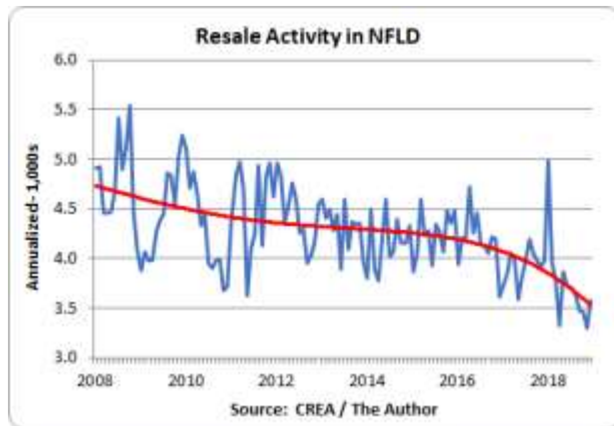
Housing market trends have deteriorated:

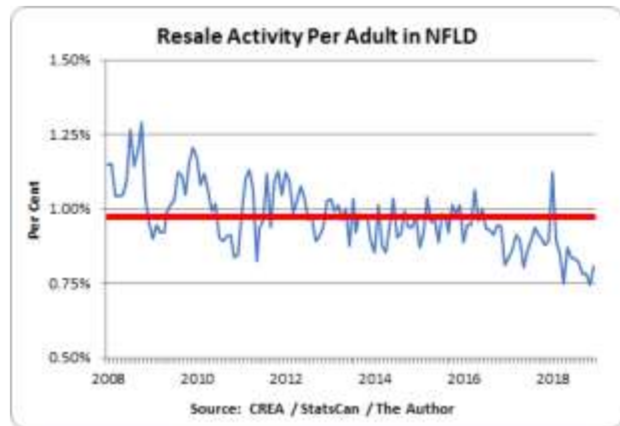
- In six out of 10 provinces, resale market trends have clearly turned down, and often sharply. In others (PEI, New Brunswick, and Nova Scotia), the deterioration takes the form of interruptions of growth trends. Quebec appears to be the only province experiencing continued growth of resale activity.
- Sales-to-new-listings ratios have shifted downwards, with the result that rates of house price growth have slowed.
- Housing starts tend to follow behind resale markets. In five of the provinces, starts are clearly slowing. In three provinces (Nova Scotia, Quebec, and Manitoba) it appears that growth trends have ended. Starts are still trending upwards in PEI and New Brunswick.

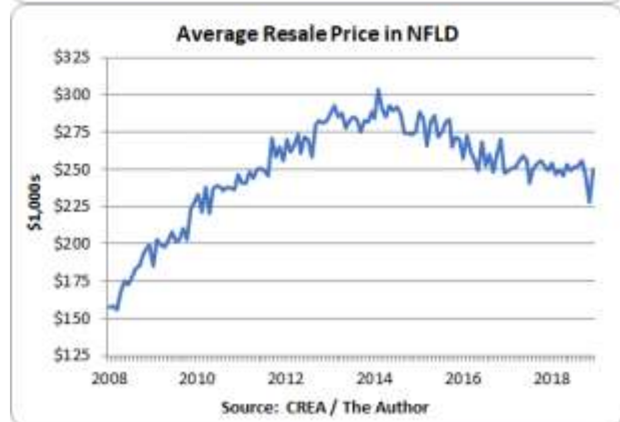
Sales-to-new-listings ratios are far below the balanced market thresholds in three of the provinces (Newfoundland and Labrador, Saskatchewan, and Alberta). So far, this has resulted in only gradual erosion of prices, because house prices tend to be "sticky downwards": sellers resist dropping their price expectations, and will often withdraw from the market rather than reduce their price. (The SNLRs are falling elsewhere and are getting closer to the balanced market thresholds in Ontario, Manitoba, and British Columbia, and therefore prices are flattening.) That "sticky downwardness" for house prices can dissolve spontaneously, resulting in sharper drops. In a modern economy, consumer confidence (and therefore economic performance) is highly affected by growth of housing prices (for better and for worse). Therefore, the risks related to house prices are also risks for the broader economy. By dampening housing activity and house price growth, federal government policies related to mortgages are adding to negative risks for the broader economy.

