CURE Policy Brief: Why Canadian home prices continue to rise

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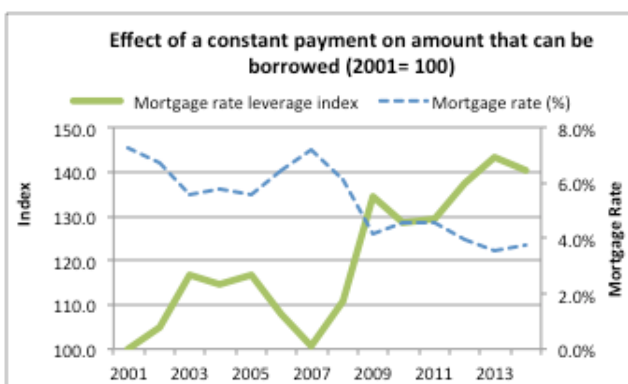
The financial media have commented extensively on the rise of home prices in Canada and debated at length whether homes are becoming unaffordable and if Canada has a house price bubble. Much of this assessment draws on traditional measures of house price affordability; in particular the ratio of incomes to home prices, and less frequently (but more common international comparison, the price to rent ratio - See for example the economist Global house prices: Mixed messages, Aug 31st 2013).

The IMF, Bank of Canada and many commentators have referenced these indicators as evidence that Canada's home market is overvalued and poised for a collapse, or at best decline with a soft landing. Other commentators have expressed concern that young families will not be able to buy a home. Indeed, both measures do suggest a significant decline in ownership affordability over the past decade and since the recovery from the 2008 global crisis.

The problem with these traditional measures is that they overlook two critical variables: the now historically low level of mortgage rates; and in combination with low rates the influence that appreciated prices have in contributing to further price inflation, a compounding effect of price gain.

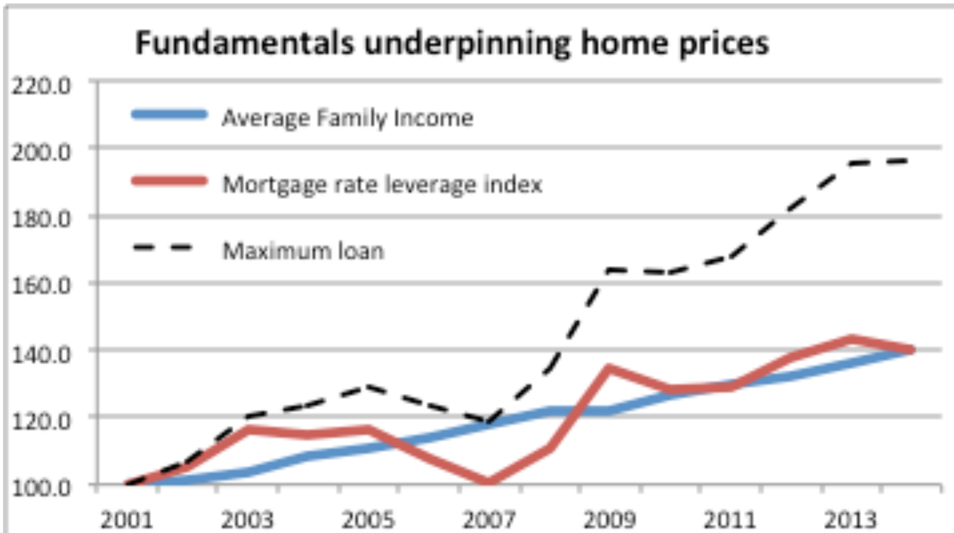
Home prices are significantly impacted by demand and capacity to pay. Two key factors, employment and income growth have slowed since the 2008/09 recession, but have nonetheless continued to be positive and as such supported demand and price pressure. Mortgage rates have continued to decline slightly, augmenting the other two factors to sustain capacity to buy.

By themselves, declining and low mortgage rates have had a dramatic impact. If a household maintained a constant monthly mortgage payment over the period from 2001-14, as rates declined, this payment would lever an increasingly larger loan. Between 2001 and 2014 declining rates have increase potential borrowing by 44%.



That is, even with no increase in their income or monthly payment they could afford a home at a price 44% higher than in 2001. With incomes also increasing over these thirteen years their capacity to buy was further enhanced: the average weekly wage reveals steady income gains through to 2008, a short stagnation in 2009, followed by income gains after 2009 averaging 2.9% annually.

Thus households had more money to make mortgage payments. The combined effect of lower mortgage rates and growing incomes is an increased capacity to buy, which has the effect of pushing up home values. More so in areas of high in migration and low home listings.



