



ANALYSIS

May 17, 2019

Prepared by

Andres Carbacho-Burgos Andres.Carbacho-Burgos@moodys.com Director

Contact Us

Email

help@economy.com

U.S./Canada +1.866.275.3266 EMEA +44.20.7772.5454 (London) +420.224.222.929 (Prague) Asia/Pacific +852.3551.3077 All Others +1.610.235.5299 Web

www.economy.com www.moodysanalytics.com

Canada Housing Market Outlook: A Needed Pause in Demand

Introduction

The gradual disinflation in Canada's housing market continues at a steady pace. It has now been more than three years since the first of several policy interventions intended to halt the deterioration in affordability in Toronto and Vancouver. Despite more recent moves to improve affordability for first-time homebuyers, the overall policy stance is still to reduce demand: The short-term monetary policy rate hikes, stress tests for insured and uninsured potential borrowers, and British Columbia and Ontario housing plans have all aimed to push down purchasing power.

With the direct and indirect effects of monetary tightening, house price appreciation will slow down in 2020, turn briefly negative in 2021, and only recover in the following years. Over the coming year, only Montréal will have moderate house price appreciation compared with the other large metro areas, but in subsequent years there will be a partial recovery, with Toronto doing somewhat better. Vancouver house prices will dip over the next year, and the metro area will be lucky to maintain level prices through 2024 given how overvalued house and apartment prices are currently.

Canada Housing Market Outlook: A Needed Pause in Demand

BY ANDRES CARBACHO-BURGOS

he gradual disinflation in Canada's housing market continues at a steady pace. It has now been more than three years since the first of several policy interventions intended to halt the deterioration in affordability in Toronto and Vancouver.¹ At the national level, overall affordability has yet to improve, but given the substantial increases in the average mortgage rate over the past two years, it would be difficult for any set of reforms, no matter how vigorous, to lead to an immediate improvement in affordability. Right now, the immediate policy focus is on bolstering mortgage credit quality and reducing housing cost burdens, even though this comes at the cost of reducing home sales and homeowner equity.

In addition, the macroeconomic pullback inherent in the Bank of Canada's current policy stance is taking its toll on the housing market: Housing starts peaked in late 2017 and have trended downward in the subsequent year and a half. Housing-related industries such as residential construction, financial intermediation, and real estate brokerages have not yet started to pull back on payrolls, but such pullback is a substantial risk if home sales do not begin to rebound following their previous two-year decline.

The good news is that policy interventions are now also attempting to directly affect affordability by decreasing demand, as opposed to slowing price growth. The proposed fiscal 2019-2020 budget contains two demand-side interventions intended to help first-time homebuyers: an increased ceiling (from C\$25,000 to C\$35,000) on withdrawal from retirement savings in order to make a down payment, and new access to a shared equity mortgage with Canada Mortgage and Housing Corp. These two new measures are unlikely to have a significant

effect in Vancouver and Toronto, where median house prices are too large to make down payments affordable for a large share of first-time homebuyers even with the help of these measures; the policy measures also cap eligible incomes and cap the total purchase price of the home well below the median home values in Toronto and Vancouver. But the new measures could help first-time buyers over the hump in the Prairie and Atlantic provinces, where house prices are much lower. Despite these moves to improve affordability for first-time homebuyers, the

overall policy stance is still to reduce demand: The short-term monetary policy rate hikes, stress tests for insured and uninsured potential borrowers, and British Columbia and Ontario housing plans have all aimed to push down demand, though there are some measures such as taxes

on vacant apartments that are intended to increase supply but have little relevance outside of the largest metro areas.

Recent Performance

After more than two years of decline, sales in the resale market appear to have reached bottom, coming in slightly below 450,000 annualized in the first months of 2019, after peaking at 550,000 in early 2016 (see Chart 1). The inventory-to-sales ratio has also increased since early 2017, though it is still relatively tight. The drop in sales took

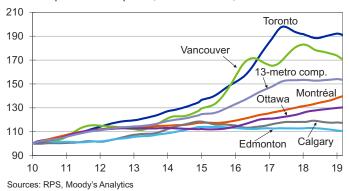
Chart 1: Resale Market Is Still Loosening



¹ The first such measure being a new 3% bracket on property transfers valued above C\$2 million in British Columbia, announced in February 2016.

Chart 2: Toronto, Vancouver Lose Traction

RPS composite house prices, Jan 2010=100, SA



place against a background of interest rate tightening. The average five-year mortgage rate tracked by CMHC increased from 3.6% in mid-2017 to 4.6% in January, though it has started to come down in the past two months, as the BoC has paused short-term rate hikes so far this year. The bank's pause will likely continue for the next few months, since fourth-quarter GDP growth underperformed relative to expectations.

House price appreciation remains regionally asymmetric and will likely stay that way. Chart 2 shows RPS transactions-weighted composite indexes for the six largest metro areas and the RPS 13-metro area composite index. Whereas Montréal and Ottawa still show steady appreciation, house prices in Toronto and Vancouver are in slow retreat. It is these two metro areas and, to a lesser extent, Calgary and Edmonton that have pulled down on the 13-metro area composite index, which leveled out after early 2017.

