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Is There a Canadian Housing Bubble?



Would A Housing Bubble Impact the BoC's Conditional Commitment?

Canadian house prices are rich no matter how one looks at it, but they are likely to become richer yet before material risks emerge later next year and beyond. The implications for the Canadian economy, mortgage markets, and monetary policy must, however, take full consideration of profound microeconomic differences between the Canadian and US mortgage markets. We also argue that the implications of strong house price gains on the Bank of Canada's conditional commitment to keep rates on hold until the end of 2010Q2 are exaggerated for seven key reasons.

1. The Current Performance of Canadian Housing Markets

Before delving into the drivers of current house prices, it's necessary to make key observations on valuations, sales volumes and supply.

a. Valuation Measures—Rich by Any Measure

There is no one single approach to gauging house valuations that works best. Like valuing any other asset, multiple methodologies are required and then the focus becomes whether they yield comparable outcomes.

Our least favourite measure for current purposes is an affordability measure that compares payments to income. That's extremely useful in evaluating conditions for present home ownership, but evaluates the carrying cost of home purchases using variables like interest rates at a particular point in time without strictly addressing the fair value of the asset itself. Affordability is often just an interest rate play.

Instead, comparing current and past house prices is one approach. Chart 1 depicts the average resale price using Canadian Real Estate Association data for homes sold through the Multiple Listing Service. They've more than doubled this decade. Chart 1 also shows Statistics Canada's new home price index that has risen by about 50% this decade. Chart 2 depicts the Canadian equivalent to the U.S. S&P/Case Shiller repeat sales measure of house prices that has gone up by 86% this decade and this data only goes up to August before sales further accelerated. By comparison, the US S&P/Case Shiller repeat sales measure had risen by 100% from the start of 2000 until its peak in mid-2006. Thus, all three Canadian measures point to lofty valuations. If analysts were worried about Canadian house prices over 2007-08, it would be inconsistent to suddenly no longer believe them to be in lofty territory today especially insofar as the outright resale segment is concerned.

But deflating these measures by economy-wide price levels in order to compare house prices to broader economy-wide prices over time is another approach. Chart 3 provides the elevated results for

Chart 1:

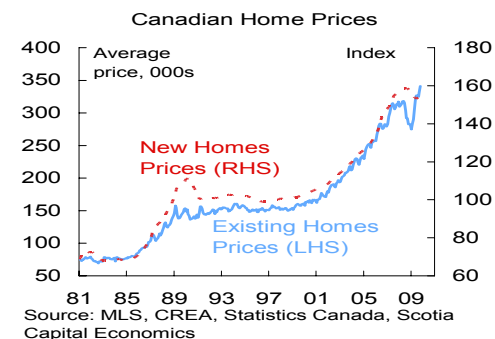


Chart 2:

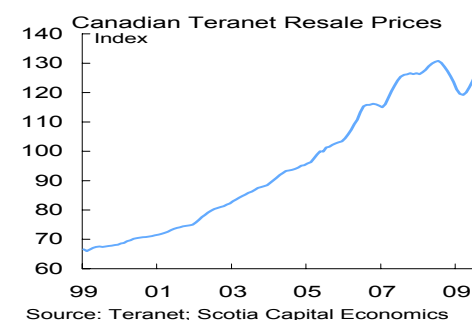


Chart 3:

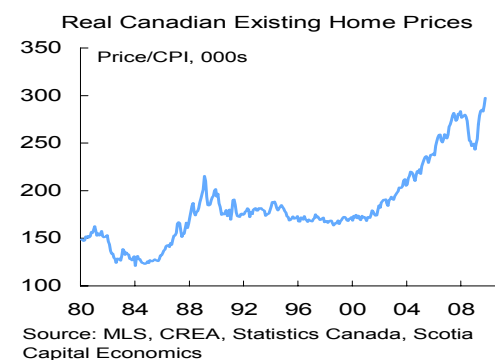
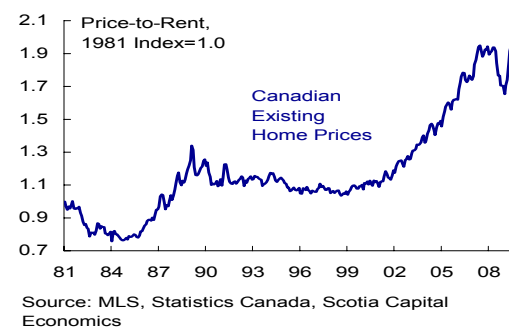


Chart 4





resales. The result is about a 70% rise so far this decade.

