

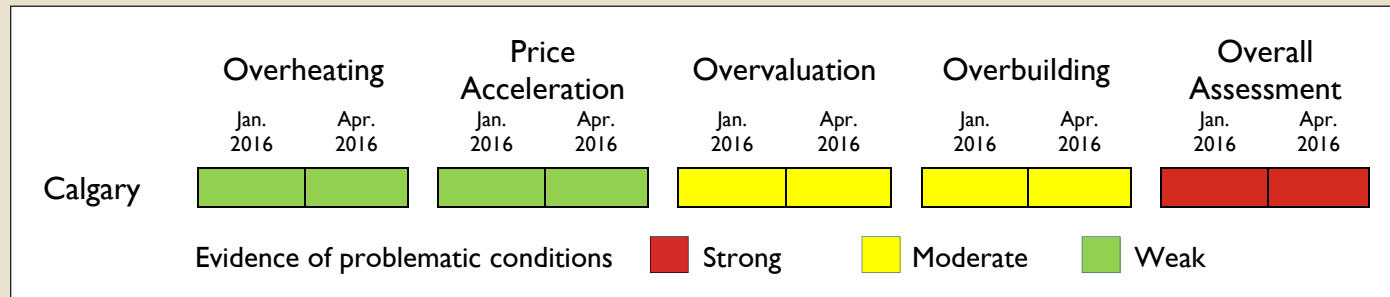
HOUSING MARKET ASSESSMENT Calgary CMA

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Highlights



- Our Housing Market Assessment (HMA) framework detects strong evidence of problematic conditions, due to a combination of moderate evidence of overvaluation and overbuilding.¹
- A deterioration of economic fundamentals have contributed to moderate evidence of overvaluation.
- A pronounced increase in the vacancy rate, due to weaker rental demand and more rental supply, has led to moderate evidence of overbuilding.
- Factors such as overheating and price acceleration continued to show weak evidence of problematic conditions.
- The Housing Market Assessment (HMA) analytical framework considers four factors to assess the evidence of problematic housing market conditions: overheating; acceleration in the growth of house prices; overvaluation; and, overbuilding. A brief summary of the framework is presented on page 5 of this report.

HMA Overview²

As Canada's authority on housing, CMHC contributes to market stability by providing information on potential imbalances that could affect housing markets. With the Housing Market Assessment (HMA), CMHC offers information and analysis that can help Canadians make more informed decisions.

The HMA combines the results from a technical framework with insights gained through CMHC's Market Analysts' knowledge of local market conditions. These insights position CMHC to provide additional context and interpretation to the results of the HMA framework.

The HMA framework detects problematic market conditions in local housing markets by identifying imbalances. An example would be the detection of overbuilding, a situation in which the inventory of unsold new homes accumulates due to supply outpacing demand. Such an imbalance could be resolved by an adjustment in house prices. As an example, lower prices would help resolving an excess supply imbalance by supporting stronger demand and/or reducing supply. However, other unexpected development that do not originate from the housing market could accentuate or reduce an imbalance.

Colour codes indicate the level of evidence of problematic conditions.

The HMA is a comprehensive framework that considers the intensity of signals of imbalances (that is, how far the indicator is from its historical average), and the persistence over time. Generally, low intensity and persistence are associated with potential weaker evidence of problematic conditions. As the number of intense and persistent signals increases, the associated evidence of problematic conditions becomes stronger.

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¹ Results are based on data as of the end of December 2015 and local market intelligence up to end of March 2016. CMHC continuously monitors market developments and will issue HMA updates on a quarterly basis.

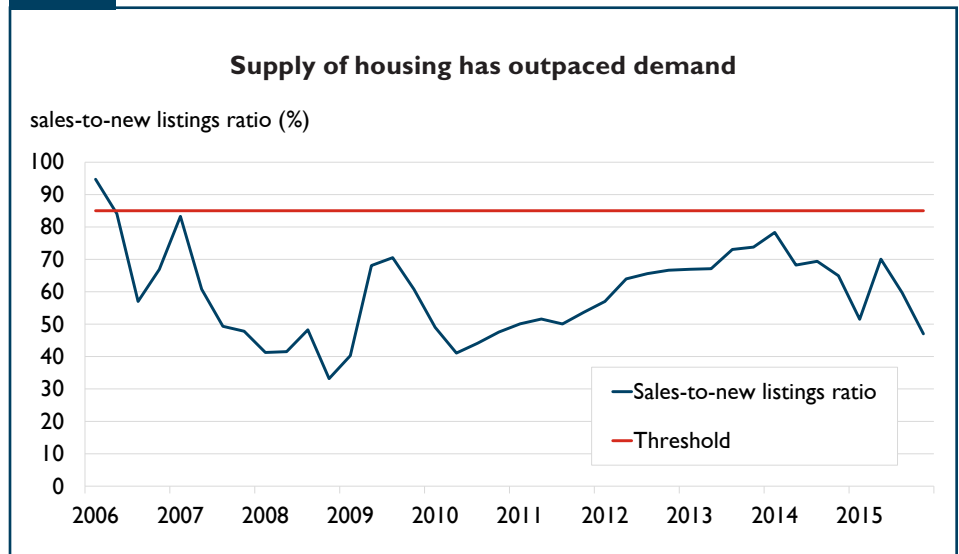
² A detailed description of the framework is available in the appendix of the [National edition](#).