More recent dynamics of metro area house prices are shown in Charts 3 and 4, which compare price index motion between September and March. Prices in Vancouver were slipping in September and are now in steady retreat thanks to demand-constraining policies and also

in part to the increase in the nonresident gross-value-added transfer tax from 15% to 20% early last year. Toronto prices have leveled out after falling through mid-2018, but the Toronto housing market is still far from regaining its pre-2017 momentum. House prices in the Prairie metro areas are moving sideways at best and slowly falling at worst. Only Montréal, Québec City and Ottawa now have steady house price growth, though the Montréal housing market may overheat in the coming year if it sustains appreciation at the current pace.

Reacting to falling absorption in the new-home market, residential construction is now also well past its peak. Annualized housing starts fell from 220,000 in late 2017 to slightly below 200,000 earlier this year. Falling absorption of new homes has also squeezed new-home appreciation: New-home prices have been flat since early 2018. Overall, it may be an exaggeration to say

that Canada's housing market is in a deep freeze, but it is definitely the case that policy interventions have seriously reduced activity in sales and construction.

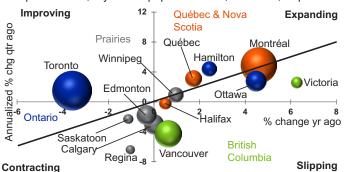
Is mortgage debt sustainable?

Of the various policy interventions, the most controversial has been the stress test on uninsured mortgage borrowers required by the Office of the Superintendent of Financial Institutions' revised B-20 guideline. The revised guideline affects a much larger share of would-be borrowers than does the earlier version of the guideline, which imposed the stress test for insured borrowers.

However, it is important not to overstate the importance of the revised OSFI guidelines. For starters, the mortgage intervention is taking place after close to 10 years of steady economic expansion and a tightening labor market. Thanks to high employment, consumer debt performance is better than at any point since 2008, and in particular the percentage of mortgages in arrears is at an 11-year low (see Chart 5). Second, if a potential borrower has insufficient income to qualify for a mortgage under the tighter guidelines, that does not necessarily lead to the loss of a home sale. Potential borrowers still have the option to buy lower-priced homes, and sometimes to make a larger down payment in order to reduce their monthly payment and increase their qualifying income; only the decision to delay a home purchase to wait for a lower mortgage rate or build up savings for a down payment leads to current

Chart 3: Toronto Was Down in September...

Composite index, 1-yr vs. 1-qtr performance, 3-mo MA, Sep 2018



Sources: RPS, Moody's Analytics

Bubble size indicates # of households

Chart 4: ...But Has Started to Recover

Composite index, 1-yr vs. 1-qtr performance, 3-mo MA, Mar 2019



Sources: RPS, Moody's Analytics

Bubble size indicates # of households

Chart 5: Debt Service Is Good, So Far

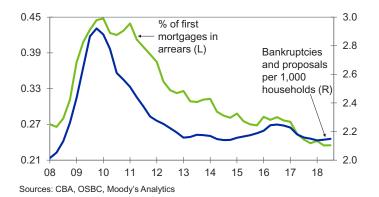
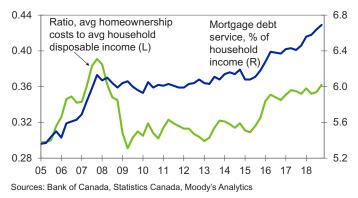


Chart 6: Debt Service Starts to Strain



nonsale. A recent research paper by the BoC has estimated that the OSFI B-20 guideline stress test has directly reduced resales only by about 10,000 per quarter, with a much larger share of reductions due to worsening affordability as mortgage rates and house prices increase.²

But the need to make potential homebuyers buy a lower-priced home or defer their purchase is quite plausible, even when not considering metro area housing markets and if looking at the national market as a whole. Mortgage debt service as a percentage of disposable income has trended upward over the past two decades and has increased substantially since 2014 (see Chart 6). Average homeownership costs as a percentage of average disposable income tends to be more variable, but it too has increased since 2013. More worrying, this cost ratio increased even in 2016-2018 after policy interventions started to slow the housing market. However, it is true that the increase in relative ownership costs leveled out after 2016. The BoC has also estimated that the ownership cost to disposable income ratio, which is now at 0.36, would easily have increased to 0.41 or higher if house price appreciation had continued at its pre-2017 pace.3

A further area of concern is that due to differences in income growth and unem-

ployment rates as well as home values, the ability to service mortgage debt is not evenly spread out across Canada. Although still low in a business cycle sense, the shares of first mortgages in arrears are much higher for the Prairie and Atlantic provinces than for Canada on average (see Chart 7), and indicate that continued increases in ownership cost to disposable income ratios could worsen these provinces' housing markets and further drag on their already-weaker GDP and income growth. While it is possible to make the case that the tighter mortgage lending conditions embodied in the new B-20 guideline are an overreaction, it is difficult to make a case that tighter mortgage lending was not needed, given both the worsening mortgage debt service trend and the worse relative position of the Atlantic and Prairie provinces.

