OBSERVATION

TD Economics

July 30, 2015

ASSESSING THE RISK OF A DISORDERLY HOME PRICE CORRECTION IN TORONTO AND VANCOUVER

Highlights

- In this report, we assess the risk of a disorderly correction in Vancouver and Toronto home prices that in turn would impose substantial headwinds on the economy and financial system.
- Broad metrics provide some contrasting signals both within and across the two markets. But on balance, housing indicators are generally flashing a cautionary yellow rather than green (low risk) or red (high risk).
- That said, there are different shades of yellow. Among the two markets, Toronto's risk profile currently appears somewhat more elevated based on its recent strength in price growth as well as new home construction activity.
- Our baseline still calls for an orderly adjustment in activity in prices over the next few years. In the meantime, the balance of risks would appear to be skewed towards a further build-up in excesses. As such, a close monitoring of incoming data will be critical.

The impressive strength of home sales and prices in the Toronto (GTA) and Vancouver (GVA) housing markets so far this year has further ignited "bubble" talk, with elevated concerns of a disorderly price correction down the road. But how legitimate are these concerns? In this report, we put the spotlight on nine key housing indicators that help us assess to what extent froth is building in both the GTA and GVA markets (table 1). While the metrics provide some contrasting signals both within and across the two markets, the balance of evidence places the risk of a steep and painful price adjustment in the medium-to-moderate camp. Put another way, indicators are generally flashing a cautionary yellow rather than green (low risk) or red (high risk). This rating is consistent with our expectations for a moderation in housing activity through the second half of this year and into 2016. This is a dynamic situation, however. To the extent that the Toronto and Vancouver markets continue to gain strength in the coming months, the risk profile would rise in tandem. As such, a close monitoring of incoming data for signs of further froth accumulation will be critical.

TABLE 1: HOUSING MARKET RISK MONITOR SUMMARY

	GTA	GVA
Overall	Medium	Moderate
Average Existing Home Prices (Y/Y% Chg.)	Medium	Moderate
Existing Home Price-to-Income Ratio	High	High
Housing Affordability Index	Moderate	Moderate
Existing Home Sales-to-Listings Ratio	Moderate	Moderate
Rental Vacancy Rate (%)	Very Low	Very Low
Pace of Existing Home Sales	Moderate	Moderate
New Units Under Construction	Medium	Medium-High
Newly Completed and Unabsorbed Units	Medium-High	Moderate

TD Economics Risk Scale

Very Low	Low	Moderate	Medium	Medium-High	High

Recent home price gains hot, but not blistering

Perhaps the most tell-tale sign of a housing market that is too hot for comfort is unsustainable growth in home prices. Markets that tend to be most at risk are those where price gains are speculative-driven, exponential in fashion and where increases occur over a sustained period. The housing

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Table 2: Average Existing Home Prices (Year-over-Year % Change)									
Risk Scale GTA GVA	Case/Shiller Home Price Index			MLS Quality Adjusted Home Price Index		Single-Family Homes		Apartments	
	Las Vegas	Miami	New York	Van.	Tor.	Van.	Tor.	Van.	Tor.
**Values are as of May 2015 for Toronto and Vancouver and as January 2006 for the U.S.*									
as of June 2015				10.3	8.9	14.2	10.3	4.6	4.3
3-Year Average	20.6	16.4	13.6	1.9	6.1	2.7	7.0	1.1	3.2
5-Year Average	14.5	13.7	13.0	3.0	6.5	4.9	7.4	1.3	3.8
10-Year Average	8.4	8.0	8.6	5.4	5.5	6.7	5.9	4.3	4.8
Source: Canadian Real Estate Association. Federal Financing Housing Agency									

crash in Toronto and Vancouver markets during the early 1990s followed spectacular price growth in the 20-25% range in the 2-3 years preceding the downturn. As table 2 reveals, the U.S. housing boom prior to the sub-prime crisis also showed these bubble-like symptoms. During the 5-year run-up to the 2007-08 recession, home gains reached an average of 14% annually in some of the most overheated U.S. cities. Home prices ultimately dropped by about 30% to 60% in those regions until a trough was reached in 2011.