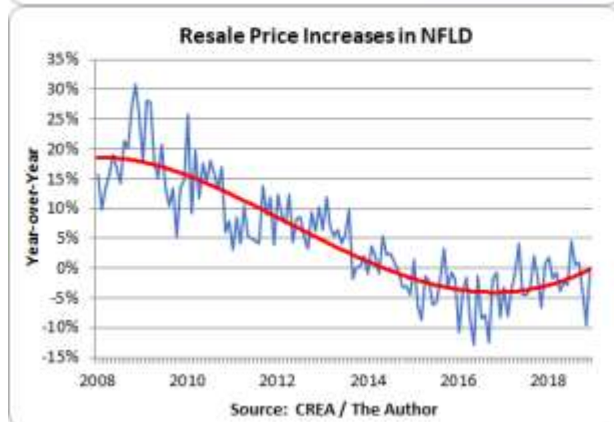
Newfoundland and Labrador

Resale activity weakened further during 2018, due to the combination of the mortgage stress tests, a weakened provincial economy, and the increase in mortgage interest rates. The SNLR is increasingly below the province's balanced market threshold (which is estimated at 42%). Due to volatile movements in the average price, there is uncertainty about the recent price trend. The data suggests that prices are not falling at present, but given the very low SNLR there is a risk of price drops. Housing starts have weakened considerably, and during 2018 began to follow the further downtrend for resales.