Between 2001 and 2014 this combination doubled the amount of financing a family could borrow by 97%, far greater that the 31% increase in the average family income. This leverage effect is what drove the increase in home prices, and following a short respite in 2008-09 sustained it in more recent years.

These factors have been well documented and discussed. However, the second driver of house price gains, has received almost no attention. That is how rising home prices generate net wealth and equity, which fuels a continued upward price momentum. As home prices rise, owners generate increasing levels of equity, which can be used to trade up – and to add price pressure in the market.

Again it is the effect of low (and for most of the past decade declining) mortgage rates in combination with appreciating home values that fuel ongoing price pressure. This effect is illustrated in the following example.

A family with an annual income in 2001 of $47,000 (well below average) had just sufficient income to purchase a home at the Canadian average home price of $172,000. They made a down payment of 5% and took out a mortgage of $163,000 at the prevailing rate of 7.3%. Their monthly payments were $1,175 (for simplicity we ignore CMHC mortgage insurance premium, any renewal so maintain same rate, and also assume they make no extra payments. In reality renewing in 2006 at the then rate of 6.5% and maintaining same payments, would have increased the reduction in the principle balance and further enhanced their equity).

By 2011, their monthly payments have repaid principle of just over $34,000, on top of which the home has appreciated by 95% (the national increase in the home price index), to almost double in value. They now have accumulated equity of $207,400.

Initial purchase 2001, with trade-up in 2011							
Buyer income 2001	Home Price 2001	Mortgage rate (2001)	Monthly payment*	Home price index 2011 (2001= 100)	Appreciated House value	Principle repaid	Total Equity (appreciation and principle repaid)
$47,000	$172,000	7.30%	$1,175	195.9	336,384	$34,176	$207,404
* Ignores mortgage insurance premium							

When they sell and trade up in spring 2011, they have a substantial down-payment, based on their equity gain ($207,000). At the same time, mortgage rates in May 2011 had fallen to 4.55%. Even if they had no increase in income, or did not wish to increase their mortgage payment from the original $1,175, at the lower prevailing mortgage rate they could now borrow $211,000.

Adding this to their accumulated equity, they can easily afford to buy a home valued at almost $420,000.

But they have enjoyed modest income gains, tracking the rise in the average wage, such that by 2011, their annual income is up to $61,150. At a 30% debt service ratio this qualifies them for a new mortgage of $275,00 with monthly payments of $1,530 and with their equity allows them to trade up even more to purchase a home up to $480,000 in value.

This new home value would translate to a home price to income ratio of 7.8, well above the 3.6 their original purchase in 2001 represented, and by benchmark standards supposedly unaffordable. Yet they are able to make the purchase quite comfortably, spending only 30% of their income mainly because they had the benefit of accumulated equity in their original home.

And by 2014, with income now up to $65,800, their payment to income ratio would have fallen to only 23% of gross income. At that point, with ongoing appreciation in the new home, the family would also have accumulated a total of $364,000 in equity and could potentially afford to trade up again to a home valued at $684,000 (10.4 times their income).

The benefits of accumulated equity from price increases is relevant only for existing owners, not first time buyers. Indeed, this may cause increasing disparity between first time buyers and existing owners.

To the extent that existing buyers dominate the market this will be more significant. Unfortunately, data on the proportion of home buyers is seriously lacking. A 2013 survey for the Canadian Association of Accredited Mortgage Professionals (CAAMP) identified 57% as first time buyers – a remarkably high proportion. Some of these are foreign buyers, who while buying for the first time in Canada come with significant equity. Other, domestic first time buyers, responded that their parents had helped with down payments, some cashing in on their own home equity gains. Most first time buyers purchase lower value entry-level homes, generally priced below average values and thus more affordable so they have a smaller influence on the overall market average. Their ability to enter the market, however, depends on an ongoing availability of such modestly priced options.

Even if only representing half of all buyers (likely a low estimate) the move up buyers leveraging equity still have a profound impact on overall price gains. And their ability to bid up prices contributes to widening disparity between owners and those seeking to get onto the ownership ladder.

It is clear that a price to income ratio overlooks the dramatic impact of declining and low mortgage rates in terms of increase purchasing capacity. It also ignores the substantial contribution that price appreciation has to the family's aspirations to trade-up in their housing consumption. Most importantly it highlights the need for better data and understanding of the relative size of the first time buyer part of the market and whether they will experience greater challenges as owners cash in on their advantage.