Price-to-rent comparisons are another way of assessing housing valuations by considering the own-versus-rent choice. This measure is at an all-time high (chart 4). Note that one should only pay attention to the trends in this chart. We're comparing prices to the rental component of CPI, so the level of the measure means nothing.

Price to income is also elevated (chart 5), which is somewhat analogous to a carrying-cost calculation but not one that is skewed by emergency low levels of interest rates as standard affordability calculations.

All combined, while not all measures are at records, the general picture is one of lofty Canadian house price valuations.

Now, while the hottest markets have tended to be Toronto and Vancouver, one cannot simply eliminate them as outliers, since they make up over one-fifth of the Canadian market place. Regardless, all Provinces have experienced a strong pace of price gains since house prices started to rise at the beginning of the decade (chart 6).

b. Volume Measures—Sales Surge, Tight Supply, Lofty Renos

Some of what has driven high resale prices is a combination of a sharp, concentrated sales recovery alongside tight supply conditions. Chart 7 depicts record resale volumes, and tight new monthly resale listings.

It's not just home sales that are hot. Renovation spending also remains very elevated (chart 8). It was high before Federal incentives kicked in, but they have probably helped insulate against other downsides in keeping the volume of spending elevated.

c. Inventories—Lean, Except for Condos

Not only are new monthly listings depressed, the total stock of listed properties in relation to current selling rates is also very low (chart 9). That is truer for single homes, however, than condos whereby the unsold stock of multiple housing units sits at the highest level since the first half of the 1990s (chart 10). Further, unsold condos are one thing, but added to this inventory overhang is the sold but unoccupied condos being held on spec or on hope of earning rental income. Estimates of this effect in cities like Toronto have tended to be within the 25-40% range.

2. A Once in a Century Confluence of Housing Drivers

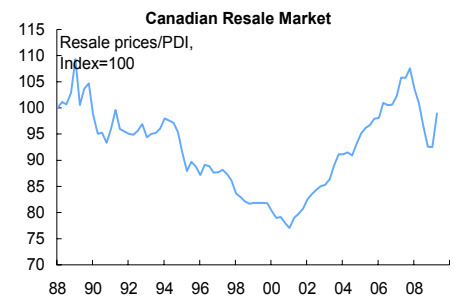
Flagging rich valuations is not, however, tantamount to predicting anything imminent by way of give back on prices. In fact, they could well push further into record territory next year, before material risks build. There are five reasons for this.

One is that most of the Canadian housing stimulus programs are not structured like they are in other countries in that they relatively lack expiration dates. See Capital Points, "A (Mostly) Bullish Case for Canadian Housing," September 11 2009, page 1 for a list of these programs.

Second, mortgage innovation only really began in Canada after the Federal Government liberalized the mortgage insurance industry in the Spring of 2006. The next section to our article expands upon this with concrete examples. The adjustment to a new equilibrium for housing demand entails bringing into the market people at an earlier stage than would otherwise be the case, and purchasing more expensive than average properties.

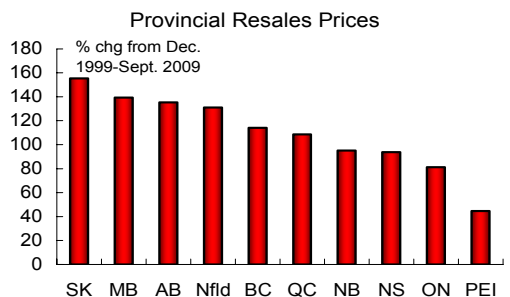
Third, we expect the Bank of Canada to begin raising interest rates only in 2010H2, and only materially by 2011. Low interest rates are driving healthy affordability right now, but this effect will wane in the next 2-4 years.

