MORTGAGE
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# The False Binary

## The government needs to reframe its discussions about the mortgage stress tests

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*Prepared by*

Will Dunning, Chief Economist

## Introduction

Since late 2016, all insured mortgages in Canada must be tested at an interest rate that is essentially two percentage points above the actual contracted rates. Since the start of 2018, all uninsured mortgages issued by federally-regulated lenders must also be stress tested (under a regulation known as "B-20"). This combination of policies means that a large majority of new residential mortgages must be stress tested (perhaps 80%).

Representatives of the federal government have repeatedly assured us that the mortgage stress tests are achieving exactly what they are intended to do: reduce mortgage borrowing (particularly the riskiest borrowing), and they have clearly and repeatedly signaled that they see no need for any changes.

Some voices from outside of government (especially from business people in mortgage lending, real estate sales, home construction, and their industry associations) have been saying that the stress tests are too stringent and the impacts in the marketplace are too severe (unnecessarily preventing Canadians from achieving their homeownership goals, which is harmful to their long-term best interest, and that this undue suppression of housing activity will be harmful to the health of the Canadian economy).

Government officials are trying to portray the situation as a binary choice, between continuation of these correct policies, versus eliminating the policies and returning to reckless behaviour and an escalation of related risks.

Contrary to the false binary that the government is trying to create, no serious person or organization is suggesting that the stress tests be abandoned. They are proposing modifications that could be made to the policies, in order to reduce the harm and the risks.

The most important comment is that the stress tests do not consider income growth, which makes them unduly onerous. This comment has been made by a few analysts and several associations (national, provincial, and local) that represent mortgage lending, real estate sales, and home building. The government has failed to publicly respond substantively to those comments.

Within the comments from government officials, there is also sometimes a flavour that the people offering critical opinions represent special interests and are therefore not to be trusted. For example, in an op-ed article published in the Toronto Star on March 5, 2019, the CEO of CMHC referred to "the false promise of some people in the real estate business, who aren't thinking beyond the next commission cheque".

This research paper has three main objectives:

- To highlight some opinions from economists about the stress test, about the impacts, and about what should be done. None of those opinions are calling for elimination of the stress tests.
- Secondly, to reiterate the concerns I have about the design flaw of the stress tests. My comments echo a recommendation I have made - that to take account of future growth of borrowers' incomes, the stress tests should be done at 0.75 percentage points above the actual contracted interest rates. Other, more prominent, voices have made similar comments and recommendations, to which the government has not publicly responded in any substantive way.
- Thirdly, to discuss the unfolding adverse economic effects that are just barely starting to emerge, and which ultimately may be much more substantive than the government expects.

This report is mostly concerned with the impacts of the stress tests on housing activity and the subsequent economic consequences. A brief section at the end also discusses the impacts of a requirement for stress testing of mortgages that are transferred between lenders.

By pretending that the criticisms are about a binary choice (stress test versus no stress test) the government and its representatives are refusing to discuss the real concerns that exist, and therefore, the real (and still-emerging) problems are not getting addressed.

Talking about "special interests":

- Yes, builders, real estate professionals, and lenders have stakes in the outcomes. That doesn't mean that they are automatically wrong or that they automatically should be distrusted or ignored. They might be providing useful information, and their comments might be well-intentioned.
- The government's representatives are also a "special interest": they have very large personal stakes in how their actions are viewed and the effects on their own careers. It sometimes happens that governments make mistakes and rather than change policies (which of course means admitting that they made a mistake), they dig-in. Maybe that's what's happening now, in the mortgage and real estate file.

### *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.

### *Disclaimer*

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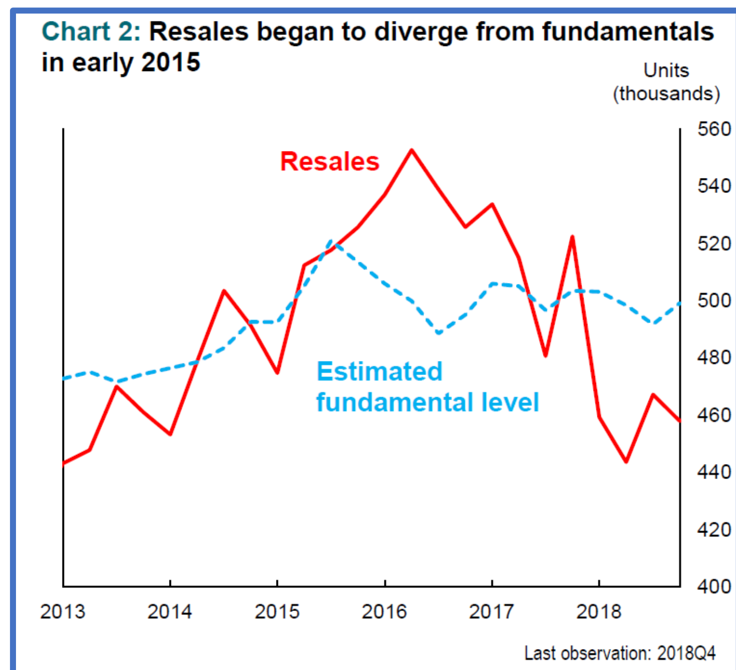
# The Impacts of Stress Testing on Housing Activity and the Broader Economy