The sharp acceleration in existing home price growth on a quality-adjusted basis in Toronto and Vancouver in the first 6 months of 2015 has been headline news. Vancouver existing home price growth, in particular, topped 10% year-over-year in June. Table 2 shows that notwithstanding the run-up in prices this year, neither the Toronto nor Vancouver markets have matched (on a multi-year basis) the pace and degree of price acceleration that took place south of the border. Among the two cities, price trends on a quality-adjusted basis in Toronto have been rising most quickly, advancing around 6% to 6.5% per year over the past 3-5 years. In contrast, home prices in Vancouver corrected significantly in 2012, leaving average annual gains fairly contained at 2% to 3% over the same time frame.

Home price pressures have been most significant in the single-family home market in both cities. Price pressures have been stemming from supply constraints. Single-family homes remain in strong demand, but builders have been building fewer of them. In contrast, condos have been in ample supply in both markets, helping to keep price gains for this segment of the market more modest.

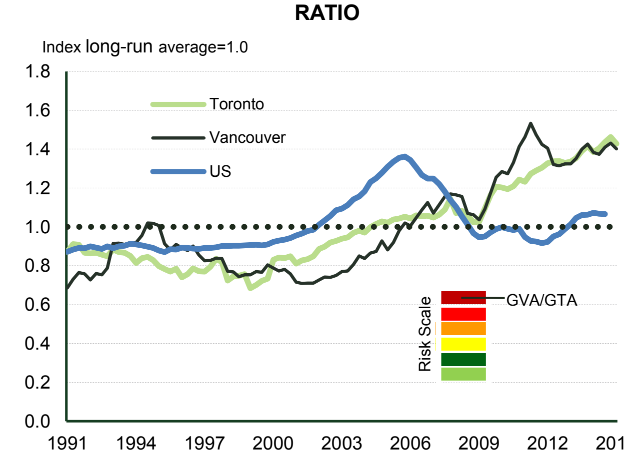
Despite the seemingly lesser froth in Vancouver home prices, one must be mindful of the city's history of relatively large price swings. While not our base case forecast, it would not be extraordinary for Vancouver to suffer a price correction on the heels of the sharp acceleration recorded over the past year. Still, this correction would likely be an orderly one, as was the situation in 2012.

Overvaluation measures flash different colours

Looking at price trends is useful, but an assessment should also factor in changes in underlying economic fundamentals. Key fundamentals include incomes, interest rates and demographics.To the extent that fundamentals move in lockstep, home prices are better-positioned to sustain rapid gains.

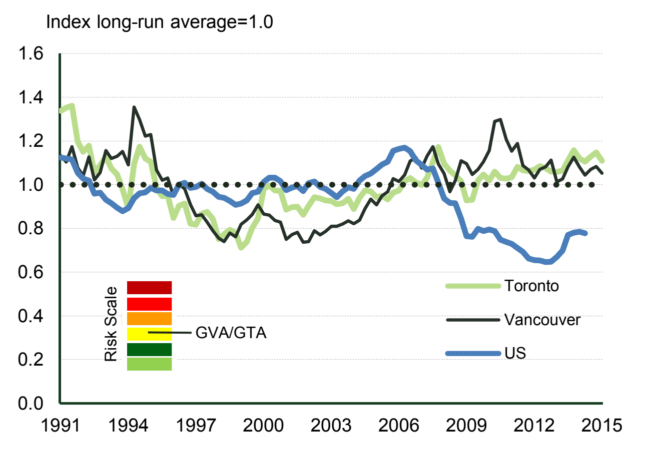
One simple, more fundamentally based measure of over-valuation/under-valuation is the ratio of home prices to household incomes. As was evidenced during the most recent U.S. housing bubble, the price-to-income ratio had

CHART 1: AVERAGE EXISTING HOME PRICE-TO-INCOME RATIO



Source: Canadian Real Estate Association , Statistics Canada

CHART 2: HOUSING AFFORDABILITY INDEX



Source: Canadian Real Estate Association , Statistics Canada

surged about 30% above its long-run average, pointing to an over-valuation of roughly that magnitude. The subsequent crash in U.S. home prices then brought the ratio back close to its long-run average, and little notable uptrend has been observed so far during the recovery.

