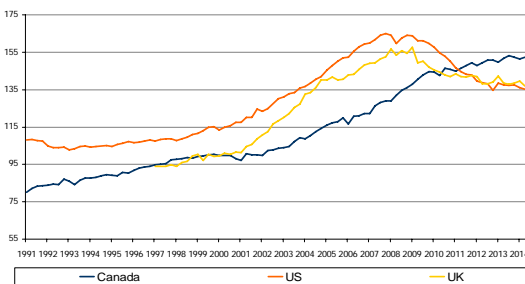


Chart 1

Household debt to income

Credit market debt as a % of personal disposable income

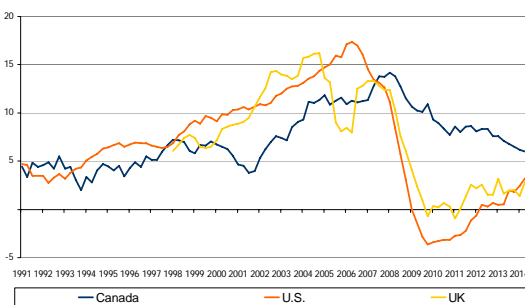


Source: Statistics Canada, Bureau of Economic Analysis, Federal Reserve Board, Office for National Statistics, RBC Economics Research

Chart 2

Household credit cycles

Household debt flows to PDI, %



Source: Statistics Canada, Bureau of Economic Analysis, Federal Reserve Board, Office for National Statistics, RBC Economics Research

Canada's "constructive evolution" of household debt

A bounce in mortgage borrowing associated with a seasonal rise in housing market activity in the spring supported credit growth rising at a faster pace than income gains in the second quarter of 2014. As a result, the debt-to-income ratio edged up to a near record 163.6% from 163.1% in the previous quarter (on a non-seasonally adjusted basis). This follows the Bank of Canada's warnings that the elevated level of outstanding debt is a key vulnerability to the stability of the financial system; although the Bank has also previously noted that household imbalances are undergoing a "constructive evolution". Recently, however, the strengthening in housing activity underpinned their observation that the risks posed by household imbalances have not diminished and subsequently, the "constructive evolution" description was notably absent in the September policy statement. The pause in the improvement of household imbalances is expected to be transitory and this note examines why it will likely get back on track despite outstanding balances rising to record highs.

Canada—to follow the path of international peers?

The debt-to-income ratios in the United States and the United Kingdom reached record highs of 165% and 157%, respectively, in the final quarter of 2007 and first quarter of 2009 and the close proximity of Canada's measure has provoked concerns that Canada will face a similar disorderly unwinding of household imbalances. Contrasting regulatory environments and lending conditions inhibit a direct comparison, however, accounting for methodological differences yields a comparable debt-to-income measure in Canada of 152.2% in Q2/14 (Chart 1)¹. While remaining historically elevated, in the absence of domestic or external macroeconomic shocks, a period of sustained income gains alongside modest increases in credit are expected to result in the debt-to-income ratio stabilizing over the coming quarters, albeit remaining at levels above the US and UK. This is in sharp contrast, however, to these countries where credit accumulation as a share of disposable income fell sharply after accelerating for well over a decade with a prolonged period of deleveraging and default by US households beginning in 2009 (Chart 2).

Canada is at a different stage of the credit cycle than its international peers². After accelerating to a peak in 2008, the accumulation of household credit has been firmly entrenched in a gradually moderating trend. This is notable for the development of risks in Canada as the Bank for International Settlements concluded that the emergence of a financial crisis in the country occurs "at, or close to" the peak of the financial cycle³. In comparison, credit growth fell sharply over the 2008–2010 period in the US and UK. As a result, these countries' households are now poised to increase their borrowing, with credit growth picking up. Elevated indebtedness of Canadian households, however, has diminished their capacity to borrow, resulting in a slowing in credit accu-