*Bank of Canada*

A Staff Analytical Note from the Bank of Canada provides a great starting point for this discussion.[1]

Attempting to summarize that research:

- Resale activity was very strong during 2015 and 2016, but then fell substantially, and in the first quarter of 2019 was 20% below the peak level.
- The fundamental factors that influenced activity included a negative effect from a deterioration of affordability and a positive effect from the employment situation. These two factors were roughly offsetting. As is shown in this chart (taken from the BoC report), at the end of 2018, the "fundamental level" of sales was essentially the same as at the start of 2015.




- The authors attempted to include the effects of the stress tests within the analysis, and estimated that as of the end of 2018, the stress tests caused the fundamental level of sales to be 10,000 less (at an annualized rate) than it would otherwise have been.
- The report argues that the large swings of actual sales (above and then below the fundamental levels) are largely attributable to changes in house price expectations (chiefly in Toronto, Vancouver, and their surrounding areas). Initially, price growth was expected to be very strong but then there was a downshift. In consequence, "extrapolative expectations" caused activity to be above the fundamental levels, and then below. Combining the two periods, the excesses and deficits are approximately off-setting.
- The authors' conclusion is that recent low activity "can be attributed to deteriorating affordability and to a dissipation of previous froth in the market" (or a "payback" of prior excesses). Also, "the direct impact of recent mortgage rule changes, in contrast, is estimated to be relatively small".

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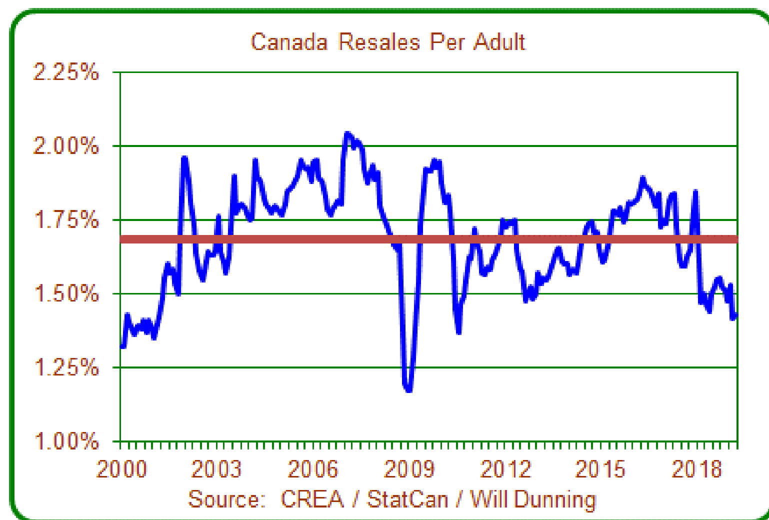
[1] "Disentangling the Factors Driving Housing Resales", which can be found here: https://www.bankofcanada.ca/2019/04/staff-analytical-note-2019-12/

- As I read this report, the impact of the stress tests (10,000 units at the end of 2018) is calculated by an indirect route (through analysis of housing affordability, rather than through analysis of actual market activity). The authors see this as a "pragmatic first step toward distinguishing between the effects of the rule changes and other factors influencing resales in Canada". I agree.
- They also expect that the effects of the rule changes will be "persistent". I agree.

The Bank of Canada report has encouraged me to refine some of my own analysis.

We should expect that resale market activity will trend upwards over time, because the population is growing (and there are more potential buyers) and the inventory of existing housing is expanding (meaning that there are more homes that could potentially be sold). Therefore, one of my favourite housing market statistics is the ratio of sales versus the population of adults. This chart shows the data for 2000 to the present (and the flat line is the average for the entire period). As in the Bank of Canada study, this data shows that there was a period of very strong activity during 2015 until early 2017, which has been followed by persistently below-average activity. Comparing those two periods, the excesses and deficits cancelled each other out about the end of last year. But, the deficit continues, and for the first four months of this year, the sales rate has been 13% below the long-term average.




From this view of the data, I could draw a similar conclusion to the Bank's, that at the national level the downturn is largely attributable to changing expectations. But, there are significant caveats that mean the review is far from being complete:

- The Bank of Canada analysis ends in 2018. If the Bank is correct that fundamental factors were balanced at the end of 2018, and that prior excesses and deficits have now more-or-less cancelled-out, we should expect resale activity to return to a normal level, but that is not occurring (at least not yet, and there is no sign of this developing). On a population-adjusted basis, the current normal level might be in the area of 515,000 resales per year (based on the long-term average rate of sales per adult multiplied by the current population). For the first four months of this year, the sales rate has not begun to recover. The annualized rate is in the area of 450,000, which is 65,000 units (13%) below the expected level. This shortfall can be interpreted as (to some degree) the continuing and substantial consequence of the stress tests.