A quick note: The new-home market

Despite the tightness of the new-home

market in a few metro areas like Toronto, the environment of rising interest rates and falling affordability has also seriously impacted purchase demand. Consequently, inventory

indicates that for the 33 census metro areas, total unsold

totals of new homes

have shot up. CMHC

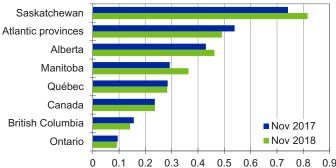
areas, total unsold inventory of newly

built detached and semidetached single-family homes surged from about 5,500 in mid-2017 to almost 7,500 currently. This increase is not due to any surge in construction but due to a drastic decline in absorption, from almost 5,000 per month in late 2017 to little more than 3,000 per month as of March 2019.

Chart 8 shows the ratio of new single-family inventory to total absorptions for all 33 metro areas and breaks down the share of this ratio by the largest six metro areas and the rest. The increase in the overall ratio from late 2017 is apparent. While a rise in inventory in Calgary, Edmonton and Vancouver accounted for part of the increase, the largest combined increase was for the 27 smaller metro areas. By contrast, the new-home markets in Toronto, Montréal and Ottawa remain relatively tight and have not seen any increase in unabsorbed inventory.

Chart 7: Rural Provinces Not as Well-Off

Share of first mortgages in arrears, %, by province



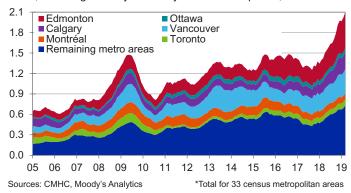
Sources: CBA, Moody's Analytics

² See Mikael Khan and Taylor Webley, "Disentangling the Factors Driving Housing Resales," BoC Staff Analytical Note 2019-12.

³ See Carolyn A. Wilkins, "Balancing Act: The Link Between Monetary Policy and Financial Stability," CMHC National Housing Conference presentation, November 22, 2018.

Chart 8: Slowing Demand for New Homes

Ratio, new single-family inventory to total absorptions,* 3-mo MA



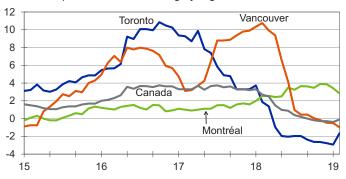
Despite the tight market for new homes in Toronto, the willingness of potential buyers to pay has fallen off, and thus house price appreciation has slowed and even started to fall. The same is true in Vancouver, though the decline is more recent. Overall, the price of new homes has leveled off for Canada as a whole, with Montréal being the main exception (see Chart 9). Although the ratio of new-home absorptions to resales is currently less than 10%, the loosening of the new-home market has eliminated and possibly even reversed the upward price pressure on the resale market over the past year and a half.

Valuation

The Moody's Analytics forecast model for the RPS house price indexes compares current house prices to long-term trend prices. These trend prices are less sensitive to business cycles and are determined by local household income, population size, the national new house and land price index (which is used as a proxy for overall land and construction costs), and for a few metro areas, the deflated stock market price index—a proxy for national wealth—interacting with metro area population dynamics. The divergence between the current price and this long-term trend price determines the degree of over- or undervaluation, which is an important driver of the house price forecast.4

Chart 9: New-Home Prices Level Out

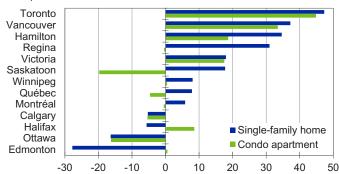
New-home price indexes, % change yr ago



Sources: Statistics Canada, Moody's Analytics

Chart 10: Toronto, Vancouver Defy Trend

RPS price indexes, % deviation from trend, 2019Q1



Sources: RPS, Statistics Canada, Moody's Analytics

vincial ownership transfer taxes are also part of the mean-reversion mechanism by which house prices in a region return to their longterm trend values.

In addition to

standard mechanisms

by which an overval-

ued housing market

tends to move into

correction territory—

reduced demand due

to low affordability

and increased sup-

ply due possibly to

resurgent construc-

tion—direct policy

interventions such as

the OSFI mortgage

stress tests and pro-

Chart 10 shows the degree of over- or undervaluation as of the first quarter of 2019 for the metro areas that make up the RPS 13-metro area transactions-weighted composite index. As might be expected from their very strong price growth through 2016, prices for single-family homes and condo apartments in Toronto and Vancouver remain seriously above their long-term trend despite more recent price declines, followed closely by Hamilton. The Saskatchewan metro areas present a puzzle. A relatively low level of resale listings and little residential construction have helped to keep single-family homes priced above trend. By contrast, the rental vacancy rate is much higher than the Canada average and the resulting downward pull on rents has also pulled down condo apartment

prices, keeping them close to their long-term trend in Regina and undervalued in Saskatoon.⁵ A long period of subdued housing demand relative to income growth now has single-family home prices in Ottawa and Edmonton below trend.

