HOUSING MARKET INFORMATION

HOUSING MARKET ASSESSMENT

Canada

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Canada

CMHC SCHL

Highlights

- The Housing Market Assessment (HMA) continues to indicate a high degree of overall vulnerability at the national level, due to moderate overvaluation and price acceleration being detected.
- Toronto's housing market remained highly vulnerable, despite the recent easing in resale market conditions. We continued to detect moderate evidence of price acceleration with strong growth in home prices among all housing types. High house prices could not be explained by fundamental economic drivers such as income and population growth, resulting in strong evidence of overvaluation.
- Hamilton's housing market was assessed as highly vulnerable for a fifth consecutive quarter. House prices continued to grow quickly and remained much higher than levels supported by economic and demographic fundamentals. For a prolonged period of time, incomes and population have not been supportive enough for the strong growth in most house price measures.
- Vancouver's housing market remained highly vulnerable, with the detection of moderate overheating and price acceleration, and a high degree of vulnerability related to overvaluation. Imbalances between demand and supply persisted in the resale home market, especially for multi-family units.
- Victoria's overheating persisted due to continued elevated sales for apartments and townhomes in the resale market, but very low inventories of unsold homes in the new home market to support the strong demand for these types of units.
- The imbalance related to overbuilding is low at the national level, however there are growing concerns of overbuilding in Calgary, Edmonton and St. John's specifically due to higher levels of new and unsold homes compared to the demand for these units.

What is CMHC's Housing Market Assessment?

The objective of CMHC's Housing Market Assessment (HMA) is to identify locations in which there is a heightened vulnerability to housing market stability from the level of house prices or from factors that are known to influence future house prices.

The HMA is an analytical framework that provides a comprehensive view of housing market vulnerability, relying on a combination of signals from a number of indicators of housing market conditions in several metropolitan areas across Canada, and for Canada as a whole[1].

Specifically, the framework considers four main factors with different possible degrees of vulnerability[2] that may provide an early indication of imbalances in housing markets:

1. **Overheating** or sales greatly outpacing new listings in the market for existing homes;
   - **Moderate:** sales-to-listings ratio was above the threshold that identifies an imbalance for at least 2 quarters over the past 3 years
   - **Low:** otherwise
2. Sustained **acceleration** in house prices;
   - **Moderate:** the ADF test statistic was above the critical threshold for at least one quarter during the past 3 years
   - **Low:** otherwise

[1] The data for Canada includes areas beyond the 15 Census metropolitan areas covered in this report.

[2] The colour scale extends to red only for those factors that have multiple indicators that can identify imbalances. As a result, only overvaluation and overbuilding can receive a red rating, since they are asses yellow, and red).

3. **Overvaluation** of house prices in comparison to levels that can be supported by housing market fundamentals such as personal disposable income, population and/or interest rates.
   - **High:** the average of the gaps of house prices relative to the ones that are estimated by a model using fundamental variables was above the critical threshold for at least two quarters during the past year
   - **Moderate:** at least one of these models showed overvaluation
   - **Low:** only one or none of the selected models was above the threshold during the past year
4. **Overbuilding:** High rental market vacancy rate and/or high inventory of newly built housing units that are unsold.
   - **High:** the inventory of newly completed and unsold homes was above its threshold and the rental apartment vacancy rate was above its threshold (for at least two quarters during the past year)
   - **Moderate:** at least one of the above indicators was above its threshold (for at least two quarters during the past year)
   - **Low:** none of the previous conditions was present

Overall assessment[3]