In contrast, the home price-to-income ratio in Toronto and Vancouver has remained on a steady upward path over the last decade, partly reflecting subdued trends in household income (chart 1). Current readings suggest that home prices in both markets would need to drop by a stunning 40% to bring these ratios back in line with the long-term trend.

The home price-to-income ratio can be useful for gauging the sensitivity of a market to an unexpected negative economic or income shock. One of its key shortcomings is that it fails to take into account the impact of the structural drop in interest rates. Mortgage rates have fallen in recent years to less than half of their historical averages and few forecasters expect a reversion to "normal" levels anytime soon. Lower interest rates have enabled homeowners to carry larger mortgages (and thus purchase a more expensive home) compared to the past.

As such, TD Economics has tended to put the spotlight on housing affordability (chart 2) as a preferred measure of relative valuation. The housing affordability ratio is calculated as the share of income an average earning household would have to devote to mortgage payments if purchasing an average priced home with a conventional mortgage (20% down, 5-year fixed mortgage rate). An increase in the index reflects a slippage in housing affordability. The converse is true for a decrease. As with the home price-to-income ratio, over-valuation implied by the affordability measure is the extent to which home prices would need to drop to return the ratio to its long-term average.

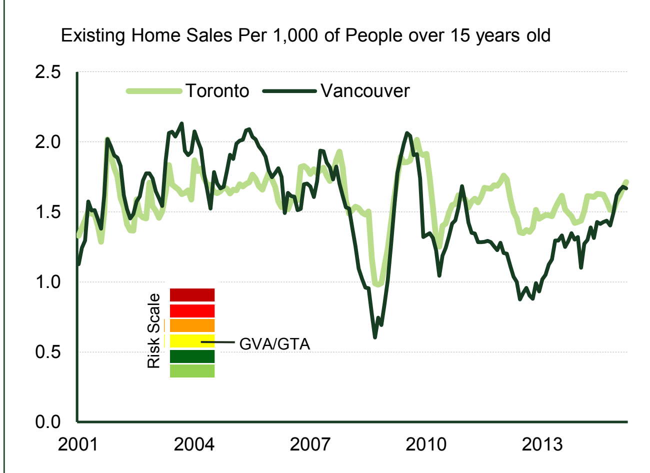
In the 4-5 years leading up to the subprime crisis, U.S. affordability deteriorated sharply, resulting in a widening gap relative to historical norms. By 2006, this measure had pointed to a 20% overvaluation. Currently, the extent of over-valuation as measured by the affordability index is running at moderate 10% in both the Toronto and Vancouver markets – a fraction of what was evident in most U.S. major markets during their run up. Despite sizzling price growth, lower rates have kept the affordability readings in check.

By our estimates, the housing markets would have to face an interest rate increase of 1.5 to 2 percentage points (at constant income and home prices) for affordability to rise to levels that have been consistent with a sharp housing market adjustment. Even then, a rise into danger territory would be a necessary but insufficient condition for a major price drop. Currently, risks are more skewed towards a further reduction in interest rates in the near term.

Speculation a risk, but not at the core

Data on underlying demand for housing can provide another useful risk barometer. Home sales tend to be notoriously cyclical, so to the degree that existing home purchases run well above average can flag unsustainable demand and downside vulnerability. Consistent with differences in price momentum, existing home sales in Toronto and Vancouver have been elevated relative to their 10-year average. However, putting too much stock in absolute sales levels can provide a misleading snapshot surrounding undelying demand. When benchmarked against the rising population

CHART 3: EXISTING HOME SALES



Source: Canadian Mortgage and Housing Corporation, Statistics Canada over time for example, sales in both markets have remained near their long-term average (chart 3).