In Detail

Overheating

Our HMA framework continue to detect weak evidence of overheating in Calgary as demand for housing did not outpace supply. Sales-to-new listings ratio moved lower and remains below the threshold for overheating conditions, while sales volumes declined, days-on-market increased, active listings rose and prices decreased. The seasonally adjusted sales-to-new listings ratio in the fourth quarter of 2015 was 47 per cent compared to 65 per cent in previous quarter. The pace of sales in the second half of the year moderated while new listings rose, pushing down the sales-to-new listings ratio. While resale activity in most areas across the Calgary CMA slowed down, the declines were more pronounced in the City of Calgary. The sales-to-new listings ratio in the fourth quarter was the lowest among apartments in the City of Calgary at 41 per cent compared to detached homes at 64 per cent.

Figure 1



Source: CREA, calculations (threshold) by CMHC
Last data point: 2015Q4

Price Acceleration

Price growth in Calgary slowed down in 2015 as the market favoured the buyer. As such, we continue to detect weak evidence of price acceleration. The slowdown in the economy, primarily in the energy sector, has led to job losses and reduced confidence in the market.

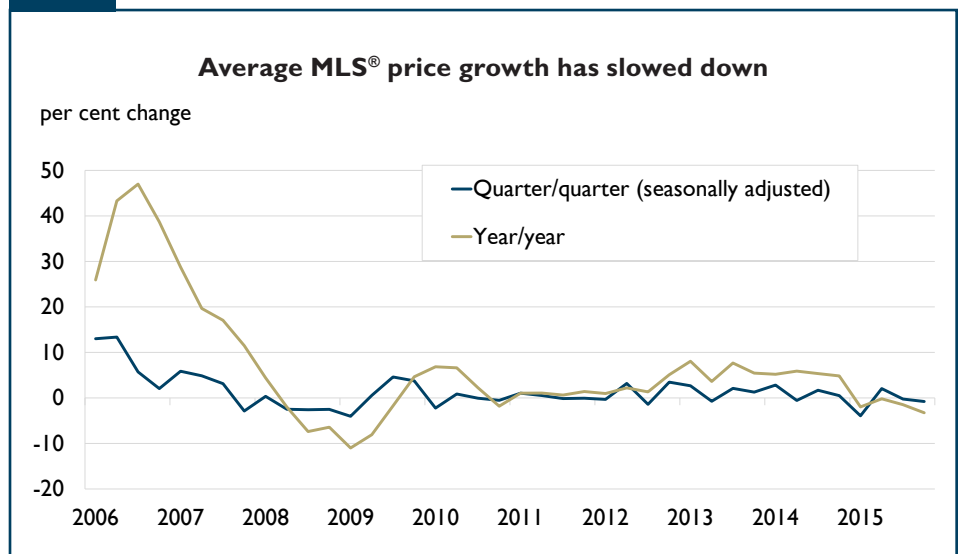
This has moderated housing demand while supply in the resale market has risen. Buyers are under less pressure to make a quick purchasing decision compared to the previous year, and have more opportunities to negotiate lower prices. In the third and fourth quarter of 2015, the average MLS® price declined 1.5 and 3.3 per cent, respectively, from the corresponding

“Low oil prices have deteriorated economic fundamentals, contributing to moderate evidence of overvaluation and overbuilding detected in Calgary.”



Richard Cho
Principal, Market Analysis (Calgary)

Figure 2



Source: CREA
Last data point: 2015Q4

period in 2014. In particular, apartment price growth in the City of Calgary was weaker compared to other housing types. The average apartment price in 2015 was down 4.6 per cent year-over-year, while detached homes and attached housing declined 3.6 and 2.5 per cent.