Chart 5



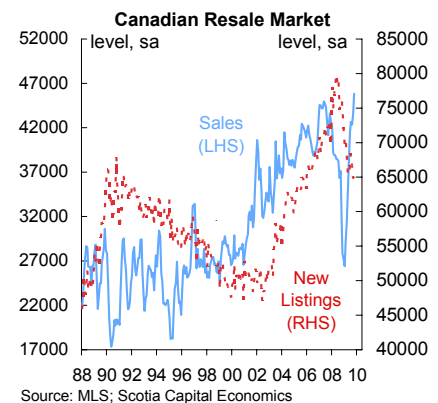
Source: Statistics Canada, Scotia Capital Economics

Chart 6



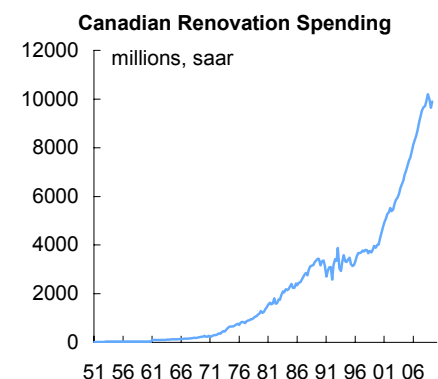
Source: CREA, MLS, Scotia Capital Economics

Chart 7



Source: MLS, Scotia Capital Economics

Chart 8



Source: Statistics Canada, Global Insight, Scotia Capital Economics



Fourth, there frankly isn't much supply out there except for condos as previously noted. Supply, however, is likely to respond and ratchet higher on both listings and new home construction next year.

Fifth, seasonal distortions were at play earlier in the year. That said, we're long past the point at which strength can be attributed to unleashed pent-up demand from last Fall when housing and auto finance markets froze up and consumer confidence plunged; that's over and done with. The surprise is that prices didn't stay down after peaking in June 2008 and hitting a trough by January 2009. A half-year moderation gave way to a march to new record prices.

3. How the Canadian Mortgage Market Is Changing

There is no question that Canada is perhaps curiously off-cycle compared to other countries by way of pursuing mortgage innovation while other countries have curtailed such activities. Stronger bank capitalization, more prudent regulatory and managerial oversight, a century's worth of sounder policies relative to countries like the US in carving out a structurally sounder banking market, work since the mid-1990s to craft a relatively much sounder fiscal environment, and among the more pro-active central banks have all set a decent backdrop within which such innovation can occur. Thus far, most of the innovation has been classically Canadian in a conservative sense, but there's no objectively doubting that the market is changing.

Canadian innovation really only began, however, after the current federal government liberalized the mortgage insurance market in the Spring of 2006. Material innovation has only been characteristic of the Canadian market for 2-3 years, but it is already having a significant impact.

Canadian industry data on mortgage product volumes that is publicly available from mortgage insurers is fairly thin, and none of the public bodies charged with duties over data collection and dissemination have much to offer either. For publicly available information, markets are thus left to ponder household surveys. One that we feel is good and generally (not perfectly) representative of what's happening is done annually by the Canadian Association of Accredited Mortgage Professionals (CAAMP). We highlight some of its results and offer comments in a few areas, with the full survey available here <http://www.caamp.org/meloncms/media/Fall%20Report%20FINAL%20ENG.pdf>.

a. Mortgage Amortization Periods

In terms of amortization periods, it was 25 or bust until three years ago when 30, 35, and 40 year amortizations became available. Now, after just three years, 18% of outstandings are over 25 yrs. 10% are 35-40 years.

As a share of new mortgage originations, 47% of mortgages originated for new purchases in the past year have had amortizations longer than 25 years, and over 60% of that share has been in 35 and 40 year mortgages. One can no longer get an insured 40 year mortgage in Canada, but uninsured 40 year amortizations are still available.

b. Mortgage Equity Withdrawals

Equity take-out financing used to be more difficult before more flexible mortgages and secured lines. Now, 18% of Canadians withdrew equity from their homes over the past year. The average amount was \$41k, and the total was \$46 billion. 52% of those withdrawing equity used some for debt consolidation, 40% used some for renos, 13% used some for purchases/education, 16% for investments, and 9% for other reasons like consumption. These are not dollar-weighted fractions of how much is being put towards such uses: they are the fractions of people using take-outs for one or more such purposes (thus they add to more than 100%). The results are similar to what surveys were saying in the US regarding the use of mortgage equity withdrawals during their peak period of influence.

c. Mortgage Terms

Mortgage terms have tended not to be affected by innovation per se, but have changed with the cycle. One key point that often goes unrecognized, however, is that fixed in Canada is not like fixed in the US. In the US, fixed is for 30 years and the mortgage