A large deviation from trend does not necessarily result in a short-term correction for house prices. In markets such as Toronto that have a combination of a highly restricted supply of available homes relative to demand or where wealth inflows add to the demand for upper-tier housing, displacing local demand to lower-priced homes, house prices can persist for a long time above the trend

⁴ For full details on the Moody's Analytics forecast model for RPS house price indexes, see "Moody's Analytics Canada RPS House Price Index Forecast Methodology," available from Moody's Analytics or RPS.

Also, the main driver for trend prices differs between singlefamily homes and condo apartments. The income driver for the single-family home trend price is median family income, whereas the income driver for condo apartment prices is average household income. If these two income measures diverge, which can often happen in metro areas with slow or falling demographics, then the trend prices for the two markets will diverge.

price suggested by economic fundamentals. Indeed, the data from 2005 onward for the Ontario metro areas show little if any sign of mean-reversion, and this history has been factored into their house price forecasts.

Macroeconomic outlook

Although the BoC seems to have paused in hiking rates, the medium-term outlook is still for a period of increasing financing costs. To bring the overnight target rate closer to its historical average, the BoC is likely to increase this rate through 2021 at least, with the goal being a steady overnight rate of around 3%. In turn, the more or less steady increases in the short-term policy rate will pull up mortgage rates with a lag; the average five-year mortgage rate is currently at 4.3%, will climb to 5% by the end of 2020, and will climb more slowly to 6% by 2024. With no significant decrease in mortgage rates likely for the coming five-year period, Canada will depend more on steady income growth to build up stronger purchase demand.

In addition to the upward trend in the mortgage rate, Table 1 provides a summary of the macroeconomic outlook for the next five years. Though the current unemployment rate is a little less than 5.8%, it will climb to 6.5% by 2021 as the BoC raises short-term rates, putting a brake on total spending. Given rate hikes and the current increase in unsold inventory, residential construction will also pull back, with annualized housing starts dipping below 160,000 by the

end of 2022. With employment and output growth slowing with BoC tightening, real per capita income growth also slows after 2020.

With the direct and indirect effects of monetary tightening, house price appreciation slows down in 2020, goes briefly negative in 2021, and only recovers in the following years. Housing market effects of the 2019-2020 federal budget are not factored into the forecast as of yet, but the effects of increased ability to draw from retirement savings plans and access to shared equity mortgages from CMHC are likely to be marginal in an environment of rising mortgage rates, slowing income growth, and restricted residential construction in the largest metro areas. In coming forecasts, these new initiatives might provide some upward push for lower-priced housing markets in the Atlantic and Prairie provinces.

Lastly, the demand-reducing effects of BoC rate hikes and OSFI stress tests start to have an effect on debt sustainability. The ratio of the median dwelling price to median family income falls slightly after 2020, while the ratio of mortgage debt to disposable income falls from 1.15 currently to 1.10 by 2024, a tangible break given the upward trend for this ratio before the current year.

Regional outlook

The current regional outlook for house price appreciation is slightly better than the December forecast used for the Moody's Analytics February housing market outlook

report. In particular, house price appreciation over the coming five-year period increases slightly to 2.2%, whereas it was previously 1.9%. Over the coming year, only Montréal will have moderate house price appreciation compared with the other large metro areas, but in subsequent years there will be a partial recovery, with Toronto doing somewhat better. Vancouver house prices will dip over the next year, and the metro area will be lucky to maintain level prices through 2024 given how overvalued house and apartment prices are currently.

Table 2 shows the short-term dynamics of the regional forecasts for detached single-family house prices. The first column contains the metro area over- or undervaluation percentages seen in Chart 8. In addition to Toronto, most of the Ontario metro areas have house prices that are substantially above their long-term trends. The British Columbia metro areas, other than Kelowna, also have house prices that are much larger than warranted by their economic and demographic fundamentals. Only Edmonton and Ottawa have house prices that are seriously undervalued. In the case of Edmonton, undervaluation is the effect of a weak housing market in the wake of a recession caused by the fall in energy prices in 2015, from which the metro area is still recovering. Similarly, Ottawa went through a minor slowdown in 2013-2015, when the unemployment rate exceeded 6.5% and house prices started falling; the housing market