As one might expect, price gains are generally determined by the interplay of sales (demand) relative to listings (supply). In both markets, housing supply has been restrained, at least until recently. So even though sales have remained below their recent peaks, the sales-to-listings ratios in these cities has been generally pointing to a tightening in market conditions. The Canadian Real Estate Association (CREA) estimates that when this ratio is above 60, the market is in seller's territory and prices rise sharply. When the ratio is below 40, the market is in buyer's territory, putting downward pressure on prices. Traditionally, home price gains upward of 8% has been consistent with seller's territory, where these markets are currently situated (charts 4 and 5).

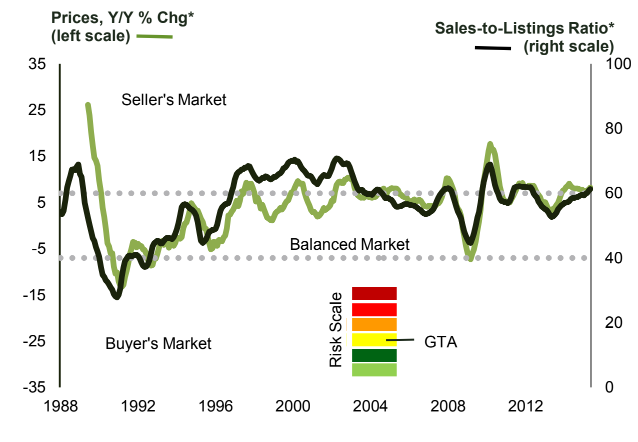
The fact that Toronto and Vancouver price growth has been running at a pace consistent with the respective sales-to-listings ratios should provide some comfort. When price gains become detached from supply-demand fundamentals, it may be a signal that speculative activity – or investors chasing short-term capital gains – has become a leading influence within the market, thus increasing the likelihood of a disorderly correction. However, this does not appear to be the case in these instances. Relatively scant data are available on investor activity. But while foreign and domestic investor purchases appear to have become an important source of demand in Toronto and Vancouver, surveys suggest that a buy-and-hold strategy has remained the popular choice.

In any event, the U.S. experience places some caution around reading too much into recent and past fundamental tightness as justification for strong and sustained home price gains. In fact, the U.S. market was decidedly in "seller's" territory right before the market started to weaken dramatically. Yet one point of distinction relates to the broader housing system. Conditions in the U.S. rental market had already begun to weaken considerably before the home-ownership market peaked. In the GTA and Vancouver, however, the rental vacancy rate remains relatively tight at under 2%, pointing to more general housing supply constraints.

Overbuilding gets a medium rating

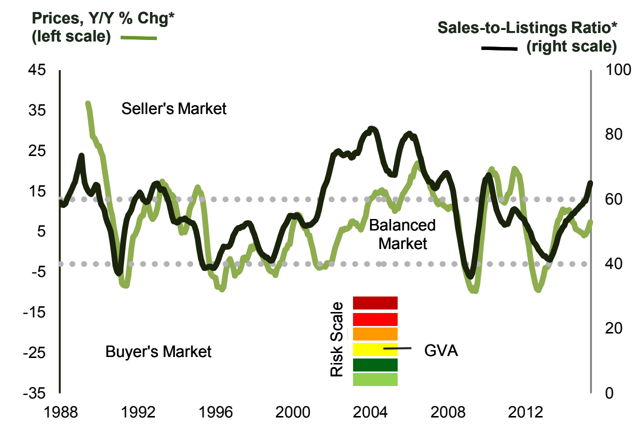
The new home market can also provide some important warning signals. Frothy housing conditions are generally accompanied by excessive home building. Sharp home price gains encourage investment in new home construction above and beyond what is needed to keep pace with underlying population growth. This was clearly the case in the

