# SPECIAL REPORT

## TD Economics

September 6, 2012

# TIGHTER MORTGAGE RULES TO COOL DEBT GROWTH, BUT HIGHER RATES ULTIMATELY REQUIRED

### Highlights

- The Department of Finance recently implemented tighter mortgage insurance rules to help take some of steam out of the Canadian housing market and to curb households from taking on too much debt during a continued low interest rate environment.
- This report examines past experience to gain insight on what to expect for Canadian housing in light of stricter lending guidelines. Our analysis shows that past regulatory tightening led to a significant permanent drop in housing demand. However, while home prices took an immediate hit following the rule changes, they bounced back within two to three quarters and continued to grow faster than underlying economic fundamentals. The dampening effect on household credit growth was more notable and sustained.
- The changes implemented on July 9th may have more of a bite as they will hit a larger segment of the housing market and lead to a larger deterioration in affordability than past rule changes, particularly for first time homebuyers. Overall we expect the new rules to shave 5 percentage points off sales and 3 percentage points off prices over the rest of 2012 and early 2013 and reduce about 1 percentage point off credit growth.
- However, new guidelines will only go part of the way in unwinding the imbalances developed in the Canadian housing market. As long as interest rates remain at their current low levels, households still have a strong incentive to borrow and the overvaluation in the housing market will persist. Ultimately, interest rate increases by the Bank of Canada are needed to ensure sustainable growth in the Canadian housing market.

In response to ongoing concerns surrounding high household indebtedness and overheating in the Canadian housing market, the federal government further tightened lending rules for CMHC-insured mortgages, effective July 9, 2012. In this report, we address the question of whether these changes represent a significant game changer. Although we find that the July move will go some way towards cooling housing sales and price growth, the more pronounced effects are likely to be observed on tempering demand for household credit, which – fortunately – is the government's ultimate objective. While representing another important step, these regulatory actions are unlikely to fully address the financial excesses that have built up in the household sector – nor are they designed to. As such, interest rate increases will still be required over the medium term in order to ensure that both housing valuations and household indebtedness grow closer in line with underlying economic fundamentals.

### Past rule changes a good guide

In estimating the impacts of the July move, we can gain insight from events surrounding the government's earlier changes to the mortgage insurance rules, which are summarized in Table 1. In particular, after significantly easing the rules over the 2004-2006 period, the government reversed course and fol-

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| Table 1: Changes in Insured Mortgage Lending Rules | | | | | |
|---|---|---|---|---|---|
| | 2004-2007 | 2008 | 2010 | 2011 | 2012 |
| Change in Allowable Loan-to-Value Ratios for Refinancing | 85% to 95%* | | 95% to 90% | 90% to 85% | 85% to 80% |
| Change in Required Down payment | Brought down to 0%<br>Downpayment of less than 20% requires mortgage insurance, previously was 25% | Increased to 5% | Increased from 5% to 20% on homes with 1-4 dwellings and not occupied by the owner | | |
| Debt to Income Restrictions | | | If choosing less than a five year term, mortgage applicants must be income tested using a five-year fixed mortgage rate, previously income tested at 3-year fixed rate | | Mortgage insurance no longer available on homes worth more than $1 million<br>Gross Debt Service Ratio capped at 39% and Total Debt Ratio at 44% |
| Change in Allowable Amortization Period | 25 to 40 years | 40 to 35 years | | 35 to 30 years | 30 to 25 years |
| Other | | | | Banks can no longer insure home equity lines of credit | |
| Announced<br>Implemented | | July 9th<br>October 15th | February 16th<br>April 19th | January 17th<br>March 18th | June 21st<br>July 9th |

Source: Department of Finance. *Not a Federal Government initiative, rather was introduced by CMHC

lowed through with three tightening episodes in 2008-11. The majority of the measures since 2008 have been aimed at capping how much a household can borrow either when purchasing a house or refinancing their existing home.

