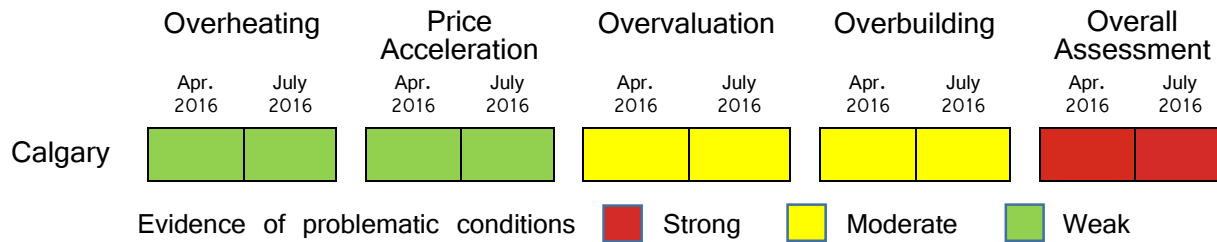# HOUSING MARKET ASSESSMENT
Calgary CMA

Date Released: Third Quarter 2016

Housing market intelligence you can count on

Canada

CMHC◆SCHL

Highlights

	Overheating		Price Acceleration		Overvaluation		Overbuilding		Overall Assessment	
	Apr. 2016	July 2016	Apr. 2016	July 2016	Apr. 2016	July 2016	Apr. 2016	July 2016	Apr. 2016	July 2016
Calgary	🟩	🟩	🟩	🟩	🟨	🟨	🟨	🟨	🟥	🟥

Evidence of problematic conditions   🟥 Strong   🟨 Moderate   🟩 Weak

- Overall, CMHC's HMA framework detected strong evidence of problematic conditions due to a combination of moderate evidence of overvaluation and overbuilding.[1]

- Moderate evidence of overvaluation was detected as house prices have not been fully supported by economic and demographic fundamentals.

- The vacancy rate in October 2015 rose above the problematic threshold, leading 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 6 of this report.

HMA Overview[2]

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 developments 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.

---

[1] Results are based on data as of the end of March 2016 and local market intelligence up to end of June 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.

Generally, low intensity and persistence are associated with potentially weaker evidence of problematic conditions. As the number of intense and persistent signals increases, the associated evidence of problematic conditions becomes stronger.

In Detail

Overheating

In Calgary, there continues to be weak evidence of overheating in CMHC's HMA framework. Demand for housing has been muted due to job losses and slower income growth. Seasonally adjusted sales in the first quarter of 2016 declined eight per cent from the previous quarter and down 10 per cent year-over-year. While housing demand has moderated, new listings have also declined and the balance between supply and demand has not changed significantly. The sales-to-new listings ratio, on a seasonally adjusted basis, was 48 per cent in the first quarter of

"Full-time job losses, weaker income growth, and slower population growth among young adults have impacted economic and demographic fundamentals. This has contributed to moderate evidence of overvaluation and overbuilding in Calgary."

Richard Cho
Principal, Market Analysis (Calgary)

Figure 1

Housing market conditions continue to favour the buyer

ratio (%)
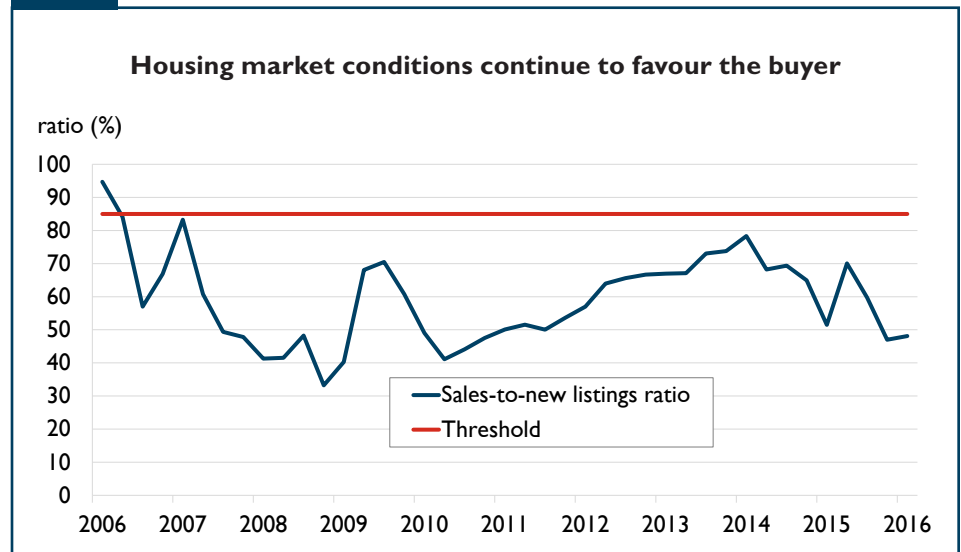
Source: CREA, calculations (threshold) by CMHC
Last data point: 2016Q1