Chart 9

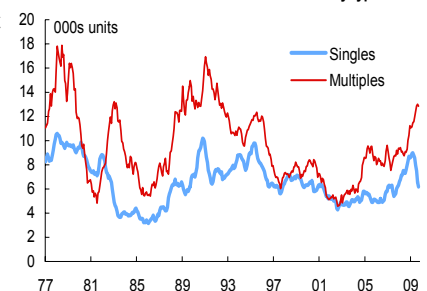
More Balanced Canadian Resale Market



Source: The Canadian Real Estate Association, Scotia Capital Economics

Chart 10

Unabsorbed Canadian new homes by type



Source: CMHC, Scotia Capital Economics



borrower has a one-way put option to put the mortgage back to the lender and refi in a falling rate environment. This is generally done easier and cheaper than in Canada. However, in a rising rate environment, that one way option in the US simply doesn't get exercised and fixed means US borrowers have relatively juicy rates for the long haul.

In Canada, however, 88% of fixed mortgages are fixed for less than five years and thus subject to staggered rate resets over this period. As a share of outstandings, 68% of mortgages are fixed, and 27% are variable with the rest being hybrid. Thus, about one quarter of mortgages reset as rates change, and almost all of the rest reset within five years after the point of origination. Over the next 2-5 years, the vast majority of Canadian mortgages will have reset at what we think will be higher variable and fixed rate costs of borrowing. That's particularly true for recent purchases. The CAAMP survey shows 20% of mortgages originated in the past year to have been at variable rates. We figure the more recent share is much, much higher.

d. Other Innovations

What's missing from the survey, however, is greater richness on other forms of product variety. I think the survey low balls the subprime share of the market compared to generally common estimates that it's around 5% of outstandings (often referenced by the Bank of Canada), yet it's still a small area generally marked by smaller niche lenders that themselves have had rocky funding and liquidity conditions over the crisis. Talk of insured investor mortgages (ie: properties not for primary occupancy, also called buy-to-rent or buy-to-let mortgages elsewhere and that represented 10-11% of the mortgage markets in the US, Australia and UK) was absent from the survey, but I think they've become more significant as a share of flows since their first introduction. The share of total mortgages that were investor mortgages was in the low single-digits around three years ago in part because mortgage insurance wasn't available on them, but the introduction of insured investor mortgages since then has enhanced their appeal particularly in the multiples sector and done so by lowering the cost of capital for borrowers. There are no public sources or surveys covering this segment.

What to make of it all? Mortgage innovation is welcome in Canada after years of little to no action in this regard, and it's vital to point out that the forms of innovation are nothing close to the mistake of mass-marketing what were at best niche products like Ninja mortgages in California, tracker mortgages in the UK, or FX mortgages in parts of Europe. But it is definitely a factor boosting near-term Canadian housing demand until a new equilibrium on take-up rates for newly introduced products has emerged.

4. Structural Differences Between Canadian and US Mortgage Markets

While the Canadian market is characterized by material amounts of mortgage innovation in recent years, it is night and day apart from the U.S. market on multiple counts for the following reasons.

- a. Canada's subprime market is small (5-6% of outstanding mortgages) whereas the U.S. share peaked at about three times that. As a share of originations, 20-25% of new mortgages in the U.S. were subprime over the 2004-06 period. So Canada isn't anywhere near as exposed to the products that caused most of the damage in U.S. housing markets.
- b. Not only is Canada's subprime market much smaller, but it isn't even really subprime per se. Canada's subprime market is more like the U.S. near-prime market, whereas the U.S. subprime market often lent to borrowers with extremely impaired quality.
- c. Adjustable rate mortgage (ARMs) resets also caused many of the problems stateside, but those resets occur much more suddenly in the U.S. Canada never had the zero-rate teasers that existed in the U.S. Further, by contrast, the closest Canadian product parallel is the variable rate mortgage, but they get constantly repriced so that people aren't caught off-guard years later. Furthermore, in Canada, some variable rate products adjust the principal, not the payment. On balance, the shock effect from payment resets in Canada is nowhere close to what has caused much of the problem in the U.S.
- d. Canada's mortgage equity withdrawal market is much smaller than it was in the U.S. at the peak of their market.
- e. Mortgage interest is deductible against taxes in the U.S. It generally is not in Canada. That creates vastly different incentives to leverage oneself in the two markets.
- f. The nature of the products has been very different in Canada versus the U.S. Examples of Canadian innovation like long-amortization mortgage products are absolutely nothing like Ninja mortgages. Mortgage innovation was needed in Canada, but has been relatively more conservative.