- Regional variations complicate the picture: some areas currently appear to be showing excesses – e.g. Ottawa and areas within Quebec. This means that many other areas are experiencing very large shortfalls that are being masked by the national data, and therefore in those areas, B-20 might have had substantial negative effects last year (which continue).
- Actual interest rates that can be negotiated in the mortgage market have fallen sharply this year (although lenders' "posted rates" have not followed). As of last December, my estimate of the typical advertised "special offer" rate for five-year fixed-rate mortgages was 3.75%; as of this April it was 3.1%; in May, rates below 3% are being advertised (even lower rates might be negotiated). Looking back at the Bank of Canada analysis framework, the resultant improvement in affordability should tip the "fundamental factors" from what had been a neutral position at the end of 2018, to a more positive situation at present. The sales rate should be rising rapidly. The very muted market response so far indicates that there is a still a very substantial drag on demand, which surely includes the suppressive effects of the mortgage stress tests (which occur at an interest rate that hasn't changed). If sales improve during the coming months, that would most likely be due to the positive influence of improved affordability, rather than to any waning of the effects of the stress tests.
- There is a fourth consideration that creates uncertainty: the excess activity seen earlier was due to enthusiasm within (maybe) six categories of buyers. These groups are overlapping, and any transaction could fall into more than one category: (1) foreigners, (2) speculators (who are looking for a quick capital gain), (3) long-term investors, (4) money launderers (there is currently a lot of discussion but at this time there is a great deal of uncertainty about the magnitude and consequences), (5) home builders and renovators who intend to add value to the properties and then sell them, and (6) the largest category, which is Canadian homebuyers who will occupy the dwellings themselves. Similarly, in the downturn there have undoubtedly been reductions for some (if not all) of these groups.
- From the point of view of understanding the impacts of the stress tests, it would be useful to know what happened within the sixth category (as well as the fifth, since that activity depends on being able to sell the renovated properties). How much excess homebuying activity was there; how large was the subsequent drop; what is the combined result from those two periods; and what is the current trend? We just don't know, but if we did, we could draw more definite conclusions about the impacts of the stress tests.
- For example, it is possible that a large share of the prior excess was due to increased activity by the first four groups (foreigners, speculators, investors, and money launderers). In this hypothetical, recent buying by these non-homeowner groups might now have returned to roughly a normal level. Further, the period of excess would have included less of an increase by homeowners, and there would have been little or no need for subsequent "payback" of demand by owner-occupants. In this scenario, total current activity should now be close to a normal level, but it isn't. The current low volume of actual sales might mean that buying by homeowners is now far lower than we should otherwise expect. This would hint that the depressive effect from the stress tests is larger than the 10,000 estimated by the Bank of Canada report (as is discussed below, a report from economists

at TD Bank points to an impact of 40,000 sales, and commentary from CMHC hints at a substantive impact).

- Relatedly, the Bank of Canada study comments that there was very strong investor activity in the Toronto area during the period of excess but it has "returned to levels last seen in 2014". This information provides tentative support to the scenario discussed above.
- Finally, the Bank's review looks only at resale market activity. As is discussed below, significant changes are developing for new housing construction and (possibly) renovations, which are much more important economically.

### *Canada Mortgage and Housing Corporation*

In his March 5, 2019 article in the Toronto Star, the CEO of CMHC commented "Analysis by some of my colleagues at CMHC concluded that the stress test has helped make houses more affordable. In fact, we conclude that houses in Canada are now 3.4 per cent cheaper than they would have been without it."

In order to develop the estimate of the price impact, the CMHC analysts must have estimated how much sales had been reduced by the stress test. The research has not been published and so we don't know what the impact estimate is. But, a 3.4 percentage point incremental impact on prices within a relatively short period of time is quite large, and it is possible that the underlying estimate of the sales reduction is also substantial. (Within my own forecasting system, to produce a 3.4-point incremental reduction of Canadian house prices within one year requires a sales reduction of about 35,000 units.)

Relatedly, CMHC has estimated that the proposed "First-Time Home Buyers Incentive" (the shared equity program that was proposed in the recent federal budget) will have a price impact that is not "beyond a maximum of 0.2-0.4 per cent". Taking the mid-point of that range (0.3%), the positive impact of the new program is expected by CMHC to be only one-tenth of the negative effect (-3.4%) that resulted from the stress test. This supports the suggestion that CMHC's internal estimates show a substantial negative effect on sales from the stress test.

CMHC ought to contribute to the on-going discussions by publishing its research on the effects of the stress tests.

### *Department of Finance*

I would expect that Finance is closely monitoring the impacts of the policies, but it does not appear to have published any substantive research. It would be very useful for the detailed results of its evaluations to be in the public realm.

### *TD Bank*

In a report dated April 30, 2019, economists from TD Bank estimated that "B-20 has lowered Canadian home sales by about 40k between 2017Q4 and 2018Q4". On this basis, the stress tests would be responsible for more than one-half of the current sales shortfall (which I have estimated as 65,000).