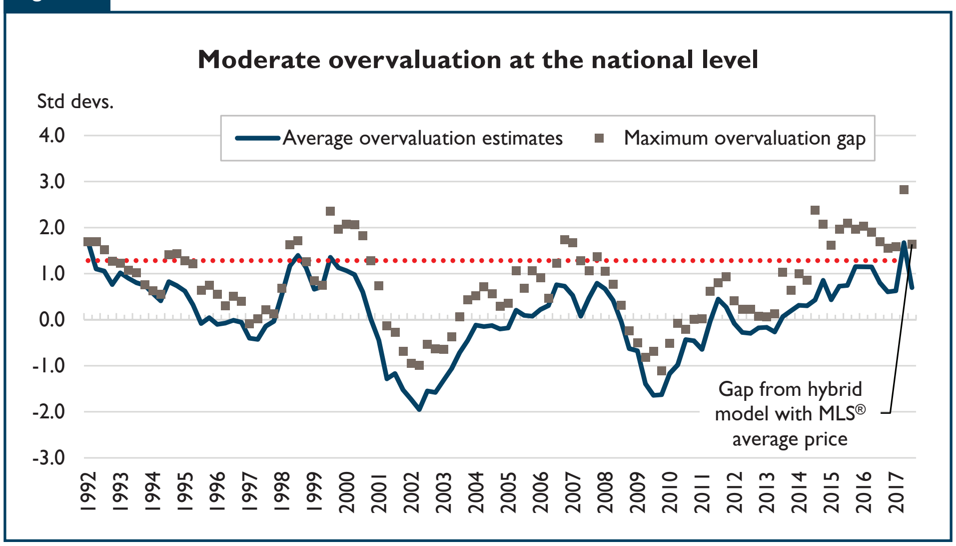
- **High:** reflects a situation where more than one factor of price acceleration, overvaluation or overbuilding exhibits moderate or strong evidence of imbalance.
- **Moderate:** can reflect a variety of cases. The first case is when only one of the factors of overbuilding or overvaluation are assessed as red. Another case is when only one factor is showing moderate vulnerability and we have concerns about another factor that has not technically crossed the threshold for moderate evidence of that specific vulnerability.
- **Low:** applies to all other situations. For example, it can reflect a situation where only one factor shows moderate imbalance.

HMA Results for Canada and 15 Census Metropolitan Areas

Canada: High degree of vulnerability

Canada's housing market remains at a high degree of vulnerability due to a combination of moderate price acceleration and overvaluation. Figure 1 shows the evolution of the average overvaluation gap, as well as the maximum overvaluation gap from selected models. The gap indicates how far the observed price is from the housing price that is supported by fundamental factors such as population and income. There remains moderate overvaluation,

Figure 1



Sources: CREA, Statistics Canada and calculations by CMHC.
Note: A standard deviation larger than 1.29 is considered as significant. 10% of observation are above the threshold.

[3] The framework was tested against CMHC's mortgage insurance claims rate. The results show that the detection of more than one HMA factor is more problematic for insurance claims than the detection of just one factor. Therefore, the individual factors are jointly analysed to provide an overall assessment of the state of a given housing market, which is rated on our three-coloured scale (green, yellow, and red).

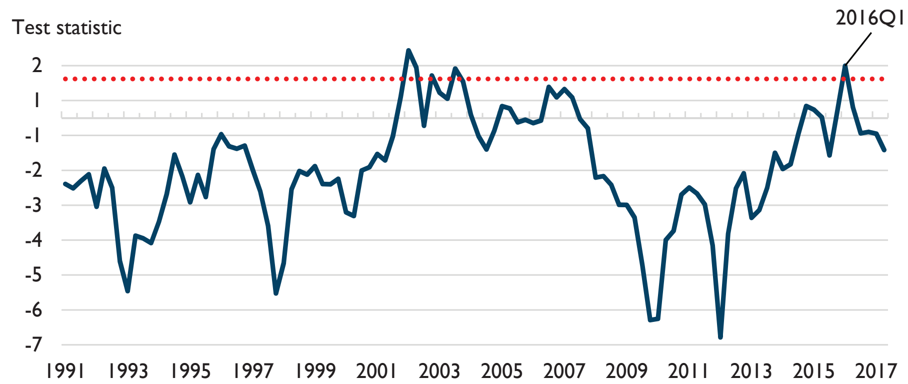
as the maximum gap from all the models that we estimate was above the threshold since the end of 2014.