2016 compared to 47 per cent in the fourth quarter of 2015. This is well below the threshold of overheating conditions of 85 per cent.
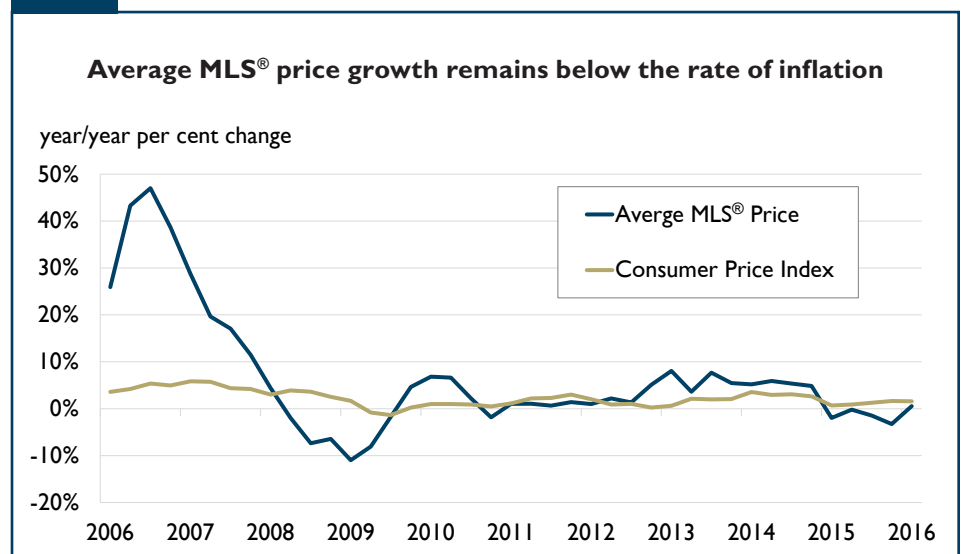
Among the different housing types in the City of Calgary, the sales-to-new listings ratio has been the lowest for apartments. This can be attributed to the pronounced decline in apartment sales. In the first quarter, the sales-to-

new listings ratio was 29 per cent for apartments, compared to 44 per cent for single-detached units and 37 per cent for attached units.
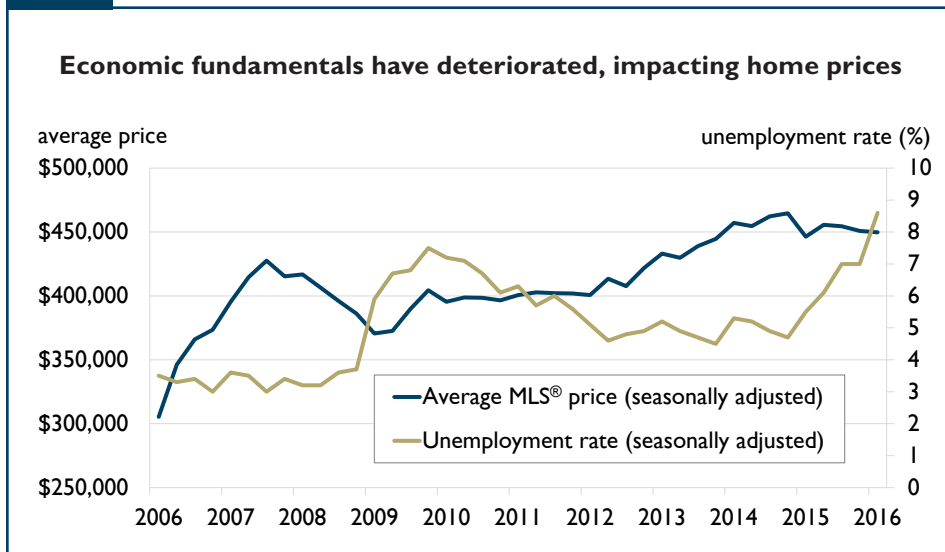
Price Acceleration