The report also comments that "if the B-20 regulation was removed immediately, home sales and prices could be 8% and 6% higher, respectively, by the end of 2020, compared to current projections". This statement is not arguing for the repeal of the stress tests; rather, the intent appears to be to further illustrate the magnitude of the effects of the policy, and the difference between the two binary options.

The TD Bank report does not make any policy recommendations at present, as it says "There is certainly scope to tweak the guidelines if circumstances change and/or housing markets undershoot expectations."

In a written submission[2] to the House of Commons Standing Committee on Finance, the CEO of CMHC incorrectly characterized the TD Bank report, stating "economists at TD Bank argued that the stress test should be removed so that house prices can increase by $32,000". To the contrary, the TD Bank report is clearly exploring a hypothetical, as is shown by the title of the report section: "What if the B-20 were to be removed?" It is clear that the report is not arguing for removal of B-20. This is a further and clear illustration of the failure of a federal official to engage with the actual arguments that are being made, and this has been done in an official statement made to the Canadian legislature.

### *RBC*

Published economic commentary from the economists at RBC does not appear to have specifically addressed the stress tests (and certainly not in terms of effects or policy alternatives).

Housing-related commentary (eg., within "Focus on Canada's Housing Market", March 20, 2019) shows that their concern is inadequate housing supply, and that this should be a policy focus. They do express concern that policy measures that raise demand without addressing supply gaps would have the effect of raising prices and consumer indebtedness. From that perspective one might assume that the economists at RBC would not be in favour of loosening the stress tests at this point, but to emphasize, this has not been explicitly stated.

[2] May 23rd. The written statement is reproduced here on the CMHC website: https://www.cmhc-schl.gc.ca/en/media-newsroom/cmhc-statement-letter-standing-committee-finance-fina

### *Scotiabank*

Recent commentary ("Global Economics, The Week Ahead", May 3, 2019) expresses very clear opinions: "I personally disagree with advice to abandon or relax B20. For one thing, I've likened the abandonment of B20 at this phase to be metaphorically similar to prematurely ceasing a course of antibiotics treatment just as the patient stabilizes and against doctor's orders. The housing and mortgage market is being put on firmer foundations." A few more brief and powerful comments discuss negative consequences of the "shock-control economics of the advice to abandon B20". Essentially, abandoning the stress tests would bring a resumption of "the riskiest financing behaviour", prices would rise (reducing affordability), and interest rates would be more likely to rise.

### *CIBC*

The "Economic Insights" report for April 18, 2019, has a headline that expresses a clear opinion: "Mortgage Stress Test: The Operation Was a Success, But…" [as in, "the patient died"]. The article provides a very useful overview of volume changes that have occurred for mortgage originations ("The value of new mortgages fell by 8% (or $25 billion) during the year" and estimates that "B-20 accounted for 50%-60% (or $13-$15 billion) of the overall decline in originations throughout 2018". While the article does not draw a conclusion about the effect of the stress tests on sales, the commentary on reduced mortgage originations clearly points to a substantial impact.

The author of the CIBC report asks "Time to Rethink B-20?" and "is 200 basis points the right number?" and comments "borrowers' income is likely to rise during the mortgage terms. Average personal income has risen by a cumulative 12.5% over the past five years—the stress test does not take that into account. Nor does B-20 allow for the fact that during the course of the mortgage term, equity position rises due to principal payments. Another shortcoming is that the stress test doesn't consider mortgage term and the decreasing borrower risk with longer terms selected. And finally, B-20 is in part behind the strong rise in alternative lending."

The report concludes with a recommendation: "Accordingly, regulators should revisit B-20. We need a more flexible benchmark, potentially a narrower spread over the contract rate when interest rates approach cyclical peak, and perhaps to establish a reasonable floor under which the qualifying rate will never drop below."

This might be the first published report from a bank economist that argues for amendments to B-20.

*Me*

I have written a lot of words on the mortgage stress tests, in several different reports (some of which have been published by Mortgage Professionals Canada and some of which I have published personally). I don't think I have ever argued for abandoning B-20.

*The Flaw in the Stress Tests*

The stress tests fail to consider that at the time of mortgage renewal (which usually occurs in five years) incomes will have increased and significant amounts of mortgage principal will have been repaid. Therefore, the tests under-estimate how much the borrower will be able to afford to pay and over-estimate how much the payments might rise.

- If income grows by 2% per year (which is less than the long-term average[3]), the combined effects of higher income and reduced principal, with a 2-point rise in the interest rate in five years, could be assessed today by setting the stress test at 0.75 points above the contracted interest rate.
- The stress tests assume a combination of two events that are very unlikely to happen together: that interest rates rise by a substantial amount (which would most likely be the result of strong economic conditions) and that even in that strong economic environment, incomes would not increase (notwithstanding a long, uninterrupted history of wage growth in Canada).
- In consequence of the failure to consider these factors that will affect renewal situations in future, access to homeownership is being reduced by more than it needs to be.
- Several industry associations are making related arguments.

*Emerging Economic Consequences*

There will be economic consequences of this excessive reduction of homebuying, and these have not been fully anticipated.