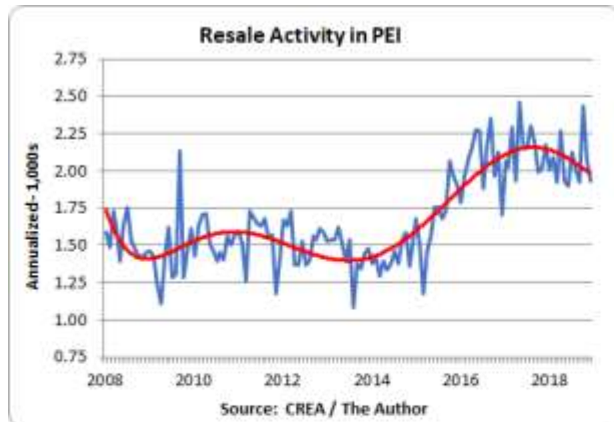


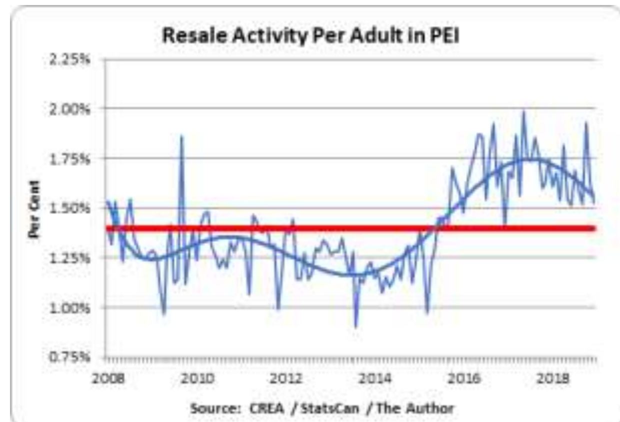




Prince Edward Island

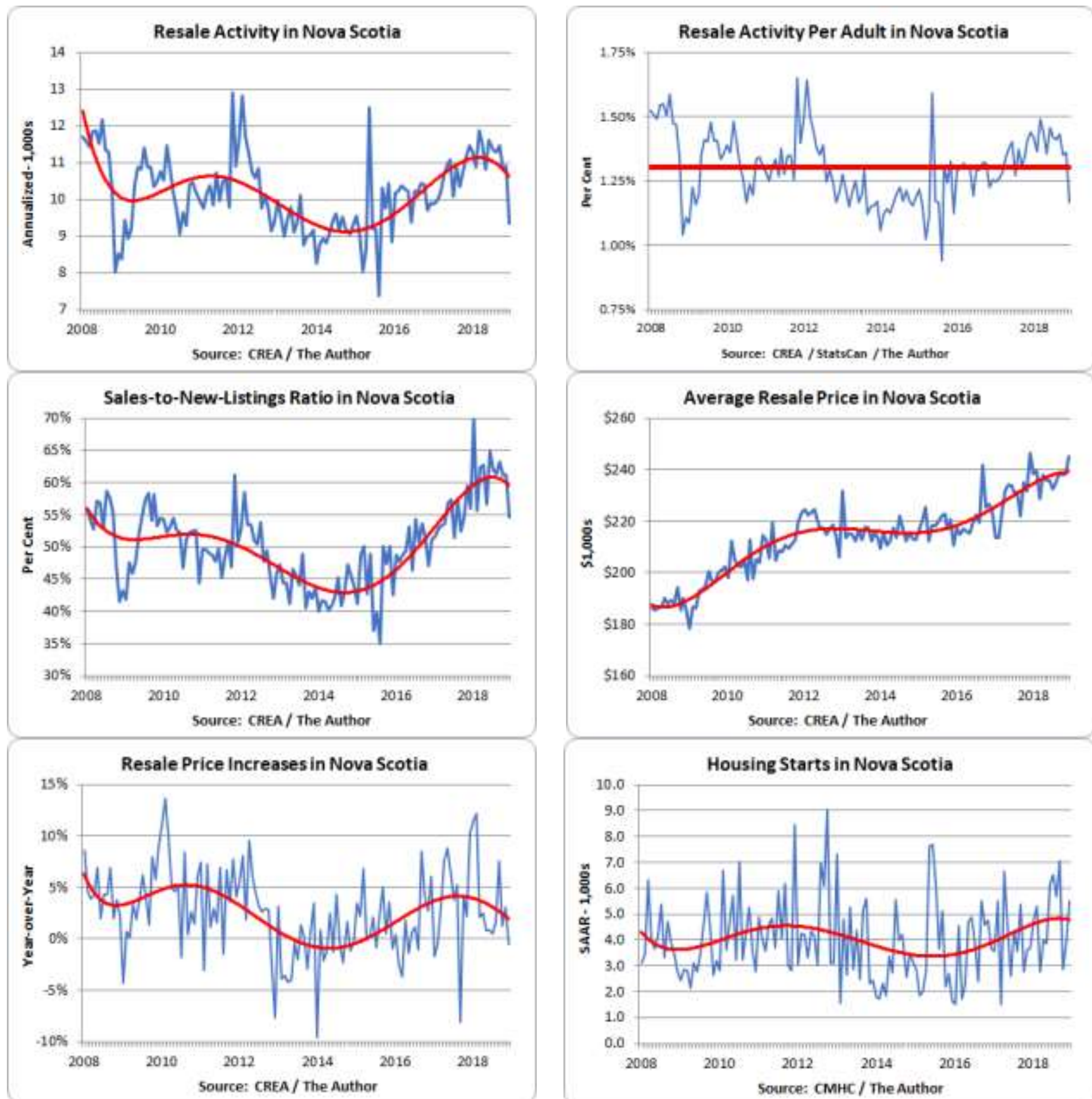
The provincial housing market has slowed, but remains quite strong in historic terms. It isn't possible to estimate the province's threshold for a balanced market using statistical analysis. That said, it is clear that the high SNLR is far into "sellers' market" territory, which has resulted in rapid price growth. Price growth has recently tapered to some degree. Housing starts have responded to the very strong market conditions, although there is, of course, uncertainty about the recent trend.