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g. Investor mortgages were among the first products to default in the U.S. where they account for about 9% of all outstanding mortgages, similar to the UK (9.5%) and Australia (10%). In Canada, even though this segment has been given a lift through the addition of insured investor mortgages, the magnitude of the exposure in Canada is far less significant.

h. Canada's funding model is completely different from the U.S. The majority of mortgages are held on balance sheet in Canada. Thus, much more of Canada's mortgage book is funded by on-book retail deposits than is the case in the U.S. That also makes the banks more conservative about the products they are originating since they are mostly stuck on balance sheet.

i. Further, the majority of the securitized totals have been done through the CMHC – a Crown corporation with explicit government backing – thus avoiding the problems in the U.S. caused by the ambiguity of GSE liabilities. Other insured securitizations have been done through private insurers that also receive explicit government backing for the underlying assets through the Canada Mortgage Bond program.

j. Furthermore, Canadian financial institutions are not as reliant upon short-term lines extended by other financial institutions. The degree of reliance upon such funding in the U.S. is what caused excessive exposure to short-term swings in market sentiments, not to mention adverse incentive effects.

k. Mortgage-Backed Securities (MBSs) were not placed in off-balance-sheet SIV and CDO structures as in the U.S. So, Canada MBS investors do not face the same heavily leveraged investor risks. This is perhaps the most important point, since origination mistakes in the U.S. were bad enough, but what really caused the problems were dollops of leveraging that occurred after the mortgages were originated.

l. Unlike many U.S. banks, Canadian banks continue to apply prudent underwriting standards. In other words, they have always checked, and continue to check, incomes, verify job status, ask for sales contracts, etc., such that all those questions your banker asks in Canada have a purpose that somehow got lost on many American bankers. The no-income-no-job-no-asset ("Ninja") style, here-are-the-keys-to-your-brand-new-home lending just didn't take hold in Canada. Further, in Canada, one generally has to qualify at the three year mortgage rate before then deciding whether to go fixed or floating.

m. Appraisal standards are generally higher in Canada, where appraisals are more likely to low-ball estimates of property value before making the final decision on how much to lend.

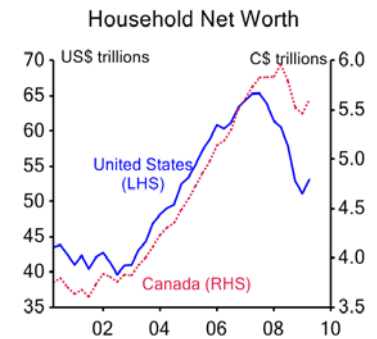
n. Finally, enforcement of Canadian mortgages is not as tilted in the borrowers' favour as it is in the United States. In the U.S., lenders have little recourse — they can take the keys and settle relatively quickly, or sue and go through great expense for a potentially lengthy period. Alberta and Saskatchewan are similar to the U.S. treatment in this regard. But the rest of Canada provides recourse to lenders unlike the U.S.

5. Canadian Household Finances—Stronger than U.S.

An added insulating factor in Canada relative to the US is the state of Canadian household finances. As chart 11 depicts, Canadians have incurred nowhere near the shock to household net worth as Americans. Further, Canadian households are generally much less indebted than Americans when properly measured (chart 12), although Canadian household debt relative to incomes is high by the country's own historical norms.

All of this having been said, there is no doubt that the consumer bankruptcy picture is deteriorating in Canada and so are mortgage delinquencies (Charts 13 and 14). The

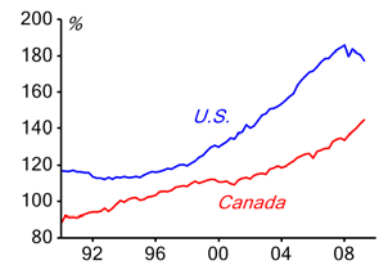
Chart 11



Source: Statistics Canada, Federal Reserve, Scotia Capital Economics

Chart 12

Households and Unincorporated Business debt % PDI



Source: Statistics Canada, Federal Reserve, Scotia Capital Economics

Chart 13

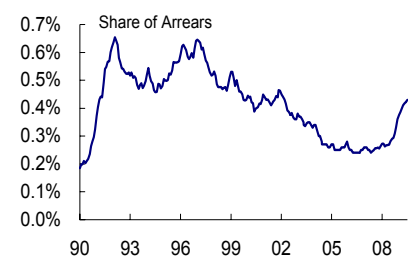
Canadian consumer bankruptcies



Source: Office of the Superintendent of Bankruptcy, Scotia Capital Economics

Chart 14

Canadian Mortgage Delinquencies: 90-day+ Arrears



Source: Canadian Bankers' Association, Scotia Capital Economics



deteriorations, however, are from extremely low cyclical levels and remain far lower than that experienced in other major markets.