To the extent that there has been commentary on the economic consequences, it has focused on the impact of reduced resale market activity. The Bank of Canada has shown that this is relatively small, in terms of reduced GDP (although the Bank acknowledges that the actual effects have been larger and more long-lasting than had been expected). In the Bank's Monetary Policy Report (published April 2019) it estimated that housing contributed to a -0.2% reduction in GDP in 2018 and would have an effect of -0.3% this year (but then housing would add 0.2% in both 2020 and 2021).

[3] Statistics Canada's Labour Force Survey began collecting data on wages in 1997. The average weekly wage has increased every year, by an average of 2.6% per year, or by 13.7% per 5-year period.

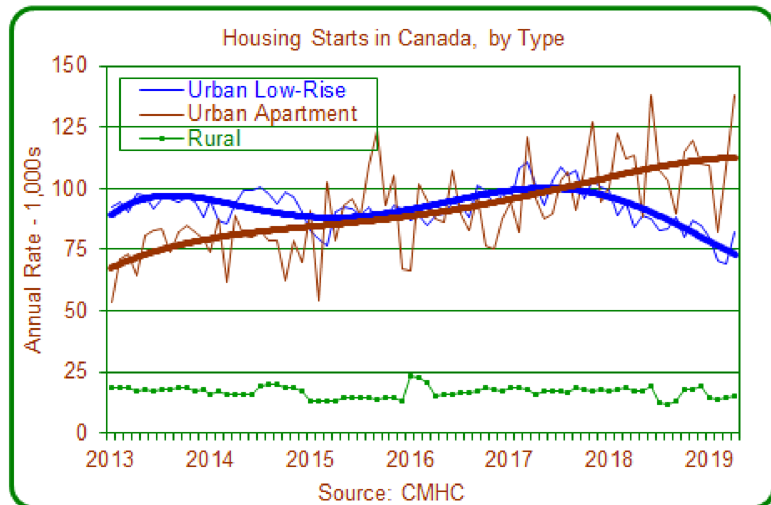
These estimates suggest that, in the big picture, the direct economic impact of reduced resale market activity is quite small.

Relatedly, according to estimates from the Canadian Real Estate Association ("CREA"), each home sold results in about one-third of a person-year of employment. On this basis, the actual drop that has occurred (60,000 or 70,000 sales per year below the level that we would otherwise expect) might reduce employment by about 20,000 person-years, which would be trivial relative to total employment in Canada (close to 19 million).

Housing construction has much greater economic consequences: in research conducted for the Canadian Home Builders Association, using various data from Statistics Canada, I have estimated that each new single-family detached home results in about four person-years of employment, or more than 10 times as much as each resale. This makes sense because construction of a new home involves much more work than selling an existing home (there is more on-site labour, using more materials, and requiring more involvement by various service providers).

Other dwelling types (single-detached, town homes, and apartments) are less expensive to build and therefore have smaller economic impacts (about 2.5 jobs per semi-detached and row home and 2 jobs per apartment). These economic impacts are still substantial.

It takes time for housing starts to respond to changing conditions, because new homes are usually "pre-sold" before construction starts. Furthermore, the economic effects play out during the construction period of the homes. As this chart illustrates, we are already seeing sharp reductions in starts of low-rise dwellings (singles, semis, and town homes). During the first four months of this year, the average pace of starts for low-rise homes in urban areas has been 75,500, which is 20% lower than the average of 94,600 that was seen during 2013 to 2017. Applying the jobs factors, this can be expected to bring a drop of about 75,000 person-years of employment (per year), once the impacts have fully materialized.




For rural areas (which are a small share of total housing starts), activity so far this year is 15% below the average seen during 2013 to 2017. The jobs impact might be in the area of 7,500 to 10,000 person-years.

Those negative impacts have barely begun, because homes that were started earlier are still under construction – the negative consequences will develop gradually during the remainder of this year and into 2020.

For apartments, there are longer pre-production processes. The trend for apartment starts continues to reflect pre-construction sales that were made during 2017, and even 2016. So far this year, the pace of apartment starts (109,600) is 27% above the 2013-2017 average. The number of apartments under construction is at the highest level of the past three decades. At present, the apartment sector is a positive force for employment. But, scattered evidence suggests that there has been a sharp reduction in pre-construction sales of apartments (data for the Toronto area, collected by the Altus Group, shows that during the past 12 months, the pace of sales was 28% lower than the average seen during 2010 to 2017, and 36% below the average for 2014 to 2017. Anecdotal commentary in Vancouver hints at large reductions). We are quite likely to see a downward turn for apartments starts during this year, with further reductions next year.