Table 1: Canada Housing Market, History and Baseline Forecast

| | Most | | | | | | | | |
|---|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| | recent | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| Detached single-family house price index, % change* | -0.2 | 7.5 | -0.1 | 1.2 | -0.6 | 0.9 | 3.8 | 4.6 | 4.4 |
| Condo apartment price index, % change* | 4.3 | 13.5 | 6.5 | 1.3 | -1.0 | 0.4 | 3.0 | 3.7 | 3.6 |
| Composite house price index, % change* | 0.2 | 7.2 | 0.6 | 1.0 | -1.1 | 0.5 | 3.4 | 4.2 | 4.0 |
| Real per capita disposable income, % change | -0.8 | 2.0 | 0.4 | 1.2 | 2.0 | 1.4 | 0.8 | 0.8 | 0.9 |
| Unemployment rate, % | 5.8 | 6.3 | 5.8 | 5.8 | 6.1 | 6.5 | 6.5 | 6.5 | 6.6 |
| Avg mortgage rate, 5-yr, % | 4.52 | 3.79 | 4.36 | 4.41 | 4.87 | 5.24 | 5.72 | 5.86 | 5.96 |
| Housing starts, ths | 193.5 | 220.2 | 213.2 | 195.6 | 184.1 | 168.9 | 163.6 | 158.3 | 155.0 |
| % change | -13.0 | 11.2 | -3.2 | -8.3 | -5.9 | -8.3 | -3.1 | -3.2 | -2.1 |
| Ratio, median dwelling price/median family income | 8.2 | 8.3 | 8.3 | 8.1 | 7.9 | 7.7 | 7.8 | 7.9 | 8.0 |
| Ratio, outstanding mortgage debt/disp. income | 1.20 | 1.16 | 1.17 | 1.15 | 1.12 | 1.11 | 1.10 | 1.10 | 1.10 |

*Q4, y/y

Sources: RPS, Statistics Canada, CMHC, Moody's Analytics

recovery begun in 2016 has not been strong enough to bring prices back to their long-term trend.

The second column has annualized house price growth as of the first quarter of 2019, the last with history. The persistence of house price appreciation in this quarter is an important determinant of appreciation in the coming year. Of the large metro areas, only Montréal currently has strong appreciation. Among the smaller metro areas, Trois-Rivières and Moncton have strong appreciation. For Moncton, this strong growth is likely caused by opportunistic purchases, as house prices were below trend in 2018 and earlier years. For Canada overall, persistence effects will be slightly negative given the slight depreciation in the first quarter.

The third and fourth columns show appreciation in the first and second years of the forecast, respectively. In the first year, persistence of previous house price growth plays a significant role for a region's forecast, whereas in the second year, income growth, mortgage rates, and possibly mean-reversion take over as the main forecast determinants. For Canada as a whole. the somewhat back-loaded forecast for rate hikes results in house prices falling in 2020 after increasing slightly in 2019. Something noteworthy in the columns is that despite serious overvaluations, the Ontario metro areas have only mild price declines in 2020; Toronto does not experience a price decline at all, consistent with its tight housing market even in the face of higher mortgage rates, the Ontario Fair Housing Plan, and the B-20 guideline stress test. Serious house price corrections are in store only for Saskatchewan, where Regina and Saskatoon have seriously overvalued home prices and do have a history of mean-reversion, in contrast with Ontario metro areas.

Lastly, Table 3 compares the current April forecast with the December

Table 2: Canada Subnational Forecast, Median Detached-House Price

| | 0/ | | Avg annual- | • |
|--|------------------|--------|--------------------------|---|
| | % deviation from | 0/ -1 | ized house | ized house |
| | | | price growth, %, 2019Q1- | |
| | 2019Q1* | 2019Q1 | 2020Q1 | ⁷⁰ , 2020Q2 ² 2021Q1 |
| Canada | 2017Q1 | -0.7 | 1.5 | -1.0 |
| Alberta | | -0.5 | 2.6 | -0.2 |
| Calgary, census metropolitan area | -5.3 | 0.3 | 2.6 | -2.4 |
| Edmonton, census metropolitan area | -27.8 | -2.1 | 2.4 | 1.9 |
| British Columbia | 27.0 | -6.1 | 0.2 | -2.0 |
| Abbotsford, census metropolitan area | 31.8 | -1.1 | 1.9 | -2.7 |
| Kelowna, census metropolitan area | 8.5 | -4.0 | 3.3 | -1.2 |
| Vancouver, census metropolitan area | 37.2 | -7.3 | -0.8 | -2.3 |
| Victoria, census metropolitan area | 18.0 | -5.4 | 0.1 | -2.4 |
| Manitoba | | -0.7 | -1.3 | -2.8 |
| Winnipeg, census metropolitan area | 8.1 | -1.6 | -1.8 | -3.2 |
| New Brunswick | | 5.6 | 1.0 | -1.6 |
| Moncton, census metropolitan area | 0.7 | 11.3 | 1.1 | -2.2 |
| Saint John, census metropolitan area | -2.9 | 1.6 | 1.1 | -2.1 |
| Newfoundland and Labrador | | -7.0 | -1.4 | 6.5 |
| St. John's, census metropolitan area | -5.4 | -10.1 | -2.2 | 7.5 |
| Nova Scotia | | 3.2 | 1.9 | -1.5 |
| Halifax, census metropolitan area | -5.6 | 2.6 | 2.4 | -1.3 |
| Ontario | | 0.8 | 1.4 | -0.6 |
| Barrie, census metropolitan area | 29.8 | -1.5 | 1.7 | 2.3 |
| Brantford, census metropolitan area | 31.4 | -2.2 | -2.0 | -3.0 |
| Greater Sudbury, census metropolitan area | -0.2 | -9.3 | -2.8 | -2.4 |
| Guelph, census metropolitan area | 28.9 | 6.8 | 5.0 | 3.1 |
| Hamilton, census metropolitan area | 34.6 | -1.3 | -0.9 | -2.4 |
| Kingston, census metropolitan area | -1.3 | 5.9 | 1.4 | -2.4 |
| Kitchener, census metropolitan area | 34.3 | 1.0 | -0.3 | -2.3 |
| London, census metropolitan area | 22.2 | 5.0 | 1.8 | -1.3 |
| Oshawa, census metropolitan area | 42.5 | -1.9 | 0.6 | -0.1 |
| Ottawa-Gatineau, census metropolitan area | -16.4 | 2.1 | 2.0 | 0.2 |
| Peterborough, census metropolitan area | 32.2 | 5.5 | 1.7 | -1.9 |
| St. Catharines-Niagara, census metropolitan area | | 1.1 | 1.0 | -2.8 |
| Thunder Bay, census metropolitan area | 16.2 | -4.9 | -1.2 | -2.4 |
| Toronto, census metropolitan area | 47.3 | 0.4 | 1.9 | 0.3 |
| Windsor, census metropolitan area | 11.9 | 1.4 | 0.2 | -3.2 |
| Prince Edward Island | 11., | -1.9 | -3.0 | -2.7 |
| Québec | | 6.3 | 4.0 | -0.3 |
| Montréal, census metropolitan area | 5.8 | 7.7 | 5.0 | -0.3 |
| Québec, census metropolitan area | 7.9 | | 1.9 | -1.0 |
| Saguenay, census metropolitan area | -1.6 | | 1.5 | -1.0 |
| Sherbrooke, census metropolitan area | -9.4 | | 2.2 | -0.1 |
| Trois-Rivières, census metropolitan area | 11.0 | 9.6 | 5.5 | -0.7 |
| Saskatchewan | 11.0 | -1.2 | -3.8 | -9.6 |
| Regina, census metropolitan area | 31.0 | -0.8 | -4.8 | -11.3 |
| Saskatoon, census metropolitan area | 17.8 | -1.4 | -3.9 | -9.1 |
| neeroon, consess meer opourum uncu | 17.0 | 1.1 | 3.7 | |