CHART 4: TORONTO EXISTING HOME MARKET



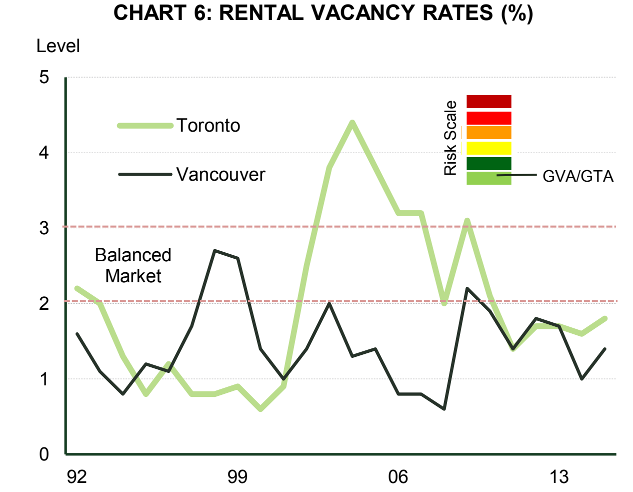
Source: Canadian Real Estate Association. *6-Month Moving Average

CHART 5: VANCOUVER EXISTING HOME MARKET



Source: Canadian Real Estate Association. *6-Month Moving Average

CHART 6: RENTAL VACANCY RATES (%)



Source: Canadian Mortgage and Housing Corporation late 1980s housing boom. As units were completed and put on the market, upward pressure on supply, and downward pressure on prices mounted.

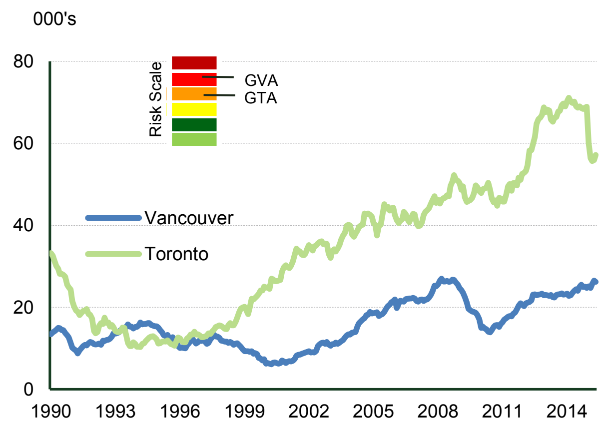
While the implications have yet to be visible, overbuilding appears to be more of a risk in Toronto's housing market, particularly in the large condo segment. Housing starts have slowed to below our estimate of household formation over the past few years, but this cooling has followed a significant period of excessive building. Despite the large number of units under construction (of which 80% are condos), completion rates of these units have been held back due to lengthened project timelines and construction delays. Recently, however, the number of new units completed and hitting the market has picked up sharply, majority of which are condos. Based on CMHC data, builders in the GTA appear to be holding onto a record number of newly completed but unsold units. As a share of market sales, the new home inventory has also been rising but remains below the peak recorded in the early 1990s housing downturn (chart 8). Continued tight rental markets give us some comfort that many of these units will be absorbed in the near term without major implications for home prices.

Supply concerns within the new housing market are less significant in Vancouver. Overbuilding has been a chronic worry in Vancouver since the early 2000s, and indeed, contributed to the housing market correction in 2012. Most of the excesses generated ahead of that adjustment have been addressed. The share of newly completed but unabsorbed at are back down to historically low levels. However, Vancouver still has more unabsorbed units than Toronto, despite being a smaller market. Furthermore, the number of new homes under construction in Vancouver has returned to peak levels in recent months, suggesting that supply pressures could return as an issue over the next few years.

The bottom line: proceed with caution

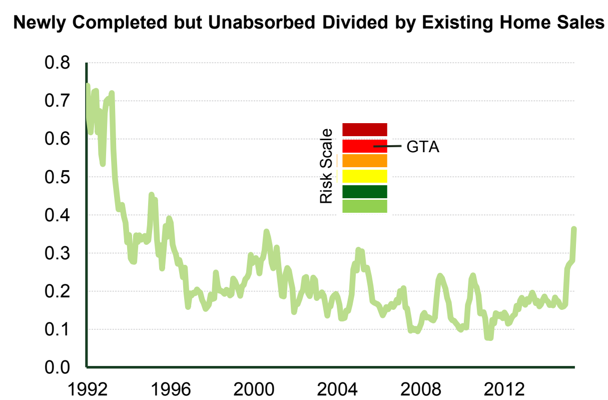
When we put it all together, key housing indicators on balance continue to highlight the vulnerability of the Toronto and Vancouver housing markets to a significant correction in activity and prices. In light of its hotter price performance over the past 3-5 years and greater supply risk, this vulnerability appears to be comparatively high in the Toronto market. Still, even in Toronto, the same metrics would assign a "medium" rather than "high" risk to the kind of painful and disorderly price adjustment that was endured in the United States a half decade ago. The usual trigger for a major adjustment would be an unanticipated shock emanat-