Chart 3

Credit market debt accumulation vs. Income growth: Canada

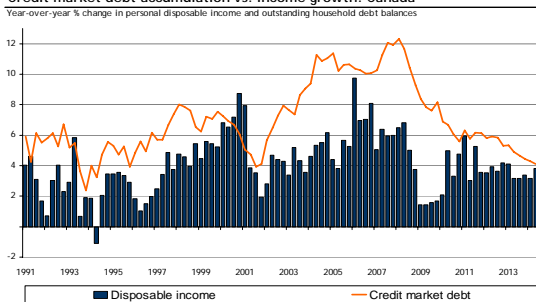


Chart 4

Credit market debt accumulation vs. Income growth: US

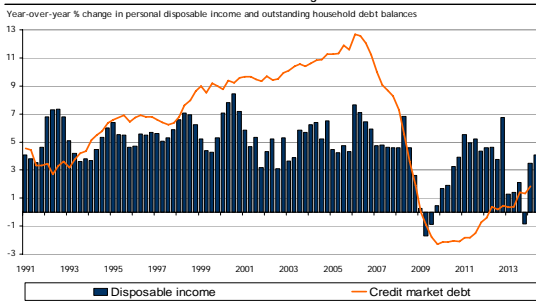


Chart 5

Existing home prices

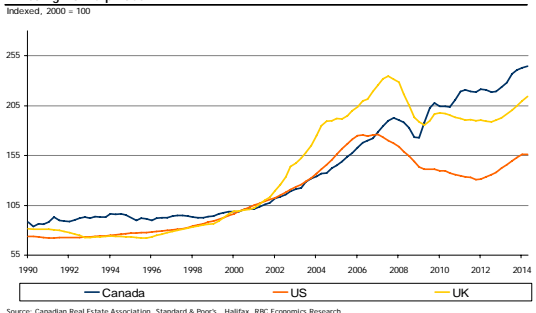
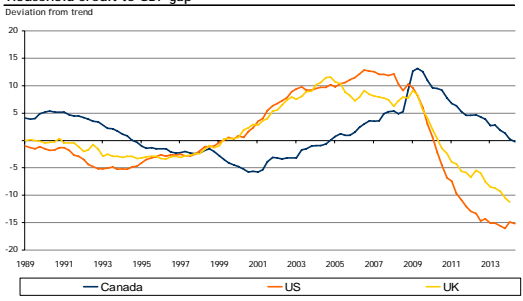


Chart 6

Household credit to GDP gap



mulation (Chart 2). That said, debt levels are still rising and leave Canadians vulnerable to a shock. Barring the realization of downside risks to employment and growth, a strengthening economic backdrop and the stage of credit growth should help to keep a lid on the risks of a sharp deleveraging; in sharp contrast to the experience recorded in the US (Chart 4), and to a lesser extent, in the UK.

The risks of a disorderly unwinding of household imbalances are still present, however. A key risk to the stability of the financial system lies in a sharp correction in house prices accompanying a large macroeconomic shock. Recent stronger than anticipated housing activity prompted the Bank of Canada to shift its characterization of the risks of household imbalances from a “constructive evolution” in its June and July policy statements to acknowledge that the risks had not diminished in September. Following a brief softening in 2009, home prices rebounded strongly in Canada and have since sustained an upward trend. This is in contrast with the price trends that transpired in the US and UK at that point (Chart 5). In 2012, the Bank of Canada noted that a reduction in the risks posed by indebted households would require a “combination of deleveraging by vulnerable households and a reduction in housing market imbalances”⁴. The latter has yet to unfold and the risks posed by leveraged households persist; however, with activity in real estate expected to cool and price gains to diminish, imbalances are expected to resume their constructive evolution as a prolonged period of building credit balances relative to income growth subsides (Chart 3).