House prices in Calgary have been weighed down by slower economic conditions and a struggling labour market. While housing demand

Figure 2

Average MLS® price growth remains below the rate of inflation

year/year per cent change

Source: CREA
Last data point: 2016Q1

Figure 3

Economic fundamentals have deteriorated, impacting home prices

average price   unemployment rate (%)

[Chart showing Average MLS® price (seasonally adjusted) and Unemployment rate (seasonally adjusted), with left axis from $250,000 to $500,000 and right axis from 0 to 10, years 2006 to 2016]

Average MLS® price (seasonally adjusted)

Unemployment rate (seasonally adjusted)

Source: CREA, Statistics Canada
Last data point: 2016Q1

has weakened, active listings in the resale market and inventories in the new home market have increased, providing buyers' more selection. Following four consecutive quarters of year-over-year declines, the average MLS® rose only 0.5 per cent in the first quarter of 2016. Price growth has remained below the rate of inflation. The results from the HMA framework detected weak evidence of price acceleration.

Price growth in the City of Calgary has been modest among all housing types. The average price for a single-detached home was $536,786 in the first quarter, up slightly from $534,896 in the same quarter in 2015. While the average single-detached price in the first quarter posted positive gains, attached housing and apartment prices declined 1.5 and 3.1 per cent, respectively, from the corresponding period a year earlier. The sales-to-new listings ratio has been stronger for single-detached units while the ratio for attached housing and apartments has been in buyers' territory.
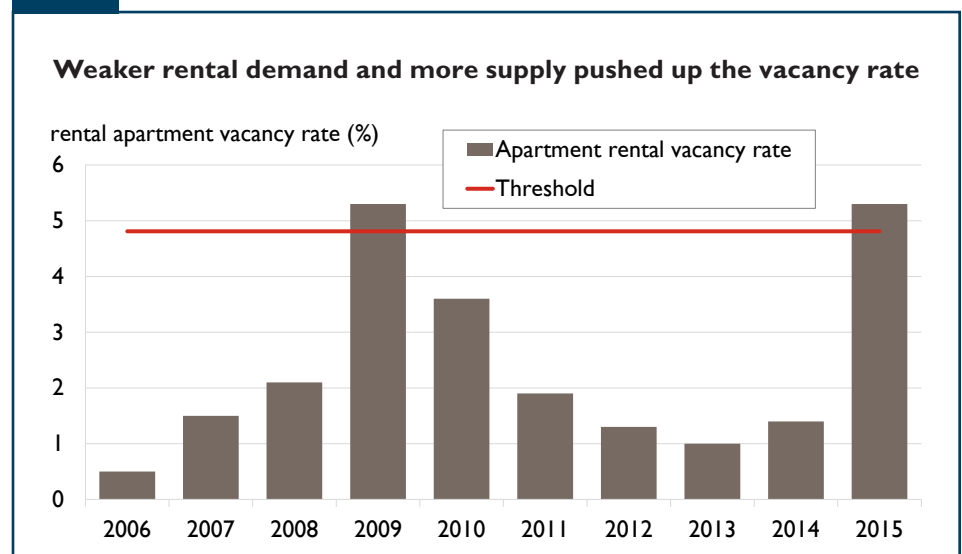
Overvaluation

In Calgary, moderate evidence of overvaluation was detected due to weaker economic and demographic fundamentals. In the first quarter, full-time employment declined 4.3 per cent year-over-year, representing a loss of nearly 29,000 jobs. The job market has

been weak, with more people looking for work while many employers are reducing their payrolls to cut costs. The seasonally adjusted unemployment rate reached 8.6 per cent in the first quarter, up from 5.5 per cent during the same quarter in 2015. The elevated unemployment rate has impacted income growth and moderated migration. Population growth among young adults has also slowed down. Although the average MLS® price in the first quarter remained relatively flat compared the same quarter in 2015, economic and demographic factors have deteriorated, and have fallen short from fully supporting home prices.