CHART 7: NEW HOMES UNDER CONSTRUCTION



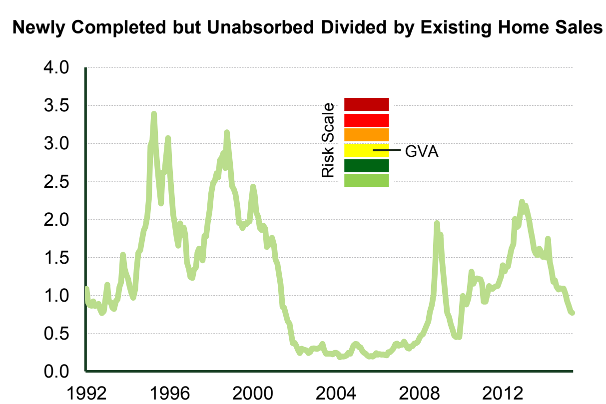
Source: Canadian Mortgage and Housing Corporation

CHART 8: GTA RISING SUPPLY CONCERN



Source: CMHC and CREA

CHART 9: GVA RISING SUPPLY CONCERN



Source: CMHC and CREA

ing from outside Canada's borders that generates a recession and concurrently a rapid unwinding of housing activity.

This risk assessment should not abstract from the most likely outcome, which we continue to believe will be characterized as a soft landing (table 3):

- Some of the recent sales and price momentum in Toronto and Vancouver reflects the lower-than-anticipated borrowing rates in early 2015. In particular, the 5-year special rate fell by half a percentage point, providing a major boost to affordability.
- The additional 25 basis point cut in the overnight rate by the Bank of Canada in mid-July is likely to provide further support to near-term market momentum. However, this lift is likely to be modest. Even with the reduction, bond yields – which are instrumental in the setting of fixed mortgage rates – are not expected to return to their lows of early this year. Furthermore, we are of the view that while Canadian short-term rates will remain stable over the next year, bond yields will grind higher in tandem with U.S. yields.
- Demand will remain strong over the remainder of the near term, but as affordability continues to erode, sales activity will likely cool heading into 2016. In Vancouver, a the pull-back in sales projected for next year might seem large, but it would follow two years in which sales rose by almost 50%.
- Additions to new supply – especially in Toronto's condo market – will likely be another factor shifting markets back into balanced territory next year. In both markets, price growth is expected to taper off significantly from this year's heated pace, but remain positive.
- The tapering off in prices in 2016 and 2017 would afford some time for household income to catch up and reduce but not eliminate the degree of over-valuation.

Table 3: Resale Housing Market Outlook

	Toronto		Vancouver	
	2015F	2016F	2015F	2016F
Average Exsting Home Price (Y/Y% Chg.)	9.3	4.3	10.6	4.1
Average Exsting Sales (Y/Y% Chg.)	10.3	-5.3	24.2	-12.3
Housing Starts (000's)	39.0	41.0	19.8	19.5

Source: Canadian Real Estate Association. F. by TD Economics as of June 2015

The likelihood of a hard landing further down the road would be mitigated under our baseline scenario. And, indeed, a number of housing markets in Canada – notably Montreal, Quebec City and Halifax – have managed to pull off an orderly cooling in housing activity over the past several years. In the meantime, the balance of risks would appear to be skewed towards continued acceleration in home price growth and a further build-up in excesses in the near term. Accordingly, the need for careful and ongoing monitoring of these key indicators will be crucial in understanding to what extent the risk profile may be shifting.