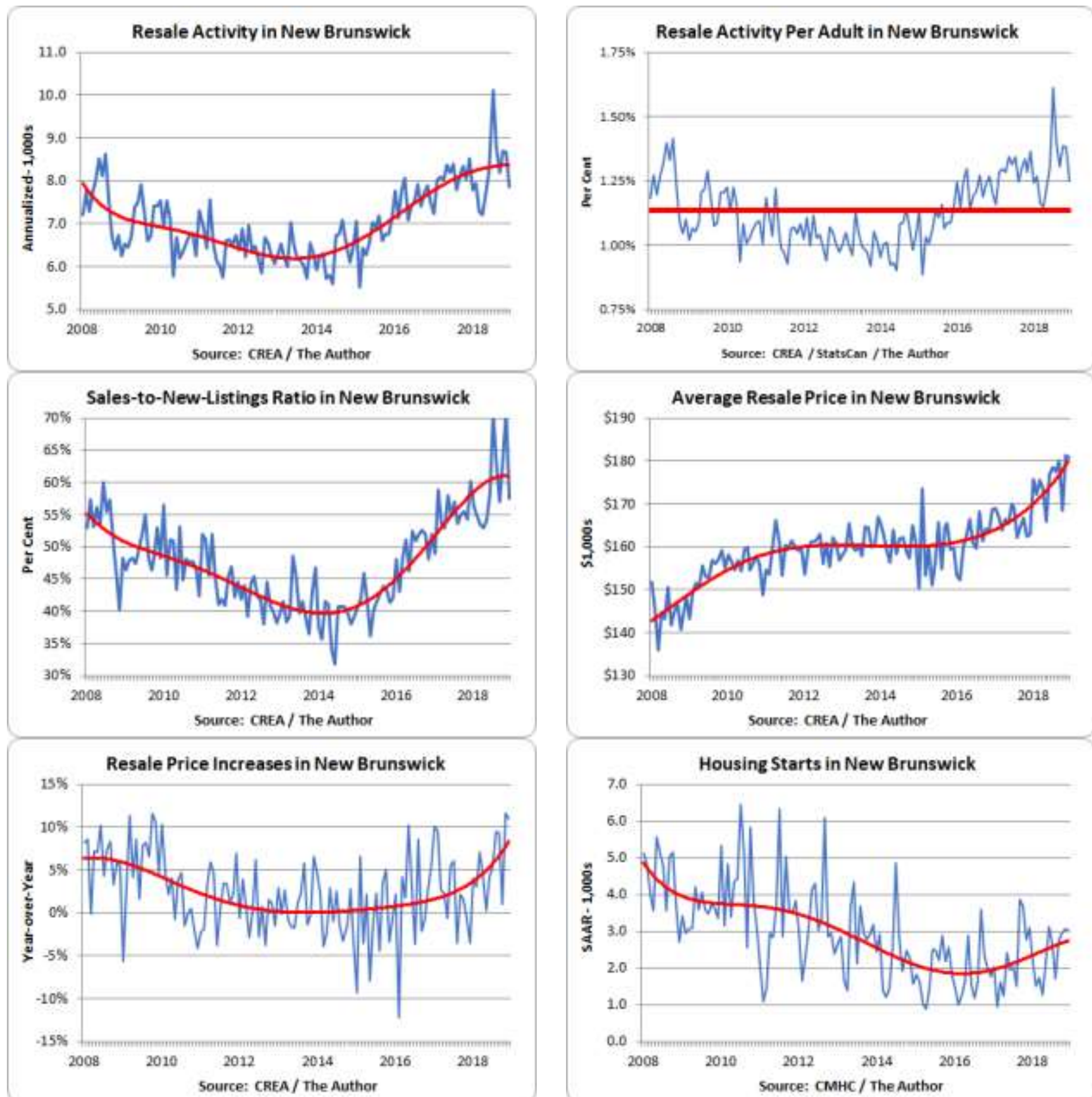
Nova Scotia

A growth phase has ended in the Nova Scotia housing market, but apart from unusually low resales in December, it appears that activity remains quite strong. That said, the data hints that a downward turn might be developing. The province's SNLR remains above the balanced market threshold (which is estimated at 48%), resulting in continued moderate price growth. Housing starts remain at a high level, following the strength that has emanated from the resale sector.



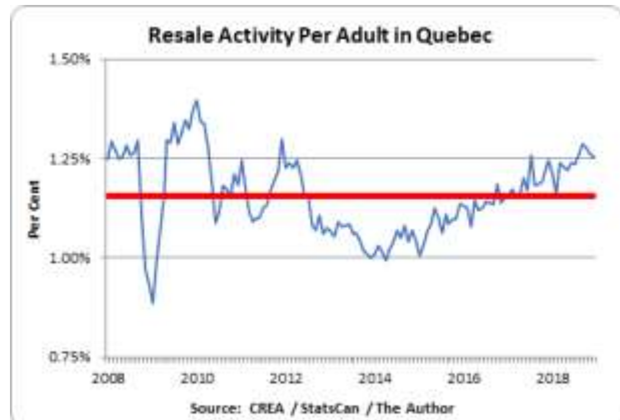
New Brunswick,

Sales activity remains at a quite high level, although it appears that the growth phase may be at or close to an end. The SNLR is now far above the balanced market threshold (which is estimated at 44%), leading to rapid growth of the average price (this follows a lengthy period of flat prices). Housing starts are improving in response to the tight resale market, but are still low in historic terms. Some further rise of the starts trend is likely.