Overvaluation subsided from the first to the second quarter of 2017, since population and income growth accelerated compared to the lower growth registered in the first quarter. In the second quarter of 2017, real income growth was above inflation and the unemployment rate is currently at the lowest level since 2008. While growth in the MLS® average price has slowed to just under a year-over-year rate of 5%, the other price indices we monitor[4] are growing at their fastest pace in almost 10 years. In Q2 2017, the test statistic for price acceleration (Figure 2) was below the threshold, but moderate price acceleration is nevertheless detected due to the persistence criteria: once price acceleration is detected, it takes 12 quarters of low evidence of price acceleration before the assessment of the vulnerability is downgraded.

Regional disparities remain, as strong imbalances are observed in Western Canada and Southern Ontario, while overbuilding is ramping up in Alberta and in some CMAs in the East. CMAs in Atlantic Canada and Québec are showing low housing market vulnerability according to the HMA framework.

Figure 2

Price acceleration still detected under the persistence rule



Source: CREA and calculations by CMHC. Note: The test is done using the MLS® average price. Other price indices are also monitored.

Victoria: High degree of vulnerability

Victoria CMA housing market trends continued to indicate a high degree of vulnerability. Single-detached home sales declined, nudging the market towards balanced conditions, but overheating persisted due to continued elevated sales volumes for apartments and townhomes. In all parts of the market, low inventories continue to be an issue. Although there was an improvement in population and employment growth, high evidence of overvaluation persisted in the Victoria CMA.

Vancouver: High degree of vulnerability

The HMA framework continued to detect a high degree of vulnerability in Metro Vancouver's housing market. Moderate evidence of overheating persisted, as imbalances remained between demand and supply in the resale home market. In particular, demand has been strong for multi-family units, in large part due to their relative affordability compared with single-detached homes, which has resulted in low inventories of newly built apartment condominiums and townhomes. While economic fundamentals such as employment and population growth have been strong, they cannot fully explain the continued growth in real house prices, resulting in the continued detection of overvaluation in the market. Builders have responded to the demand for homes and low vacancy rates across the Vancouver CMA, and a record number of primary rental apartment units are currently under construction. However, low evidence of overbuilding continued to be detected, as the number of completed and unsold units remained low across the Vancouver CMA.

Edmonton: Moderate degree of vulnerability

Evidence of overbuilding in the Edmonton housing market increased from moderate to high as imbalances in both the ownership and rental markets were detected. The inventory of completed and unsold units, mainly concentrated in the multi-family sector, moved above the level indicating overbuilding in the ownership market. In the rental market, the apartment vacancy rate breached its threshold level in 2016 as increasing rental

[4] Other price indices include the Teranet-National Bank House Price Index and the New House Price Index from Statistics Canada.

supply outpaced demand. Low evidence of overheating, price acceleration and overvaluation all continued as their respective indicators remained below threshold levels.

Calgary: Moderate degree of vulnerability

The evidence of overbuilding is high in the Calgary housing market. Combined with an elevated rental apartment vacancy rate, the number of completed and unsold units per 10,000 population have increased well above historical averages. Demand for newly completed units declined due to the economic slowdown, contributing to a rise in inventories in the last couple of years. While the imbalance for overbuilding has increased from the previous assessment, the evidence for overheating, price acceleration, and overvaluation, continued to remain low.

Saskatoon: High degree of vulnerability

Stable house prices and continued economic and demographic growth have improved valuations, but not sufficiently to change our assessment of moderate evidence of overvaluation. In addition, we continue to detect high evidence of overbuilding as the inventory of completed and unsold units remained well above the framework's threshold, largely due to condominium apartments in the multiples sector.

Regina: Moderate degree of vulnerability

We continue to detect low evidence of overvaluation, with house prices remaining largely supported by economic and demographic fundamentals. However, our framework detected high evidence of overbuilding in Regina's new home market where the inventory of completed and unsold units remained above the threshold, in large part due to the multiples sector.

Winnipeg: Moderate degree of vulnerability

The HMA framework continued to detect a moderate degree of vulnerability in the Winnipeg CMA housing market due to moderate overbuilding. However, the inventory of complete and unsold units declined for the second consecutive quarter. There has also been noticeable construction in the rental market, though a relatively low vacancy rate is supportive of an increase in rental construction activity. The framework continued to detect weak evidence of imbalances for all other indicators as the Winnipeg market is supported by economic fundamentals and balanced market conditions.