Another indication of broad leverage in the economy, the deviation of aggregate private sector credit-to-GDP from its trend, provides an early warning signal of financial stress in the economy⁵. By normalizing credit as a ratio of GDP, the cyclical pattern of credit demand is smoothed and the deviation of this ratio from its long run trend, according to the Bank of Canada, serves as a “rough measure of excessive leverage across the financial system”⁶. In the US and UK, the household credit to GDP gap widened sharply in the period leading up to the financial crisis as rising household credit expansion contributed to a build up of system-wide risks. While Canada’s gap rose sharply in 2009, the development was not solely driven by household leverage, but rather a notable decline in the gross domestic product reflecting the economic downturn. In the first quarter of 2011, the measure was close to 5% and prompted the Bank of Canada to note that it “does not necessarily indicate that serious financial problems are forthcoming, but it is a strong argument for continued heightened monitoring of the dynamics in household credit”⁷. In the second quarter of 2014, this indicator of excessive leverage sat near 0, suggesting that growth in household borrowing is broadly in line with its historical trend relative to GDP (Chart 6) and its firmly entrenched moderating trend supports the “constructive evolution” of household imbalances.

The persistence of historically low interest rates has kept household debt obligations manageable despite outstanding credit balances rising to all-time highs. The share of households’ disposable income that is required to service mortgage and non-mortgage interest payments fell to a record low in the second quarter of 2014, at 6.94% (6.63% on a US comparable basis). This is in contrast to the 8.5% and 10.6% recorded in the US and UK at the peaks of their debt-to-income ratios. As



well, the cost of servicing Canadians' record level of debt is only modestly higher than the current comparable ratios in the US and UK (at 4.9% and 5.3%, respectively) despite these latter countries having experienced a sharp pullback in household debt since 2009. Interest rates are expected to gradually normalize, boosting debt service costs in Canada. However, this is likely to be accompanied by a strengthening economic backdrop and rising income gains, thus helping Canadian households to absorb the additional costs of servicing record balances of outstanding debt and keeping debt servicing costs at low levels.

The debt service measure accounts only for interest payments required on outstanding debt balances, however. The inclusion of an estimate for mortgage principal payments indicates that the share of disposable income dedicated to servicing households' record levels of mortgage debt (which makes up 70% of total outstanding balances) has not lessened in the low interest rate environment (Chart 7). As well, adjusting the measure to include only the incomes of homeowners with a mortgage boosts the ratio close to an estimated 20%; although it is important to note that this impacts only about 40% of households with the remaining share either renting or owning their homes outright⁸. The accumulation of new mortgage debt also continues to outpace principal repayments resulting in these repayments accounting for a declining share of the outstanding balance of mortgage debt, sustaining the level of overall household imbalances (Chart 8)⁹. That said, the impact of rising interest rates will be staggered across time as homeowners, likely facing higher rates upon renewal, refinance across differing mortgage term periods. A sustained slowing in the accumulation of mortgage debt, pending a stabilizing in overall housing activity and minimal price gains should further ease the risks posed by the record \$1.2 trillion in outstanding mortgage balances.

Elevated levels of debt do make households more sensitive should economic conditions deteriorate, the housing market stumbles or if interest rates rise more sharply than anticipated. As well, after a protracted period in a historically low interest rate environment, households may have a heightened sensitivity to modest increases in interest rates than previously. The Bank of Canada highlighted these concerns, citing the elevated household indebtedness as a key vulnerability to the stability of the financial system. In the absence of an unforeseen macroeconomic shock, the risks of a disorderly unwinding of household imbalances are expected to remain contained¹⁰. Despite Canadians having record levels of outstanding debt, households also have 70% equity in their homes, the share of mortgages in delinquency has sustained a downward trend since 2011 and the asset side of the balance sheet remains well diversified across both financial and non-financial assets (Chart 9). As well, the firmly entrenched slowing trend in credit market debt growth and the persistence of a historically low interest rate environment should help to sustain the "constructive evolution" of household imbalances going forward (Chart 10).