Along with the 2008 move to raise the required down payment on insured mortgages from zero to 5%, the steady reductions in the allowable maximum amortization period have likely had the largest dampening impact on housing demand. While a homebuyer benefits from a lower amortization period by paying less interest and building more home equity over time, it does mean a higher monthly mortgage payment in the near term. Table 2 provides detail on how various amortization rates impact housing affordability and household leverage. Note that as amortization periods decline each 5-year reduction has a larger impact. For example, the move from a 40 to 35 year amortization had the equivalent impact on affordability as a 0.4 percentage point hike in interest rates. The comparable interest rate equivalent of the reduction from 35 to 30 years was 0.6 percentage points.

There is little doubt that first time home buyers – a market segment that have comprised as much as half of total Canadian sales in recent years – have been the most affected by the tightening in mortgage insurance rules. Still, the hefty increase in the required down-payment to 20% for non-owner-occupied properties in 2010 directly targeted investors.

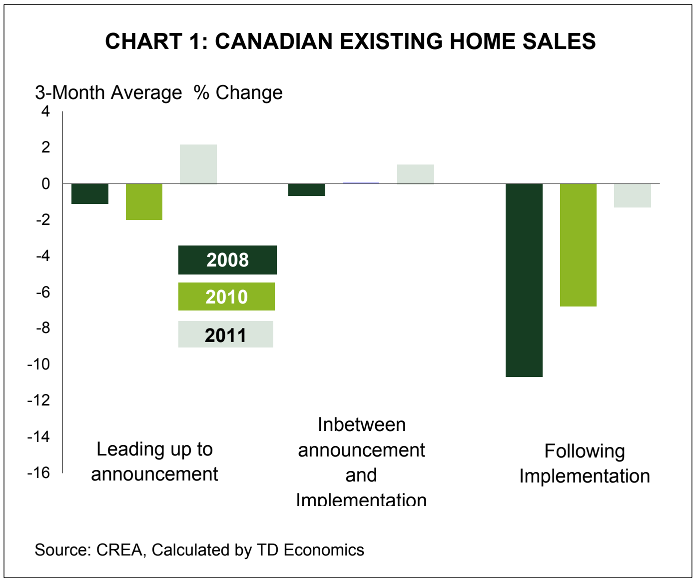
| Table 2: Impact of Allowable Amortization Periods on Mortgage Payments and Home Equity | | | | |
|---|---|---|---|---|
| **Mortgage Assumptions** | | | | |
| Average Home Price ($)* | 357,998 | | | |
| 5-year Fixed Interst Rate ** | 3.8% | | | |
| Mortgage Balance Assuming 5% down ($) | 340,098 | | | |
| **Amortizaton Period** | **40 Years** | **35 Years** | **30 Years** | **25 Years** |
| Total Monthly Payments ($) | 1,373 | 1,459 | 1,579 | 1,752 |
| Total Mortgage Amount Paid ($) over 5 Years: | | | | |
| of which is interest | 62,311 | 61,801 | 61,094 | 60,068 |
| of which is principal (built up equity) | 20,069 | 25,739 | 33,646 | 45,071 |
| Mortgage Outstanding at End of Term ($) | 320,029 | 314,359 | 306,452 | 295,028 |
| Increase in Mortgage Payments ($) | | 86 | 120 | 173 |
| Equivalent Interest Rate Increase (%) | | 0.4 | 0.6 | 0.9 |

Calculated by TD Economics
*Average Home price in July 2012
** 5-year closed special mortgage rate as of August 2012

### Lessons learned from history

Given that the 2008, 2010 and 2011 tightening measures were not identical and occurred at unique points in the housing cycle, it is reasonable to assume that their impacts would differ. For example, the 2008 changes were implemented just prior to the 2008-09 economic recession, making interpretation of the developments around that time challenging. That being said, we can draw out some commonalities:

- There was a pick up in home sales prior to changes to beat out the new rules – in each instance, homebuyers were given up to three months from the time the rules were announced to the implementation date. In those



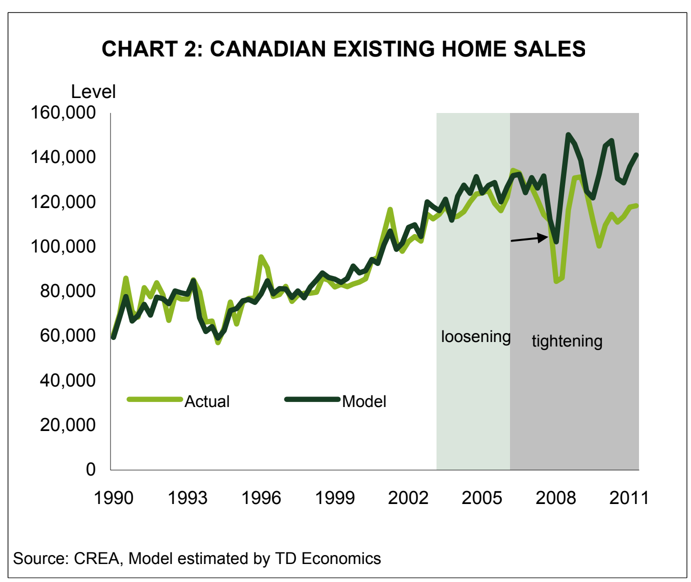

months, there was a moderate strengthening in home sales activity. Even as the recession hit in late 2008, the decline in sales underway eased in the two months prior to the announcement.

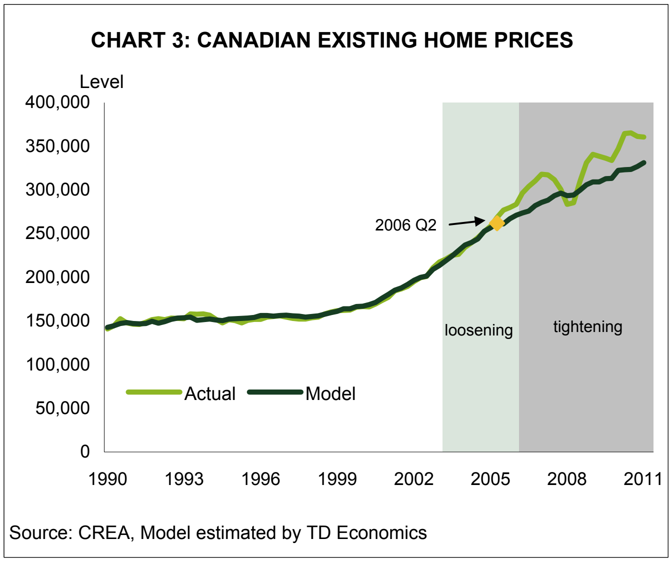
- Home sales fell substantially once the new rules took effect, but revived within a few months – average declines in sales in the 3 months following the effective dates of the measures were 4% to 5%. Some of this decline reflected payback from the bringing forward of sales to beat out the rule changes. However, in each case, housing demand picked up by the second quarter after implementation.
- Disproportionate impacts were observed in large urban centres – higher-priced markets where speculation or investment demand has been more significant have generally been more affected by the changes. Toronto was harder hit by the 2010 rule changes with home sales dropping a sharp 37% over the 3 months that followed the implementation date. The 2011 rule changes took a bigger bite out of the Vancouver market, where sales dropped 27% in their immediate 6-month aftermath.
- Home prices fell modestly in lagged fashion, but also bounced back within 2-3 quarters – prices tend to follow sales trends with a short lag. And, indeed, the drop in sales post-implementation pulled down average prices by roughly 2% within a few months. Part of the decline reflected the hit to affordability from the rule changes which caused some buyers to seek less expensive homes. However, following in the footsteps of sales, prices would soon recover these losses.