Hamilton: High degree of vulnerability

For the fifth consecutive quarter, the HMA framework detected a high degree of vulnerability in the Hamilton housing market. The assessment was due to evidence of overvaluation remaining high along with moderate evidence of price acceleration. House prices in Hamilton continued to grow quickly in the second quarter and remained much higher than levels supported by economic and demographic fundamentals, such as personal disposable income and population growth. For a prolonged period of time, incomes and population have grown far less than a number of house price measures for Hamilton. Evidence of overheating remained moderate. The overall resale market was balanced in the second quarter, with only the market for apartments remaining in seller's territory.

Toronto: High degree of vulnerability

Sales in the Greater Toronto Area (GTA) have declined strongly from their record levels registered earlier this year while the supply of new listings reached an all-time high, bringing down the sales-to-new listings ratio in 2017Q2 to 0.45. This follows six consecutive quarters of the sales-to-new listings ratio being above the threshold of 0.70. However, given that this change has only persisted for just one quarter so far, we continue to detect moderate evidence of overheating. The imbalance was most evident for resale single-detached homes, which saw the sales-to new listings ratio dropping to 0.38, compared to 0.60 for condominium apartment units. A threshold above 0.60 is consistent with seller's market conditions. Despite easing market conditions, we continue to detect moderate evidence of price acceleration in 2017Q2. The average MLS® house price increased by 16% on a year-over-year basis in Q2 2017. Sustained evidence of price acceleration reflects higher price growth among all housing types, with the average condominium apartment price growth outpacing that of single-detached homes in 2017Q2. While the rate of house price growth has slowed, prevailing high house prices could not be explained by fundamental economic drivers such as income and population growth. We continue to detect high evidence of overvaluation. Low evidence of overbuilding was detected in 2017Q2, as the number of completed and unsold units remained stable and well below the threshold. Strong condominium and rental demand continued to help absorb excess supply.

Ottawa: Low degree of vulnerability

We continue to detect moderate evidence of overbuilding in Ottawa due mostly to an elevated number of completed and unsold condominium apartments. Nonetheless, this number has been almost steadily declining since mid-2016, pointing to improved demand conditions for such dwellings. Demand for resale condo apartments also expanded strongly in the first half of the year and into recent months. However, the number of condo apartments under construction inched up once more in Q1-2017, but has been gradually trending down. Inventory management remains necessary until the unsold units are absorbed by buyers. We detect low evidence of overheating, price acceleration and overvaluation as the Ottawa market is supported by steady employment and earnings growth.

Montréal: Low degree of vulnerability

The degree of vulnerability of the Montréal CMA housing market remained low for a third straight quarter. While market tightening is putting greater pressure on house prices, there is little evidence of acceleration in the growth of prices, for the moment. As well, the increase in personal disposable income, combined with accelerated population growth among young adults, indicates that house prices have remained at levels supported by fundamentals.

As for indicators of overbuilding, the inventory of completed and unsold condominiums continued to decline during the second quarter of 2017.

Québec: Low degree of vulnerability

The overall degree of vulnerability of the Québec CMA housing market went from moderate to low during the second quarter of 2017. Evidence of overbuilding remains moderate. Indeed, the number of conventional rental apartments under construction or recently completed remains high relative to demand. This is putting upward pressure on the vacancy rate, particularly for newly built projects. Evidence of overvaluation, meanwhile, has declined from moderate to weak. This development is attributable to the strengthening of the area's job market over the last few quarters, the relative stability of residential property prices, and a much-weaker-than-anticipated downward trend in the population aged 25 to 34.

Moncton: Low degree of vulnerability

We detect low evidence of overheating in Moncton's existing home market. The MLS® sales-to-new-listings ratio has increased dramatically over the past year, however at 60%, it remains below the threshold for overheating. A tighter existing home market helped push Moncton's MLS® House Price Index up 5.7% during the second quarter. Nevertheless, the evidence of price acceleration remains low.