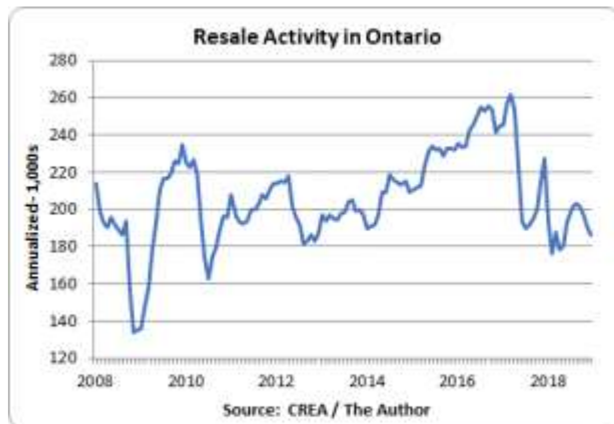
Quebec

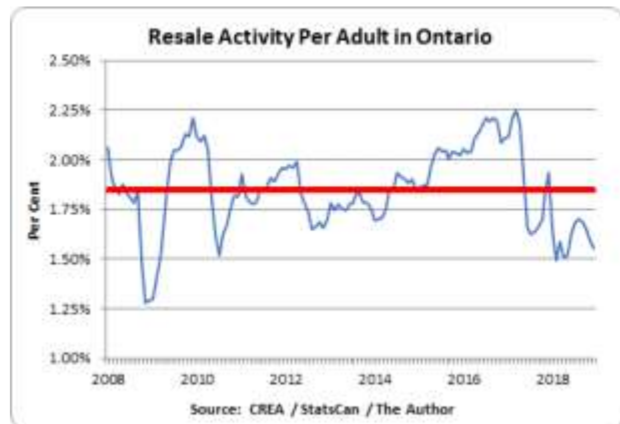
Resale activity has improved steadily during the past five years, although data for 2018 has hinted that the pace of growth may be tapering. The balanced market SNLR threshold is estimated at just under 40%, and the actual rate has been far above that level for some time. Recent data points to a stabilization at a very high level. Volatile data makes it impossible to generate a reliable trend for price growth. It appears that prices are increasing at about 5% per year. The recovery for housing starts may also be tapering.