Note: Italicized metro areas are part of the RPS 13-metro area composite index.

*Census metropolitan areas only

Sources: RPS, Moody's Analytics

Table 3: Medium-Term House Price Outlook, Census Metropolitan Areas

Avg annualized projected single-family house price growth, %, 2019Q1-2024Q1

| | Dec 2018 forecast | Apr 2019 forecast |
|------------------------|-------------------|-------------------|
| Canada | 1.9 | 2.2 |
| St. John's | 4.0 | 6.1 |
| Guelph | 4.6 | 5.5 |
| Barrie | 5.1 | 5.2 |
| Edmonton | 4.4 | 4.2 |
| Toronto | 3.2 | 3.3 |
| Oshawa | 3.6 | 3.2 |
| Ottawa-Gatineau | 2.8 | 3.2 |
| Sherbrooke | 2.1 | 3.1 |
| Halifax | 1.7 | 2.6 |
| Montréal | 1.4 | 2.6 |
| Québec | 1.4 | 2.5 |
| Kelowna | 1.7 | 2.1 |
| London | 1.4 | 1.8 |
| Trois-Rivières | 0.6 | 1.8 |
| Kingston | 1.3 | 1.6 |
| Peterborough | 0.9 | 1.4 |
| Saguenay | 0.2 | 1.4 |
| Kitchener | 1.1 | 1.3 |
| Calgary | 0.7 | 1.2 |
| Brantford | 1.1 | 1.2 |
| Saint John | 0.4 | 1.1 |
| St. Catharines-Niagara | 0.6 | 1.1 |
| Abbotsford | 0.8 | 1.0 |
| Moncton | 0.8 | 1.0 |
| Vancouver | 1.4 | 0.9 |
| Victoria | 1.0 | 0.9 |
| Winnipeg | 0.0 | 0.8 |
| Greater Sudbury | 1.0 | 0.7 |
| Hamilton | 0.6 | 0.7 |
| Thunder Bay | -0.2 | 0.7 |
| Windsor | 0.5 | 0.5 |
| Saskatoon | 0.1 | -0.7 |
| Regina | -1.8 | -3.1 |

Note: Italicized metro areas are part of the RPS 13-metro area composite index.

Sources: RPS, Moody's Analytics

forecast used for the early-February outlook report while also looking at a longer five-year forecast horizon. House price appreciation picks up slightly for Canada in the current forecast compared with the December forecast, but there is relatively little change in the metro area rankings. The strongest five-year outlook is for Edmonton, Ottawa and St. John's—all of which have some degree of current undervaluation—and for Toronto and some of its adjacent metro areas, where insufficient supply relative to purchase demand (also called overheating

by some analysts) still edges out overvaluation as a determinant of the house price outlook.