Overbuilding

New home inventories and the apartment vacancy rate have both increased. However, only the vacancy rate has increased above the problematic threshold after reaching 5.3 per cent in October 2015. As such, the HMA framework detected moderated evidence of overbuilding in Calgary. Rental demand has declined as weaker labour market

Figure 4

Weaker rental demand and more supply pushed up the vacancy rate

rental apartment vacancy rate (%)

[Bar chart showing Apartment rental vacancy rate with a Threshold line, years 2006 to 2015, vertical axis from 0 to 6]

Apartment rental vacancy rate

Threshold

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

conditions attract less migrants to the region. The unemployment rate has risen to elevated levels and employment is down from the previous year. Supply of rental units has also grown, providing prospective renters with additional options. The purpose-built rental universe in October 2015 increased 865 units compared to October 2014. In addition, landlords are facing competition from the secondary rental market, where supply has also increased.

New home inventories have increased, largely due to the multiple segment of the market, as single-detached inventories remained below historical averages. Due to weaker economic conditions and more supply in the competing resale market, the absorption of newly completed units has moderated. The upward pressure on inventories is not expected to ease as there is an elevated number of units under construction. A majority of the inventory in the multiple market are apartment condominium units. Despite the increase in total new home inventories, inventories relative to population are still below the problematic threshold.

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.

CMHC—HOME TO CANADIANS

Canada Mortgage and Housing Corporation (CMHC) has been Canada's national housing agency for almost 70 years.

CMHC helps Canadians meet their housing needs. As Canada's authority on housing, we contribute to the stability of the housing market and financial system, provide support for Canadians in housing need, and offer objective housing research and information to Canadian governments, consumers and the housing industry. Prudent risk management, strong corporate governance and transparency are cornerstones of our operations.

For more information, visit our website at www.cmhc.ca or follow us on Twitter, LinkedIn, Facebook and YouTube.

You can also reach us by phone at 1-800-668-2642 or by fax at 1-800-245-9274.

Outside Canada call 613-748-2003 or fax to 613-748-2016.

Canada Mortgage and Housing Corporation supports the Government of Canada policy on access to information for people with disabilities. If you wish to obtain this publication in alternative formats, call 1-800-668-2642.

The Market Analysis Centre's (MAC) electronic suite of national standardized products is available for free on CMHC's website. You can view, print, download or subscribe to future editions and get market information e-mailed automatically to you the same day it is released. It's quick and convenient! Go to www.cmhc.ca/en/hoficlincl/homain

For more information on MAC and the wealth of housing market information available to you, visit us today at www.cmhc.ca/housingmarketinformation

To subscribe to printed editions of MAC publications, call 1-800-668-2642.

Housing market intelligence you can count on

FREE REPORTS AVAILABLE ON-LINE

- Canadian Housing Statistics
- Condominium Owners Report
- Housing Information Monthly
- Housing Market Outlook, Canada
- Housing Market Outlook, Highlight Reports – Canada and Regional
- Housing Market Outlook, Major Centres
- Housing Market Tables: Selected South Central Ontario Centres
- Housing Now, Canada
- Housing Now, Major Centres
- Housing Now, Regional
- Monthly Housing Statistics
- Northern Housing Outlook Report
- Preliminary Housing Start Data
- Rental Market Provincial Highlight Reports
- Rental Market Reports, Major Centres
- Rental Market Statistics
- Residential Construction Digest, Prairie Centres
- Seniors' Housing Reports

Get the market intelligence you need today!

Click www.cmhc.ca/housingmarketinformation to view, download or subscribe.

CMHC's Market Analysis Centre e-reports provide a wealth of detailed local, provincial, regional and national market information.

- **Forecasts and Analysis** – Future-oriented information about local, regional and national housing trends.

- **Statistics and Data** – Information on current housing market activities – starts, rents, vacancy rates and much more.

HOUSING MARKET INFORMATION PORTAL

The housing data you want, the way you want it

Information in one central location.

Neighbourhood level data.

Quick and easy access.

cmhc.ca/hmiportal