While instructive, these broad observable trends fail to isolate the impact of the rule changes from the many other economic influences prevailing at the time, such as cuts in interest rates and employment gains. In order to deepen this analysis, we turn to our housing model, which includes the key drivers, such as per capita income growth, population growth, interest rates, housing stock and household wealth. Chart 2 attempts to better split out the effects of the mortgage lending rule changes by comparing actual movements in home sales and prices with those that are explained by economic fundamentals (as per the modeled results). Although the residual amount is assumed to reflect the impact of the rule changes, it could also capture some of the factors not included in the model.

This analysis shows a much more pronounced and longer-term impact on sales, as the impact on affordability likely pushed a number of homebuyers out of the market. In fact, by the end of 2011, sales stood 17% lower than the level implied by economic fundamentals. Another way to look at the chart is that in the absence of the changes, home sales would have vaulted to new record highs.

The price story has shaped up very differently, with prices showing little lasting impact from the rule changes (Chart 3). Indeed, price gains began to outstrip those underpinned by fundamental factors in 2006. After the overvaluation appeared to briefly disappear during the recession, excessive price gains have since resumed despite the dampening influence on sales from the rule tightening. TD Economics' estimate of the current over-valuation, as measured by the gap between actual and modeled prices, stands at about 10 to 15%, which is in the ballpark of most other estimates. Nev-






ertheless, a good case can be made that the over-valuation would have been even higher had it not been for the federal government's efforts.

### Impact on household debt has been larger

The purpose of more stringent lending guidelines appears to be less about putting a stop to growth in the housing market and more about mitigating the risk to the financial system from excessive household indebtedness. Much ink has been split about the relentless rise in the household debt-to-income ratio to over 150%. A similar modeling exercise reveals that the moves to tighten the lending standards have lowered credit demand significantly. By tempering home sales and curbing refinancing activity, the tighter mortgage insurance rules have shaved an estimated 2-3 percentage points from household credit growth on average over the past five years. Impacts have been observed across the range of credit products, including: mortgages, home equity secured lines of credit and other consumer credit.

According to CMHC, the new loan-to-value restrictions on refinancing had the largest impact on the number of mortgages they insured in 2011[1]. While the level of both new and refinanced insured mortgages fell in the months immediately following the 2011 tightening, new insured mortgages recouped the loses by the end of the year; but, insured refinancing activity remained depressed by more than 20%.

Overall, the stricter lending guidelines have helped to bring down household debt growth to a pace more in line with that of income since 2011 – bucking a five year trend where debt accumulation was expanding at twice that of income. Our models suggest that had the government not tightened lending mortgage rules between 2008 and 2011, the Canadian household debt-to-income ratio would have reached 160% this year (see Chart 5) – the level that households in the U.S. and U.K. reached before sending their economies and housing markets into a tailspin.

### What to expect from the July 2012 rule changes

As Table 2 shows, the July rule changes continued the trend of incremental tightening. The maximum amortization has been returned to its traditional 25-year time frame, while overall credit standards are now moderately tighter than those prevailing prior to the start of the easing period in 2004. The experience over the past three years suggests that weaker sales and lower household credit growth are likely in store. A few considerations deserve mention that could magnify or lessen the effects when compared to past episodes:

- Maximum amortization reduction to have a bigger affordability bite – the reduction in the maximum amortization from 30 to 25 years translates into a heftier hit to affordability than past reductions. We estimate the equivalent interest rate impact to be 0.9 percentage points, or about $140 per month on an average priced home. Moreover, a larger segment of the market is likely to be affected than in the past. Amortization periods of 25-30 years have been a more popular choice than either the earlier 35 or 40 year options. According to the Canadian Association of Mortgage Professionals, 27% percent of total mortgages outstanding had an amortization period of between 25 to 30 years in 2011,