Halifax: Low degree of vulnerability

The MLS® market in Halifax experienced strong sales and price growth in Q2 2017, both on a quarter-over-quarter and year-over-year basis. While sales have expanded, new listings on the market have continued to decline, falling to the lowest point since Q1 2004. Although still below the threshold, the sales-to-listings ratio increased to 65% this quarter, the highest point in close to five years. In comparison to last quarter, average MLS® prices have increased by close to 7% in Q2 2017, with price growth apparent across the Halifax CMA submarkets, requiring close monitoring.

St. John's: Low degree of vulnerability

Year-over-year house price declines have subsided year-to-date with price stability emerging within the resale market in recent months. Despite ongoing declines in housing starts, the inventory of completed and unsold units relative to the population increased to 5.8 in the second quarter of 2017 from 4.3 during the first quarter. Previous to this, the inventory of completed and unsold units relative to the population had declined for five straight quarters. Nevertheless, we now detect moderate evidence of overbuilding. Weaker relative housing market activity overall is attributed to a lack of economic growth, slow growth in the young-adult population and declines in real personal disposable income in line with labour market pressures and economic weakness during the second quarter.

Table 1

Comparisons between the July 2017 and October 2017 reports

	Overheating		Price Acceleration		Overvaluation		Overbuilding		Overall Assessment	
	Jul.17	Oct.17	Jul.17	Oct.17	Jul.17	Oct.17	Jul.17	Oct.17	Jul.17	Oct.17
Canada	Low	Low	Moderate	Moderate	Moderate	Moderate	Low	Low	High	High
Victoria	Moderate	Moderate	Moderate	Moderate	High	High	Low	Low	High	High
Vancouver	Moderate	Moderate	Moderate	Moderate	High	High	Low	Low	High	High
Edmonton	Low	Low	Low	Low	Low	Low	Moderate	High	Moderate	Moderate
Calgary	Low	Low	Low	Low	Low	Low	Moderate	High	Moderate	Moderate
Saskatoon	Low	Low	Low	Low	Moderate	Moderate	High	High	High	High
Regina	Low	Low	Low	Low	Low	Low	High	High	Moderate	Moderate
Winnipeg	Low	Low	Low	Low	Low	Low	Moderate	Moderate	Moderate	Moderate
Hamilton	Moderate	Moderate	Moderate	Moderate	High	High	Low	Low	High	High
Toronto	Moderate	Moderate	Moderate	Moderate	High	High	Low	Low	High	High
Ottawa	Low	Low	Low	Low	Low	Low	Moderate	Moderate	Low	Low
Montréal	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
Québec	Low	Low	Low	Low	Moderate	Low	Moderate	Moderate	Moderate	Low
Moncton	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
Halifax	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
St. John's	Low	Low	Low	Low	Low	Low	Low	Moderate	Low	Low

Degree of market vulnerability Low Moderate High

Note 1: Colour codes indicate the degree of market vulnerability. The HMA reflects a comprehensive framework that not only tests for the presence or incidence of signals of imbalances (that is, how far the indicator is from its historical average), but also considers the intensity and the persistence of these signals over time. Generally, low intensity and persistence are associated with a lower vulnerability. As the number of persistent signals increases, the evidence of an imbalance increases.

Note 2: Results at the CMA level are not segmented by housing type or neighbourhood. They represent an assessment of the entire CMA. However, specific CMA reports provide further detailed analysis of these markets.

Note 3: The colour scale extends to red only for those factors that have multiple indicators that can identify imbalances. As a result, only overvaluation and overbuilding can receive a red rating, since they are assessed using more than one indicator.

Note 4: To ensure the framework is as current as possible, on a regular basis, we undertake a model selection process whereby our house price models for overvaluation are tested for statistical significance at the national and CMA level. The result of this process may change the number of indicators showing vulnerability from the previous assessment.

Overview of the Housing Market Assessment analytical framework

To obtain an accurate picture of the overall state of the housing market, it is important to consider multiple data points and lines of evidence rather than relying on just one measure or indicator.