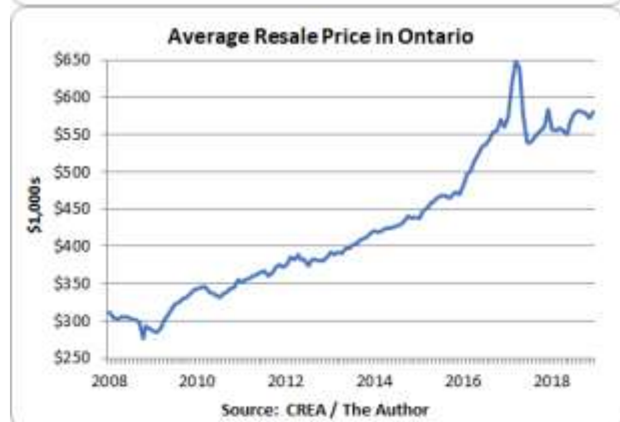


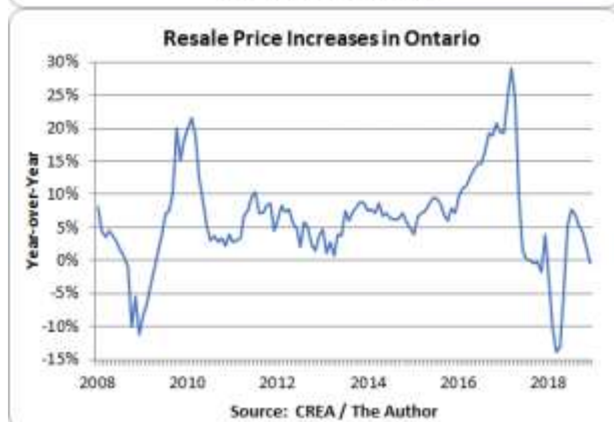
Ontario,

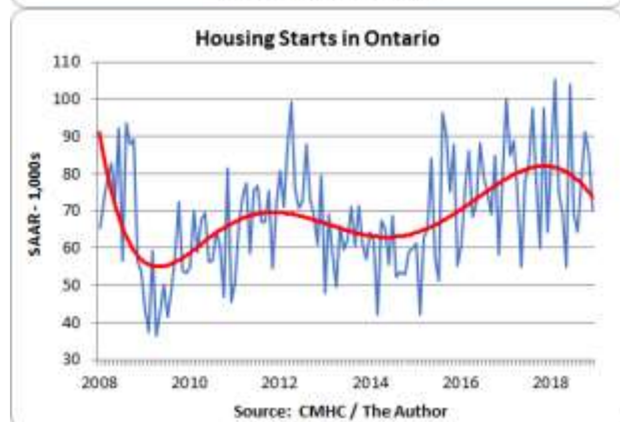
Ontario's resale activity has fallen sharply and is now quite weak in historic terms. However, the SNLR remains above the balanced market level, which is estimated at 50%. The sharp change in the SNLR has resulted in a similarly sharp shift in price changes. Recent data suggests that prices are roughly flat. Housing starts are now following the downturn in the resale market, and further reductions are likely.