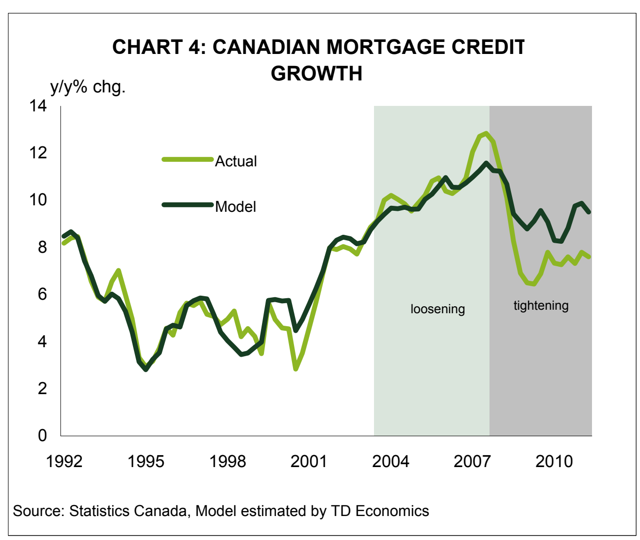
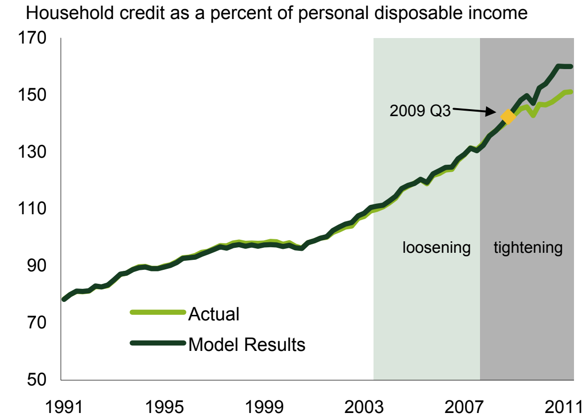


CHART 5: HOUSEHOLD DEBT-TO-INCOME RATIO




Source: Statistics Canada, Model estimated by TD Economics

compared to 8% of between 30 to 35 years and 6% with an amortization greater than 40 years[2].

- The impact of other changes should be small – the move to stop insurance on homes worth $1 million or more and the move to cap the gross debt service (GDS) and total debt service (TDS) ratios are unlikely to have much impact on the housing market. The share of total mortgages above that high-end point is small, at less than 1%. Meanwhile, chartered banks have already implemented limits on qualifying GDS and TDS.
- The lead time is shorter – the government only provided less than one month's notice ahead of the rule changes, resulting in fewer sales being brought forward and, thus, less of a near-term decline post-implementation.
- The timing is different – psychology and confidence is critical to the performance of the housing market. Economic growth remains moderate and overall housing activity is still elevated in Canada. However, the new rules are being implemented at a time of heightened uncertainty surrounding future economic prospects and where housing market corrections are already being witnessed in some key markets, notably formerly-white-hot Vancouver.
- OSFI also introducing stricter lending guidelines– the July tightening in lending standards on insured mortgages are not the only regulatory action that will act to slow the near-term performance of housing and demand for credit. The chartered bank regulator, OSFI, has introduced new guidelines that will restrict lending to non-conforming, non-insured mortgage lending and cap the loan-to-value ratio on home equity lines of credit at 65%, down from 80%. Although implementation of these rules is expected by the end of the next fiscal year ending in October 2013, chartered banks are likely to move much sooner.