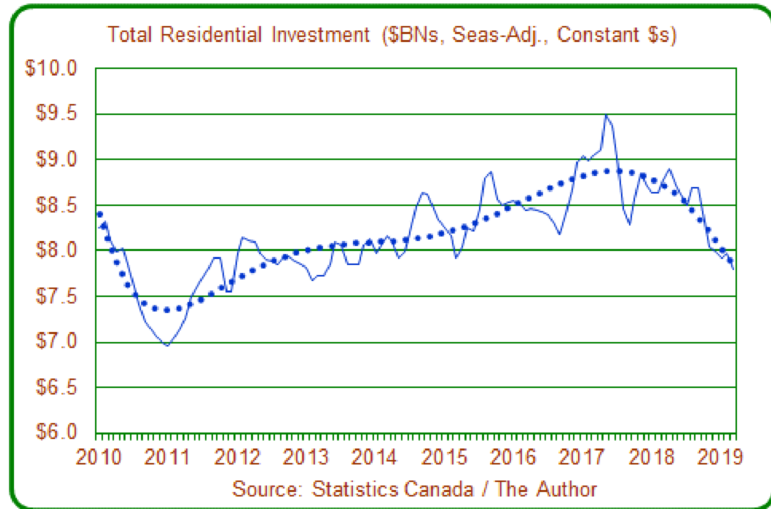
The employment impacts will be even farther behind (due to the long construction periods for apartments), and those impacts will develop quite gradually. By mid-2021 and beyond, there are likely to be substantial reductions of employment associated with apartment construction. This will be in addition to the large reduction related to low-rise construction, and the smaller impact of reduced resale activity.

*Some Preliminary Estimates of Emerging Economic Impacts*

Statistics Canada is developing new data on investment in residential construction. At this time, there is a substantial amount of new data that is shown in actual dollars. This data is difficult to interpret, because interpretation requires that we have estimates that are adjusted for inflation (and it would also be useful to have data that is seasonally-adjusted). Statistics Canada is publishing cost-adjusted and seasonally-adjusted data only at a very high level (for single-detached versus other types of dwellings, and only for total activity, and not separating types of activity – i.e. new construction versus renovation).

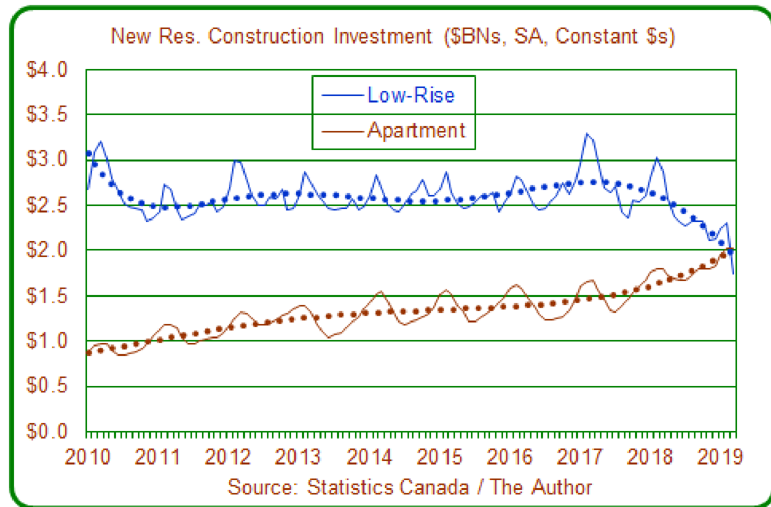
The available data indicates that for the first three months of this year, total residential investment (after adjustment for inflation and seasonally-adjusted) was 8% lower than the average seen during 2015 to 2017.

Given that trends are probably evolving in quite different ways within the detailed components of residential investment, we are limited in our ability to draw conclusions.



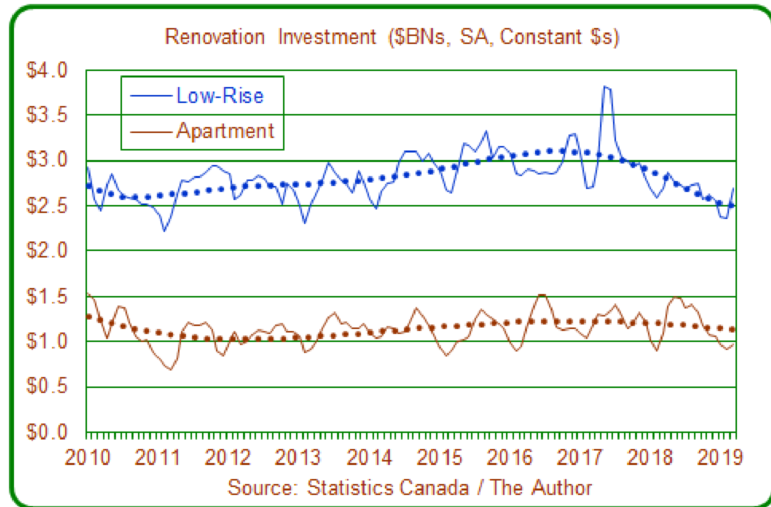

In response, within the next two charts, I have used the available data from Statistics Canada, in "back-of-the-envelope" calculations, in an attempt to look at important subsets of the data.