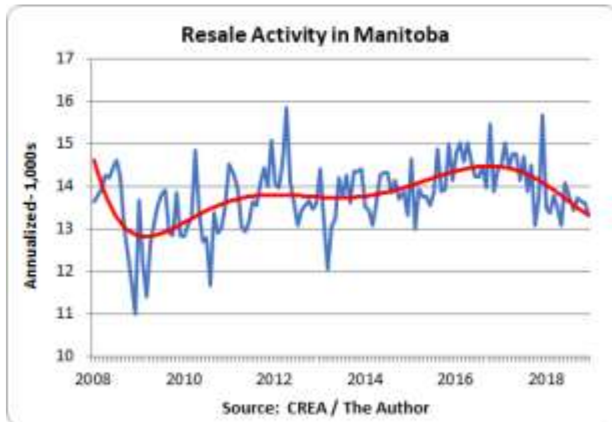


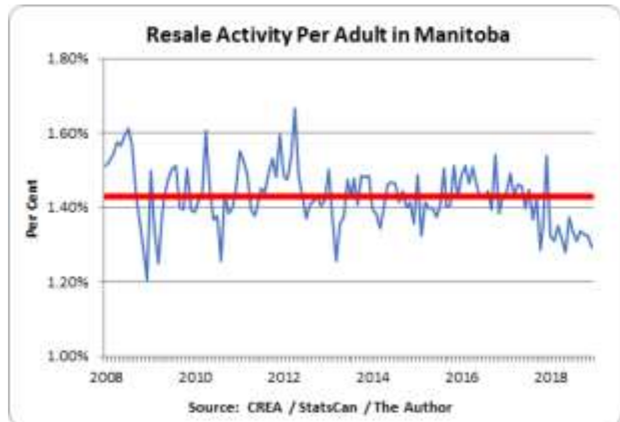


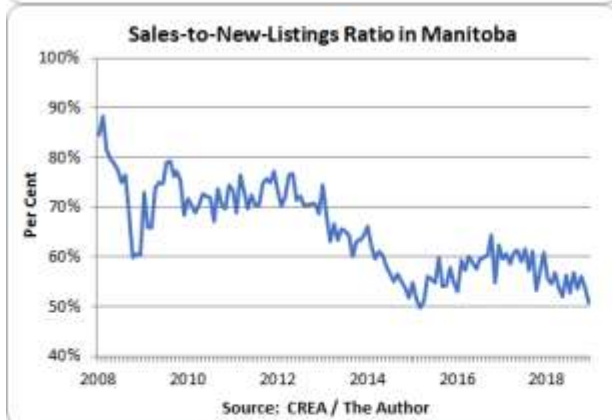


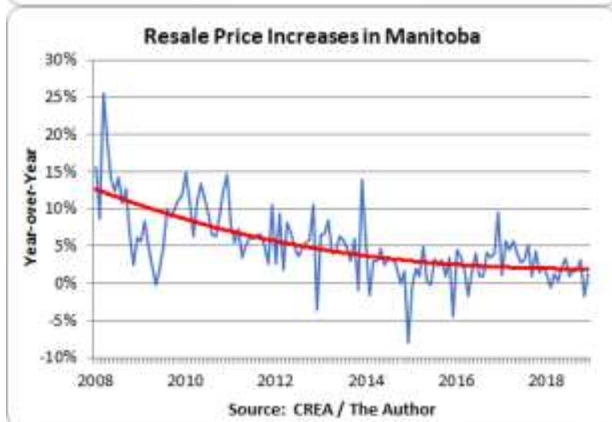
Manitoba,

Historically, resale activity has been quite stable in Manitoba, but there was clearly a reduction during 2018. Slower sales have caused the SNLR to fall to slightly below its balanced market level (which is estimated at 58%). The result is that prices are now rising at a gradual rate (in the area of 1%). Housing starts increased during 2017 and 2018 (in response to prior encouraging signals from the resale market). Recent data hints that starts are at or close to a downward turn.



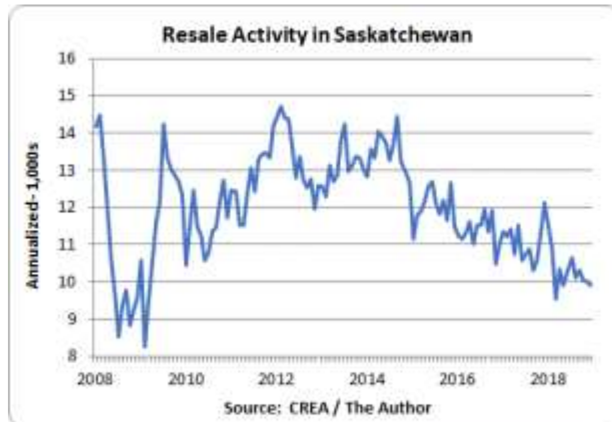


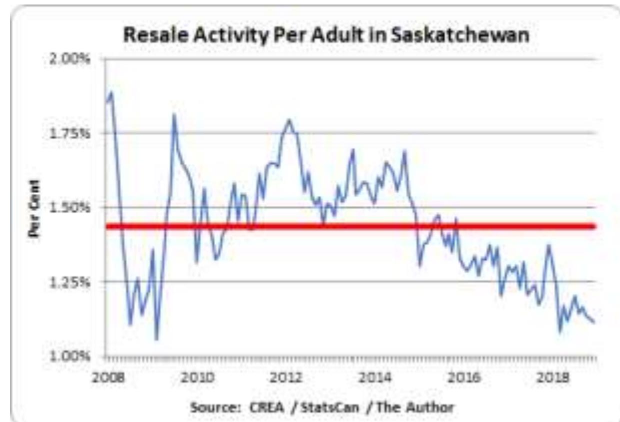


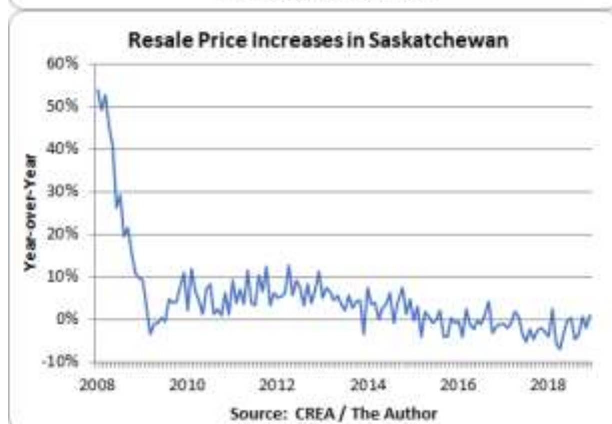


Saskatchewan

Resale activity in Saskatchewan continues to trend downwards, as the negative effects of the mortgage stress tests and higher interest rates have been added to the effects of a weakened economy. The SNLR is far below the balanced market threshold (estimated at 54%). Prices have eroded slightly, reflecting that prices are often "sticky downwards". Housing starts have fallen sharply.