6. Bank of Canada Implications

Would evidence of a housing bubble, or the lack thereof, materially impact the Bank of Canada's conditional commitment to keep rates on hold until the end of 2010Q2 *conditional upon the inflation outlook*? In other words, would accelerating home prices materially affect inflation risks, given that the BoC is among the stricter inflation-targeting central banks? Not likely, in our opinion, and for seven reasons.

1. Within the overall CPI basket, total owned accommodation accounts for about 16% of CPI. That, in turn, includes mortgage interest costs, housing replacement costs, property taxes, homeowner's insurance, maintenance and repairs, and miscellaneous "other" components. The table at right shows the weights in the overall CPI basket for total shelter costs, and the individual components. Replacement cost on its own accounts for a small 3-4% of the total CPI basket, and aligns most closely with new home prices.

2. Resale prices do not directly show up in the consumer price index. Instead, new home prices are the driver, and their pace of gains is more muted than resale price gains both now and throughout this decade.

3. Within the Bank of Canada's 12-24 month policy horizon, it is not at all inconceivable that the pace of house price gains will come to slow in any event for reasons that we argued in this paper. It isn't clear that the BoC would want to accelerate those forces via pre-emptive tightening.

4. The disinflationary influences of a strong Canadian dollar are more important influences on imported components of the CPI basket than housing.

5. The BoC is likely to take signs of strength in the economy where it can get it, given downsides to other areas of the economy. The BoC has been quite candid in acknowledging a strong domestic economy, against which is weighed what Governor Carney has argued to be the fully offsetting influences of a strong Canadian dollar. A record trade deficit, and still high inventories outside of autos that will mute a production recovery are among the offsets to solid consumer and housing markets.

6. The BoC's reaction function is also an important consideration. We might think that the pace of price gains and the level of current valuations are rich, but thus far, the BoC is signaling little concern. We quote from the Bank of Canada's recent *monetary policy report*, page 24, "Growth in housing investment is projected to be brisk until early 2010, and then to slow down as the effects of temporary factors—such as pent-up demand and the home renovation tax credit—subside and affordability declines." In fact, the BoC's latest projections have housing flat-lined on a contribution to GDP growth basis in 2010 and 2011 such that their clearly communicated concern thus far has been that housing strength won't last. As we argued in this paper, we agree, but our concern has to do with what the implications will be for home prices over the next 2-3 years.

Secondly, over time, the BoC has been fairly careful to stress the role of monetary policy as a blunt instrument that leads them to be less concerned about region- and asset-specific markets in the conduct of monetary policy.

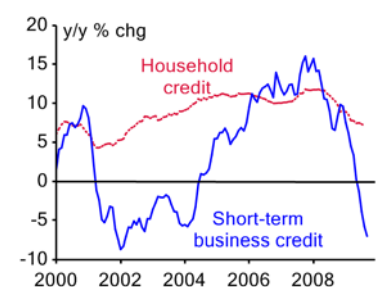
7. Even if the BoC is concerned about the transmission effect of inflation asset bubbles on credit growth, it has little reason to be concerned as yet. Growth in total household credit is off its peak, and companies continue to reduce levels of short-term business credit (C\$ and FX lines, BAs, and CP) such that chart 15 depicts little concern over credit growth in Canada at this juncture.

Table 1

	Weights
Shelter	26.62
Rented accommodation	5.36
Rent	5.23
Tenants' insurance premiums	0.08
Tenants' maintenance, repairs and other expenses	0.06
Owned accommodation	16.48
Mortgage interest cost	5.66
Replacement cost	3.27
Property taxes (including special charges)	3.31
Homeowners' insurance premiums	1.15
Homeowners' maintenance and repairs	1.51
Other owned accommodation expenses	1.58
Water, fuel and electricity	4.77
Electricity	2.51
Water	0.51
Natural gas	1.33
Fuel oil and other fuel	0.42

Chart 15

Canadian Credit Growth



Source: Statistics Canada; Scotia Capital Economics