Notes

1. "Reconciling Canadian-U.S. measures of household disposable income and household debt". Statistics Canada. <http://www.statcan.gc.ca/pub/13-605-x/2012005/article/11748-eng.htm>
2. According to the IMF, a typical credit cycle starts when funds are easy to borrow, a period characterized by low interest rates, rising collateral values and easing lending requirements. This period is followed by tightening in the availability of funds, when

Chart 7

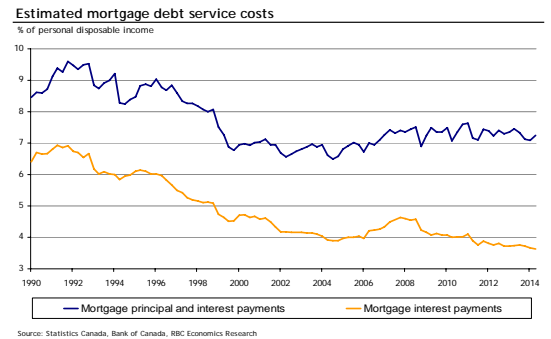


Chart 8

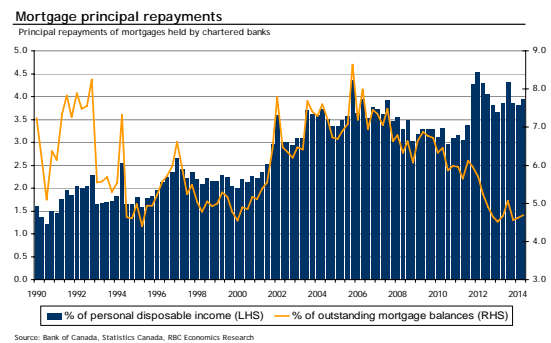


Chart 9

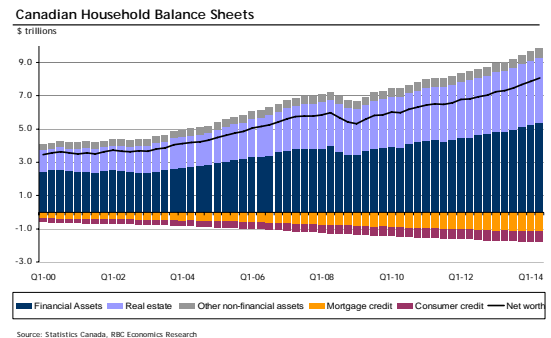
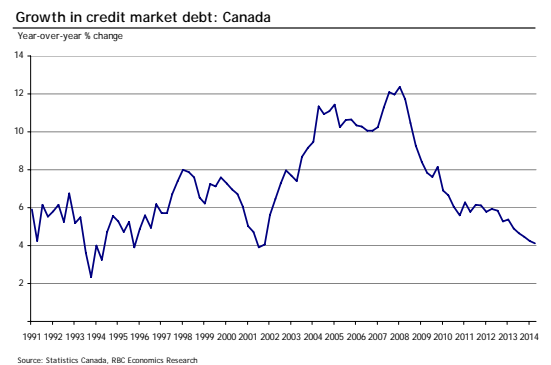


Chart 10



interest rates go up and collateral values fall, leading fewer people to borrow. “Financial Cycles: What? How? When?” International Monetary Fund. April 2011.

3. “The financial cycle and macroeconomics: What have we learnt?” Bank for International Settlements. December 2012.
4. Bank of Canada. *Financial System Review*, June 2012.
5. Bank of Canada. *Financial System Review*. December 2010: “The Countercyclical Bank Capital Buffer: Insights for Canada”.
6. Modelling Risks to the Financial System. Remarks by Agatha Cote to the Canadian Association for Business Economists: August 21, 2012.
7. Bank of Canada. *Financial System Review*, June 2011.
8. Estimating a gross debt service ratio using the stock of outstanding mortgage balances, the average 5-year mortgage rate, homeownership rates, the number of households and the share of homeowners with a mortgage.
9. Includes only mortgage lending by chartered banks (accounts for approximately 75% of total mortgage lending).
10. The Bank of Canada outlined the key risks to the stability of the financial system as a sharp correction in house prices, a sharp increase in long-term interest rates globally, stress emanating from China and other EMEs and serious financial stress from the euro area.

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