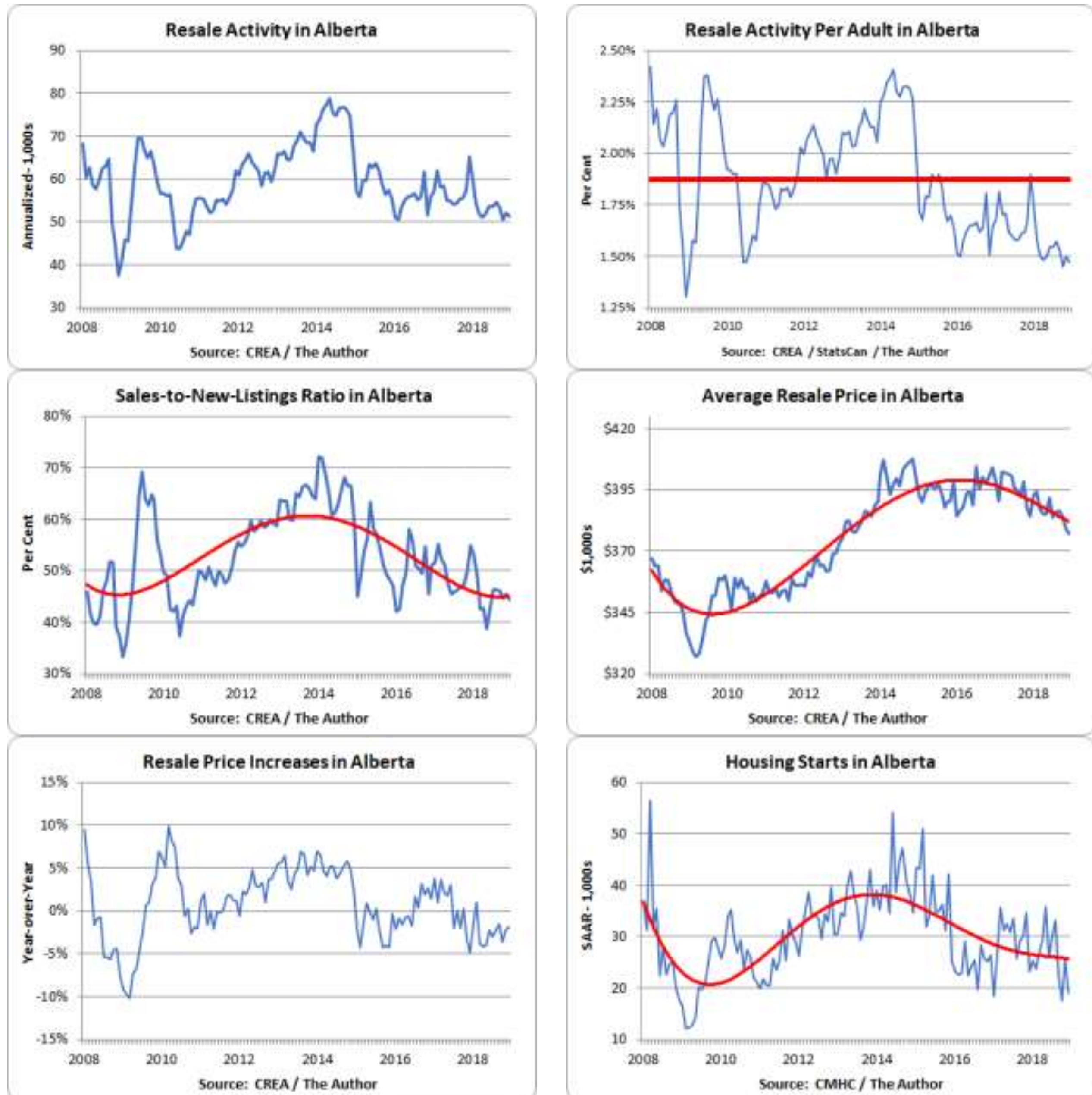






Alberta

Resale activity showed tentative signs of improvement during 2016 and 2017, but the mortgage stress tests and higher interest rates have brought a further setback. Sales are now very weak in historic terms. The SNLR is now far below the balanced market threshold, which is estimated at 56%. Prices are now eroding, by 2-3% per year at present. Starts are following trends from the resale market and recent data hints that a further downturn might be developing.



British Columbia

Resale activity has slowed sharply in BC. In addition to the usual factors, provincial policies that are intended to reduce buying by non-residents and investors are having substantial effects. The SNLR has fallen sharply, to about the balanced market threshold of 47%. The average price is highly volatile, due to changes in the locations and types of homes sold. Looking at CREA's House Price Indexes, it appears that prices are close to flat overall, but with large variations across the province. Following the deteriorating trends for resales, starts are now also falling, with more drops to come.