The Housing Market Assessment (HMA) analytical framework provides a comprehensive and integrated view that relies on a combination of signals from several indicators to detect imbalances in housing markets.

Specifically, the framework considers four main factors that may provide an early indication of vulnerability in the housing market: (1) overheating (when demand outpaces supply); (2) sustained acceleration in house prices; (3) overvaluation of house prices in comparison to levels that can be supported by housing market fundamentals (listed below); and, (4) overbuilding (when the inventory of available housing units is elevated).

For each factor, the framework tests for: (1) the incidence of signs of vulnerability, but also considers; (2) the intensity of the signals, i.e. how their magnitude compares with their historical average or how consistent they are with known or suspected house price bubbles, such as for Toronto in the late 1980s and early 1990s; and, (3) the persistence of signals over time.

Generally, a situation in which we detect few signals with low intensity or lack of persistence is associated with a low degree of vulnerability. Conversely, as the intensity, number, and/or persistence of the signals increases, so does the evidence of imbalances in the housing market.

The framework takes into account demographic, economic, and financial determinants of the housing market such as population, personal disposable income, and interest rates to detect vulnerability. The framework also takes into account developments in both resale and residential construction markets.

The framework was developed on the basis of its ability to detect vulnerable housing market conditions in historical data, such as the house price bubble Toronto experienced in the late 1980s and early 1990s. The ability of the HMA to detect vulnerabilities relies on the assumption that historical relationships between prices and fundamental drivers of housing markets have not changed.

Housing Market Assessment Factors

Overheating

Overheating is caused by demand significantly and persistently outpacing the supply of housing. The sales-to-new listings ratio is used as an indicator to assess possible overheating conditions in the existing home market. To identify signs of overheating, the framework compares the sales-to-new listings ratio to thresholds. When demand is strong relative to supply, house prices typically grow at a faster rate. Sustained overheating on the existing home market may lead to acceleration in house prices for existing and new homes. However, as supply and demand begin to balance out, indicators of overheating (and acceleration) would begin to soften and house prices would gradually moderate.

Acceleration in House Prices

Under balanced market conditions, house prices are expected to increase over time, in line with increases in households' cost of living. House price acceleration occurs when the growth in house prices strengthens over time on a persistent basis. Acceleration in house prices over an extended period can cause their pace of increase to depart from the overall price inflation and eventually lead to overvaluation.

To assess acceleration in house prices, the HMA framework uses a statistical test* that was developed to identify periods of accelerating asset prices.

Overvaluation

Overvaluation is detected when house prices remain significantly above the levels warranted by fundamental drivers of housing markets such as income, population, and actual and expected financing costs.

The HMA framework uses combinations of different house price measures and models to estimate house price levels warranted by fundamental drivers. The difference between observed house prices and their estimated levels consistent with housing market fundamentals allows for an estimation of the degree of over- and undervaluation. The use of different price measures and models improves the reliability of results.

Overbuilding

Overbuilding is detected when the supply of readily available housing units significantly exceeds demand. In such a context, downward pressure on house prices would occur until the excess supply is eventually absorbed. To assess signs of overbuilding in the housing market, the HMA framework uses two indicators that relate to the supply of readily available housing units: the rental vacancy rate, and the inventory of completed and unsold housing units per 10,000 population. The HMA framework compares the current level and recent trends in these indicators with thresholds.

* See Phillips, Wu and Yu (2008) "Explosive Behaviour in the 1990s NASDAQ When Did Exuberance Escalate Asset Values?" for further details on the methodology.

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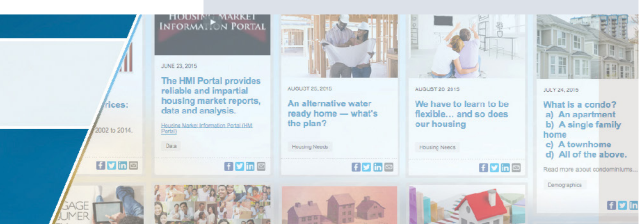

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