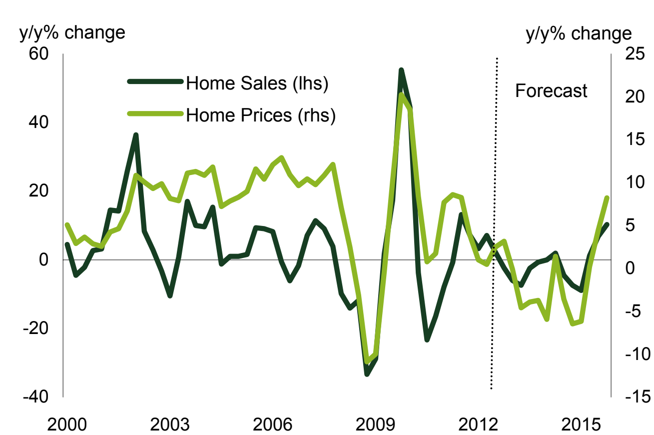
Putting it all together, regulatory reform undertaken by both the department of finance and OSFI are likely to cool the Canadian housing market through the end of this year and into 2013. The above analysis suggests that the combined measures could shave more than 5 percentage points off growth in existing home sales and 3 percentage points off prices and an additional 1 percentage point off household credit growth vis-à-vis our prior base case forecast.

**New regulation to trigger housing market correction, but Bank of Canada will still need to raise rates.**

Well before the announcement of both the CMHC rule changes, as well as the new OSFI guidelines, TD Economics had projected a medium-term correction in the Canadian housing market on the order of 10% for sales and prices would begin in mid-2013. At that time, the trigger for the much needed correction was an expected 100 basis point increase in the overnight rate over the next year and an additional 50 basis points of hikes in 2014.

The new regulatory reforms are now expected to cool the housing market in 2012 and early 2013, undeniably reducing the urgency on the Bank of Canada to raise interest rates in the near term. Nonetheless, a key takeaway from the analysis in this paper is that regulatory changes alone are unlikely to fully address the imbalances in both housing valuations and debt-loads. While these incremental moves represent a good starting point, as long as interest rates remain un-

CHART 6: CANADIAN EXISTING HOME MARKET




Source: CREA, Forecast by TD Economics as of August 2012 usually low there will remain a powerful incentive to take on additional leverage and the overvaluation in Canadian housing will likely remain. Thus, higher interest rates will ultimately be required over the next few years to ensure that Canada's housing market and overall economy remain on a sustainable growth path. As such, we anticipate the Bank of Canada is likely to raise interest rates in 2013, but move later and more gradually in light of the recent tightening in lending standards. We now expect the Bank of Canada to lift the overnight rate by 50 basis points in 2013 – only half the amount of rate hikes TD was expecting prior to regulatory tightening, with further modest hikes in 2014. A gradual increase in bond yields in 2013 and 2014 should lead to higher mortgage rates.

The stricter lending guidelines, in combination with modest interest rate increases, point to a gradual sales and price correction in the order of 10%. This will likely unwind the excesses in the housing market and total debt growth, with the latter expected to increase more in line with income growth on a trend basis going forward. As such, the debt-to-income ratio should stabilize close to its current level of 152%. The impact is likely be felt over the next three years, highlighting the fact that the regulatory changes and higher interest rates will steadily unwind the prevailing imbalances.

**Concluding Remarks**

As a final comment, we would like to note that tightening insured mortgage regulation has represented good co-operation between the Canadian central bank and financial system regulators. The current global economic environment has meant that the Bank of Canada has had to stay on the sidelines for an extended period of time. In recognition that imbalances are growing on the domestic front, the Department of Finance and OSFI have taken prudent steps to limiting risks to the household sector, while allowing the Bank of Canada to keep rates incredibly low in a period of exceptional economic uncertainties. This is highly commendable. At this stage, regulatory tightening has done its part. The next step in tempering domestic imbalances will have to come from the Bank of Canada. Interest rates simply cannot stay at current levels indefinitely.

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## Endnotes:

1. CMHC 2011 Annual Report. http://www.cmhc-schl.gc.ca/en/corp/about/anrecopl/anre/upload/2011-CMHC-Annual-Report.pdf
2. Annual State of the Canadian Mortgage Market.Canadian Association of Mortgage Professionals.November 2011. http://www.caamp.org/meloncms/media/Report%20Fall%202011%20ENG%20web.pdf