Of course, even for the metro areas at the top of Table 3, house price appreciation is quite meek compared with what was seen in the early 2015 to early 2017 period, when year-over-year growth for detached single-family home prices reached 13% on average. The subsequent slowdown is a testament to the ability of restrictive monetary policy combined with tighter mortgage lending regulations to cool down

an overheated housing market, if not freeze it altogether.

Risks

For the smaller provinces and metro areas, the 2019-2020 federal budget has introduced some upside risk. The proposed shared equity mortgages funded by CMHC are limited to borrowers with incomes at or under C\$120,000, which limits their applicability in Toronto and Vancouver given the low affordability of housing for both metro areas. Also, the budget projects that CMHC will provide C\$1.25 billion of funding for these mortgages for a period of three years, with CMHC equity limited to 10% for new homes and 5% for existing homes. This is not a huge injection for Canada as a whole. However, for lower-priced, lower-income regions, including the Atlantic provinces, Manitoba and Saskatchewan, the shared equity mortgages combined with an increased ability to draw on retirement savings plans for down payments would add a much-needed injection in demand and would help some provinces (particularly Nova Scotia) increase their relatively low shares of homeownership.

The main downside risk is still derived from monetary policy tightening. With the average five-year mortgage rate projected to rise by a full percentage point over the next two years, it is inevitable that there will be some increase in the percentage of first mortgages in arrears. If this increase were spread out nationally, its effect on the housing market and the financial system would not be perceptible. However, if the increase in arrears were to be regionally concentrated, especially in the higher-priced metro areas and provinces, there would be repercussions for individual mortgage lenders and possible financial tremors. As always, deciding when to ease off on monetary policy rate hikes, especially for the sake of the housing market, remains a fine art subject to potential miscalculation.

Lastly, there remains the downside risk of Canada's larger than average vulnerability to

⁶ See Matt Lundy and Tom Cardoso, "Federal budget 2019 highlights: 10 things you need to know," The Globe and Mail, March 20, 2019 for a broad summary of the 2019-2020 federal budget, including housing measures.

global oil price shocks. The Moody's Analytics Low Oil Price forecast scenario, for example, has the Brent oil price falling just below US\$40 per barrel and West Texas Intermediate oil prices falling to US\$35 per barrel. The resulting income forecast hits the Prairie provinces harder in particular, and by extension house prices would suffer. In this scenario, the RPS national composite house price would fall by 4% over two years before recovering. The impact on Alberta and specifically Calgary and Edmonton would be more limited given that house prices were already hit substantially in

2015-2016, but the effect would be larger in smaller energy-dependent cities.

Overall, it is safe to say that in terms of housing market policy interventions, the worst is over and the last remaining speedbumps will be BoC rate hikes over the next two years. The slowdown in sales and residential construction is starting to drag on the economy. The real question, and one that cannot be fully resolved, is the hypothetical dynamics of the regional housing market in the absence of rate hikes, transfer taxes, tighter mortgage guidelines, and

other interventions. Despite the practical difficulties, the correct comparison of the present is not with the 2014-2016 period, when the Toronto and Vancouver housing markets were at full throttle, but with the likely demand, price and construction correction that would have taken place if affordability had become unsustainable and mortgage debt service-to-income ratios had climbed even higher. The current cooling of the housing market is therefore not really bad news, but should be seen more as a necessary consequence.

About the Author

Andres Carbacho-Burgos is an economist at the West Chester office of Moody's Analytics. He covers the U.S. housing market, residential construction, and U.S. regional economies. Before joining Moody's Analytics, he taught economics at Texas State University, where he also researched open-economy macroeconomics and income inequality. Born in Chile, he obtained his PhD and master's in economics from the University of Massachusetts at Amherst and his BA in economics from Carleton College.

About RPS Real Property Solutions



RPS Real Property Solutions is a leading Canadian provider of outsourced appraisal management, mortgage-related services, and real estate business intelligence to financial institutions, real estate professionals, and consumers. The company's expertise in network management and real estate valuation, together with its innovative technologies and services, has established RPS as the trusted source for residential real estate valuation services.

RPS is wholly owned by Brookfield Business Partners L.P., a public company with majority ownership by Brookfield Asset Management Inc. Brookfield Business Partners L.P. is Brookfield's flagship public company for its business services and industrial operations of its private equity group, which is co-listed on the New York and Toronto stock exchanges under the symbol BBU and BBU.UN, respectively. Brookfield Asset Management Inc. is a Canadian company with more than a 100-year history of owning and operating assets with a focus on property, renewable power, infrastructure and private equity. Brookfield is co-listed on the New York, Toronto and Euronext stock exchanges under the symbol BAM, BAM.A and BAMA, respectively. More information is available at www.rpsrealsolutions.com.

About the RPS - Moody's Analytics House Price Forecasts

The RPS – Moody's Analytics House Price Forecasts are based on fully specified regional econometric models that account for both housing supply-demand dynamics and long-term influences on house prices such as unemployment and changes in mortgage rates. Updated monthly and providing a 10-year forward-time horizon, the forecasts are available for the nation overall, its 10 provinces and for 33 metropolitan areas, and cover three property style categories, comprising single-family detached, condominium apartments and aggregate, in a number of scenarios: a baseline house price scenario, reflecting the most likely outcome, and six alternative scenarios.