The first chart indicates that investment in new construction has fallen sharply for low-rise homes (single-detached, semi-detached, and town homes). While this is preliminary and unofficial data, it suggests that investment in new low-rise dwellings has fallen by about one-quarter and is now, by far, at the lowest level of the past decade. And, the trend line is still pointing sharply downwards. These data show monthly estimates. The drop (now exceeding $600 million per month, versus 2015 to 2017) points to an annual impact in the area of $7-8 billion (and, again, the trend line is still falling). This is occurring at a time of considerable economic strength and the fastest rate of population growth in a generation. As has been commented already, this construction activity should now be expanding, not contracting.




For apartments, on the other hand, investment activity is extremely strong. This reflects high volumes of pre-construction sales that occurred more than a year and a half ago, for which construction is still underway. As has been discussed, starts of apartments are highly likely to turn down during the remainder of this year, and a downward turn for investment will develop next year. By the second half of 2021, the trend for investment in apartments may have fallen by as much as for low-rises (in the area of $7-8 billion at an annualized rate).

It appears that renovation activity is also slowing. Historically, renovation spending is related to trends for resale activity. This makes sense as major drivers of home renovation are improvements by the sellers prior to the listing, improvements by the new owners, and perhaps most significantly, purchases by homebuilders who substantially renovate for a subsequent sale.




In this chart, renovation of low-rise dwellings is now trending downwards: the trend line is about $600 million per month (20%) below the peak level that was seen during 2015 to 2017. It is now lower than it was during 2010-2011, and it is still falling. Recalling that the population of Canada is growing and the inventory of dwellings is expanding, we might expect that this renovation activity (after adjustment for inflation) would be at least 10% higher than it was during 2010-2011. The low level of renovation in low-rise dwellings is evidence of a developing negative economic event. As was noted for new construction, these are monthly estimates. The evolving declines for low-rise renovation currently points to a $7-8 billion annualized reduction.

For apartments, the trend line hints at a small reduction, but the volatility of these preliminary estimates creates uncertainty about the true trend.

Combining these evolving events (falling investment in construction of new dwellings and renovations of low-rise dwellings, by 2021 the total negative impact might be in the order of $20-25 billion dollars of GDP. Correspondingly, total employment in Canada might be 200,000 (or more) lower than would occur otherwise.

The jobs impacts that have occurred so far might be just one-tenth of the eventual total. The economic adjustments have barely begun, and they will take a long time to play out.

These conclusions might encourage some discussions. In support of those discussions, it would be really useful for Statistics Canada to publish more details for seasonally-adjusted, cost-adjusted residential investment in Canada.

*Long-Run Impacts on Housing Supply*

Reduced housing activity will have long-term negative consequences for housing consumers.

The rate of population growth in Canada has increased and now (at 1.37% per year during the past two years) is far above the long-term average (1.09% per year during the prior 30 years). In consequence, housing starts in Canada should now be expanding, not contracting.

During the past decade, housing indicators have shown worsening supply-demand imbalances: rapid growth of rents and prices, low and falling vacancy rates in the rental sector, and high sales-to-listings ratios in the resale market (apart from the recent disruption). The developing contraction of housing starts will, in the longer-term, further worsen those imbalances. The effects will not be felt just for homebuyers. Reduced completions of new dwellings, in the face of rapid population growth, will result in lower vacancies and rent growth that exceeds income growth (because there will be less movement of tenants out of rentals into ownership). This process has barely begun, because housing completions are still strong, and will not decisively turn down until late next year or even into 2021.

*Severe Economic Risks Related to Price Reductions*

In a modern economy, one of the most dangerous things that can happen is for house prices to fall. This argument is developed very well in a book that is well known in Ottawa[4]. The key conclusion is expressed very succinctly on page 133: "The dramatic loss in wealth of indebted home owners is the key driver of severe recessions". CMHC has commented that the stress tests have caused house prices in Canada to be 3.4% lower than they would otherwise be. In some places this has resulted in a slowdown of price growth; in others, where market conditions were already weak, we are now seeing outright reductions of housing prices. The House Price Indexes estimated by the Canadian Real Estate Association have fallen during the past year in most of the key market areas in western Canada, as of April by: 7.1% in the Lower Mainland of British Columbia, 8.5% in Greater Vancouver, 4.6% in the Fraser Valley, 4.6% in Calgary, 4.0% in Edmonton, 4.3% in Regina, and 1.7% in Saskatoon (increases are shown for Victoria (0.7%), Vancouver Island (6.2%), Okanagan Valley (1.0%); CREA does not publish a price index for Winnipeg).

Some erosion of prices can be tolerated without creating substantial economic risks. But, the longer the declines last, and the larger the total drop, the risks of "severe recessions" can escalate: a tipping point can be reached at which falling house prices begin to significantly impair consumer confidence to the extent that a recession results. In the worst-case, the interaction between price declines and falling employment can cause a downward spiral (as happened in the U.S. during 2007-09 and the Greater Toronto Area during 1990). The stress tests are contributing to the price erosion and the escalating economic risks that are now developing across western Canada. Elsewhere in Canada, price trends are more positive and the risks of a policy-induced recession

[4] "House of Debt", by Atif Mian and Amir Sufi. The University of Chicago Press. 2014

are lower. But, even in those areas, the induced slowing of house price growth will cause consumer confidence to be less positive than it would be, and therefore economic growth will be less than it could be. Weakened house prices will impair job creation in Canada. This is additional to the impairments that will result from reduced resales, new housing starts, and home renovations.