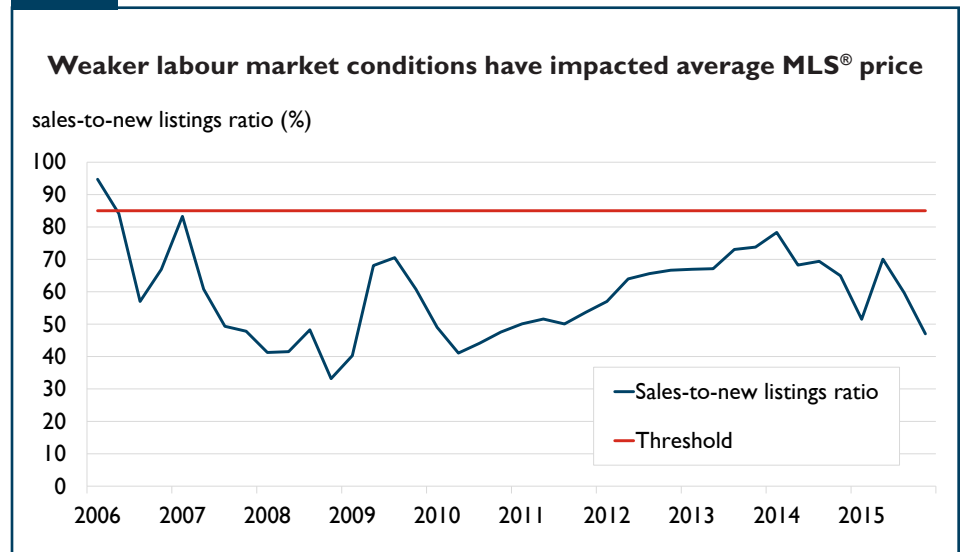
Overvaluation

House prices in Calgary have not moved in line with economic and demographic fundamentals, supporting our assessment of moderate evidence of overvaluation. Low oil prices and weak economic activity have contributed to full-time job and income losses and reduced consumer sentiments, moderating housing demand. Deteriorating labour market and income conditions are attracting less migrants to the region. For instance, the seasonally adjusted unemployment rate in Calgary averaged seven per cent in the fourth quarter of 2015 compared to 4.7 per cent in the fourth quarter of 2014. While resale prices in Calgary have softened, they declined by less than the price warranted by economic fundamental factors, supporting the moderate evidence of overvaluation.

Overbuilding

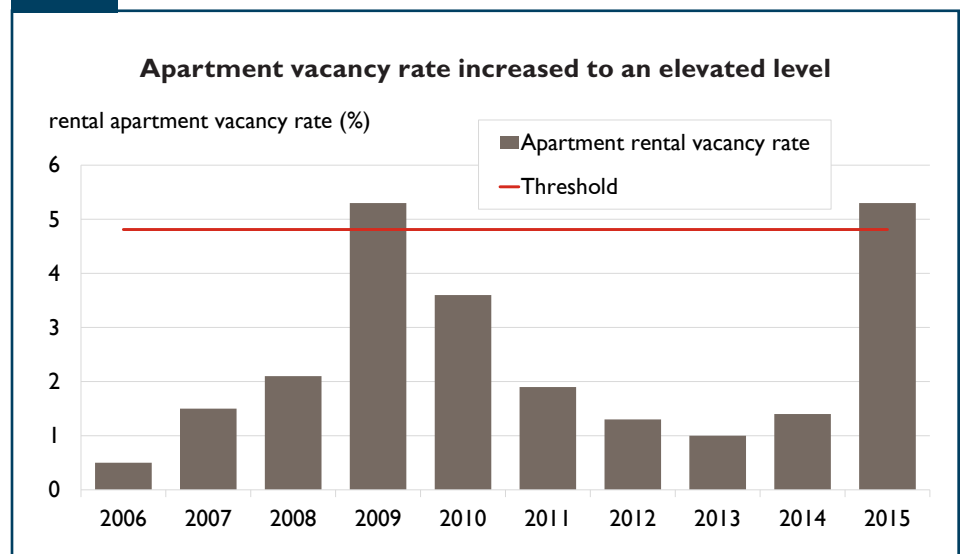
We detected moderate evidence of overbuilding in Calgary as the vacancy rate rose to an elevated level, surpassing the problematic threshold. Job losses in the energy industry, and lower levels of net migration impacted demand for rental accommodations. In addition, the completion of new purpose-built rental units and competition from the secondary rental market have also put upward pressure on the purpose-built rental vacancy rate. In October 2015 the purpose-built apartment vacancy rate rose to 5.3 per cent, up from 1.4 per cent in October 2014.

Figure 3



Source: CREA, Statistics Canada
Last data point: 2015Q4

Figure 4



Source: CMHC, calculations (threshold) by CMHC
Last data point: October 2015

Total new home inventories have increased but have yet to reach elevated levels. However, there is the potential for inventories to quickly rise as the number of units under construction is above historical averages. A majority of the units under construction are apartment units while the number of single-

detached units underway has been relatively low. As such, the upward pressure on inventories will largely be felt by the apartment segment.

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 assess housing market conditions.

Specifically, the framework considers four main factors that may provide an early indication of potentially problematic housing market conditions: (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 presence or incidence of signals of potentially problematic conditions, 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 weak evidence of problematic conditions. Conversely, as the intensity, number, and/or persistence of the signals increases, the likelihood of a factor becoming problematic increases.

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 potentially problematic housing market conditions. 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 problematic 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 current problematic conditions 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 problematic overheating conditions, 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 conditions 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 overbuilding conditions 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.

Note 1: Colour codes indicate the level of evidence of problematic conditions. The HMA reflects a comprehensive framework that not only tests for the presence or incidence of signals of potentially problematic conditions, but also considers the intensity of signals (that is, how far the indicator is from its historical average) and the persistence of signals over time. Generally, low intensity and persistence are associated with a lower potential of upcoming problematic conditions. As the number of persistent signals increases, the evidence of a problematic condition developing 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 signaling significant incidence, intensity and persistence of potentially problematic conditions. 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 of a problematic condition from the previous assessment.

* 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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