About Moody's Analytics

Moody's Analytics provides financial intelligence and analytical tools supporting our clients' growth, efficiency and risk management objectives. The combination of our unparalleled expertise in risk, expansive information resources, and innovative application of technology helps today's business leaders confidently navigate an evolving marketplace. We are recognized for our industry-leading solutions, comprising research, data, software and professional services, assembled to deliver a seamless customer experience. Thousands of organizations worldwide have made us their trusted partner because of our uncompromising commitment to quality, client service, and integrity.

Concise and timely economic research by Moody's Analytics supports firms and policymakers in strategic planning, product and sales forecasting, credit risk and sensitivity management, and investment research. Our economic research publications provide in-depth analysis of the global economy, including the U.S. and all of its state and metropolitan areas, all European countries and their subnational areas, Asia, and the Americas. We track and forecast economic growth and cover specialized topics such as labor markets, housing, consumer spending and credit, output and income, mortgage activity, demographics, central bank behavior, and prices. We also provide real-time monitoring of macroeconomic indicators and analysis on timely topics such as monetary policy and sovereign risk. Our clients include multinational corporations, governments at all levels, central banks, financial regulators, retailers, mutual funds, financial institutions, utilities, residential and commercial real estate firms, insurance companies, and professional investors.

Moody's Analytics added the economic forecasting firm Economy.com to its portfolio in 2005. This unit is based in West Chester PA, a suburb of Philadelphia, with offices in London, Prague and Sydney. More information is available at www.economy.com.

Moody's Analytics is a subsidiary of Moody's Corporation (NYSE: MCO). Further information is available at www.moodysanalytics.com.

DISCLAIMER: Moody's Analytics, a unit of Moody's Corporation, provides economic analysis, credit risk data and insight, as well as risk management solutions. Research authored by Moody's Analytics does not reflect the opinions of Moody's Investors Service, the credit rating agency. To avoid confusion, please use the full company name "Moody's Analytics", when citing views from Moody's Analytics.

About Moody's Corporation

Moody's Analytics is a subsidiary of Moody's Corporation (NYSE: MCO). MCO reported revenue of \$4.4 billion in 2018, employs approximately 13,100 people worldwide and maintains a presence in 42 countries. Further information about Moody's Analytics is available at www.moodysanalytics.com.

© 2019 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved.

CREDIT RATINGS ISSUED BY MOODY'S INVESTORS SERVICE, INC. AND ITS RATINGS AFFILIATES ("MIS") ARE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MOODY'S PUBLICATIONS MAY INCLUDE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL, FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS AND MOODY'S OPINIONS INCLUDED IN MOODY'S PUBLICATIONS ARE NOT STATEMENTS OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. CREDIT RATINGS AND MOODY'S PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. NEITHER CREDIT RATINGS NOR MOODY'S PUBLICATIONS COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS AND PUBLISHES MOODY'S PUBLICATIONS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

MOODY'S CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS OR MOODY'S PUBLICATIONS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER.

ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the rating process or in preparing the Moody's publications.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information contained herein or the use of or inability to use any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, will-ful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY SUCH RATING OR OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSO-

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any rating, agreed to pay to Moody's Investors Service, Inc. for appraisal and rating services rendered by it fees ranging from \$1,500 to approximately \$2,500,000. MCO and MIS also maintain policies and procedures to address the independence of MIS's ratings and rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold ratings from MIS and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moodys. com under the heading "Investor Relations — Corporate Governance — Director and Shareholder Affiliation Policy."

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors. It would be reckless and inappropriate for retail investors to use MOODY'S credit ratings or publications when making an investment decision. If in doubt you should contact your financial or other professional adviser.

Additional terms for Japan only: Moody's Japan K.K. ("MJKK") is a wholly-owned credit rating agency subsidiary of Moody's Group Japan G.K., which is wholly-owned by Moody's Overseas Holdings Inc., a wholly-owned subsidiary of MCO. Moody's SF Japan K.K. ("MSFJ") is a wholly-owned credit rating agency subsidiary of MJKK. MSFJ is not a Nationally Recognized Statistical Rating Organization ("NRSRO"). Therefore, credit ratings assigned by MSFJ are Non-NRSRO Credit Ratings. Non-NRSRO Credit Ratings are assigned by an entity that is not a NRSRO and, consequently, the rated obligation will not qualify for certain types of treatment under U.S. laws. MJKK and MSFJ are credit rating agencies registered with the Japan Financial Services Agency and their registration numbers are FSA Commissioner (Ratings) No. 2 and 3 respectively.

MJKK or MSFJ (as applicable) hereby disclose that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MJKK or MSFJ (as applicable) have, prior to assignment of any rating, agreed to pay to MJKK or MSFJ (as applicable) for appraisal and rating services rendered by it fees ranging from JPY200,000 to approximately JPY350,000,000.

MJKK and MSFJ also maintain policies and procedures to address Japanese regulatory requirements.