*Conclusion on Housing Market Impacts*

Resale activity is currently about 65,000 units (13%) lower than we might expect: the annualized rate is currently in the area of 450,000, versus a long-term average rate of 515,000 that can be calculated on a population-adjusted basis. As the Bank of Canada research has pointed out, the evolving reduction of housing activity has multiple causes. Part of the shortfall is the direct result of the stress tests. The few researchers who have attempted to quantify the impacts of stress testing have reached differing conclusions: the estimate from TD Bank is larger than the Bank of Canada estimate; as was discussed, it appears that CMHC might be estimating a substantial impact, but its research has not been published. CIBC's commentary on mortgage originations is consistent with a large reduction of sales.

None of these other commenters have discussed the downturns that are developing for new construction and residential renovation, but the emerging data suggests that substantial negative events are developing.

We can't say with any certainty how much of the housing market downturn and its evolving negative impacts (a slow erosion of employment during the coming two years – and beyond – and worsened long-term shortages for both homeownership and rental housing) will be due to the stress tests, but we can say that as a result of the stress tests, these future events will be worse than they might otherwise be.

## The Impact of Stress Testing for Mortgage Renewals

Before accepting an in-transfer of an existing (non-insured) mortgage, a federally-regulated lender must subject the loan to the B-20 stress test. But, the current lender can renew a mortgage without stress testing. The concern is that since this could prevent some renewing borrowers from switching lenders, they could be trapped at their current lenders, and the lenders could exploit the situation and charge them a higher interest rate than would otherwise be available. Or, the borrower might escape from the situation by switching to a lender that is not federally-regulated – this could also result in a higher interest rate.

There have been multiple calls for this policy to be changed, because of the risk it creates for borrowers.

In a May 6, 2019 speech[5], Mr. Stephen Poloz, Governor of the Bank of Canada very briefly discussed some related research: "Bank staff have also been monitoring the impact of the new mortgage guidelines and higher interest rates on cash flow as households renew their loans. From our initial look at individual loan-level data in 2019, we see that mortgage payments did not rise for most borrowers who recently renewed a five-year, fixed-rate mortgage."
However, this research, as it is described, does not answer the necessary research question, which should be: "For renewing mortgage borrowers who would fail the stress test, how do the interest rates obtained compare to the rates for renewers who would pass the test, but who are otherwise similar (i.e. they have taken the same mortgage type and term-to-maturity; they have the same insured/uninsured status; they have similar loan-to-value ratios; they have similar credit histories; and they have similar demographic characteristics)." From the description of the Bank's research, it appears that the data has lumped borrowers together, whether or not they would pass the stress test, and therefore the data does not provide the necessary comparison of borrowers who pass or fail the stress test.

I expect that within the group of borrowers that has been analyzed by the Bank (those selecting five-year fixed-rate mortgages) a very substantial majority would have passed the stress test and therefore they were not at risk of being captured:

- At the time they originally took the mortgage, most would have borrowed less than they qualify for: for example, data from CMHC shows that for 2016 – the year before its revised mortgage stress test took effect – the average GDS ratio for "transactional homeowner" insured mortgages was 26.1%, which is far below the allowable maximum. In the absence of any other changes, most renewing borrowers could be expected to pass the stress test.
- There have been other events that further raise the probabilities of passing the test.
- Since originally obtaining the mortgage, the borrowers would have repaid a substantial amount of mortgage principal (the majority of these borrowers will have completed an initial term of five years and will have typically repaid close to 15% of the original principal, based just on the required payments, and even more if they have made any efforts to pay more than their minimum required amounts).
- Furthermore, their incomes will have increased.

Moreover, comparing the borrowers' current interest rates to their pre-renewal rates tells us nothing about whether the rates they have received are competitive in the current marketplace. Based on my on-going informal survey of lenders' advertised "special offer" rates, I estimate that five years ago (the first four months of 2014) the average rate for five-year fixed-rate mortgages was 3.48%; for the first four months of this year, the figure is fractionally lower, at 3.46%.

Considering these factors (the small percentage of renewers who would fail a stress test, and the unchanged typical market interest rates), it is unsurprising that most recent renewers have not seen an increase in their mortgage payment.

[5] The text can be found here: https://www.bankofcanada.ca/2019/05/risk-sharing-flexibility-future-mortgages/

In consequence, this data from the Bank of Canada tells us nothing about the outcomes for renewing borrowers who fail the stress test. The conclusion that is implied by Mr. Poloz (that the stress test has not affected renewal outcomes) is not supported by the data he has provided.

It might be impossible to conduct research that will accurately enlighten us on outcomes for renewing borrowers who fail the stress test. If anyone can do it, that would be the Bank of Canada.

## The End (for now)

One of the greatest risks to the Canadian economy is a policy error that causes house prices to fall and thereby (and totally unnecessarily) causes an economic recession that does great harm to hundreds of thousands of Canadians. I worry about that.