Economic Viewpoint

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Simulation results: How vulnerable are Quebecers to an interest rate increase?

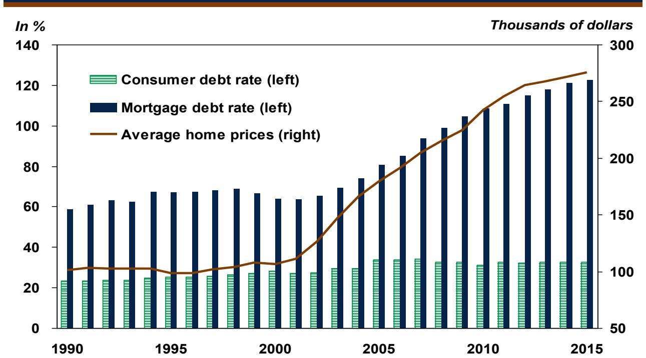
As elsewhere in Canada, Quebecers' debt loads have gone up much faster than their incomes in the last few years. However, because of the drop in interest rates, the weight of monthly payments has stayed reasonable for households overall. The situation seems better than it is for Canada as a whole and for Ontario since the debt rate is lower in Quebec. Failing an unexpected shock, such as a rapid, major increase in interest rates, households will continue to have a relatively good ability to meet their financial obligations, with fewer than 5% still having trouble paying off their debts. This Economic Viewpoint includes two simulations of interest rate hikes, which show that a rise would have an impact on households' financial situation. The debt loads of numerous households would reach critical levels, and could compromise loan repayments. While Bank of Canada rate increases will apparently be a while in coming, this is a major concern over the medium term.

DEBT HAS INCREASED SUBSTANTIALLY

Quebec's household debt levels have climbed sharply in the last 15 years. For a variety of reasons, mortgage loans have increased much more quickly than after-tax income. Average home prices have skyrocketed, going from $100,000 in 2000 to $275,000 last year, which, with the move to homebuying, has inflated the value of mortgages. The boom in mortgage lines of credit also explains the rapid surge in mortgage debt levels, which went from 64.0% in 2000 to 122.5% last year (graph 1). The consumer debt rate, meanwhile, ticked up, going to 32.5% in 2015. This category includes consumer loans, credit cards, credit lines and lease-to-buy car loans.

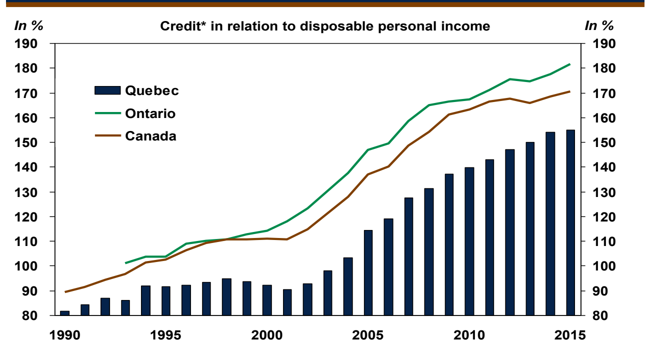
Total borrowing by Quebecers has increased more than their after-tax income, pushing debt loads up sharply. Debt loads have increased nationwide, and in Ontario, increasing their respective debt ratios to 170.5% and 181.4% last year (graph 2). At 155.0%, Quebec's debt ratio is much lower, primarily due to the difference in home prices. Nationwide, the average home price was close to $445,000 in 2015, $465,000 in Ontario, and $275,000 in this province. In general, the value of mortgage financing is lower in Quebec. Accordingly, the debt load is smaller, even though the average income is lower than it is elsewhere in Canada.

Graph 1 – In Quebec, rising home prices have boosted the mortgage debt rate



Sources: Statistics Canada, Canada Mortgage and Housing Corporation, Bank of Canada, Institut de la statistique du Québec, Quebec Federation of Real Estate Boards, Centris® system and Desjardins, Economic Studies

Graph 2 – Debt has increased faster than income in the last 15 years



* Total consumer and residential mortgage credit outstanding.
Sources: Statistics Canada, Canada Mortgage and Housing Corporation, Bank of Canada, Institut de la statistique du Québec and Desjardins, Economic Studies

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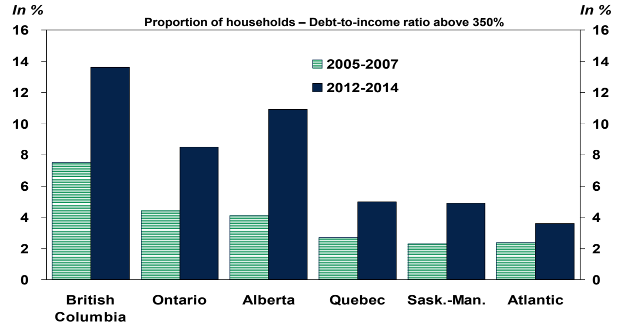
Quebec's more affordable residential market also results in fewer highly indebted households than Ontario, British Columbia and Alberta (graph 3). The Bank of Canada[1] considers households with debt-to-income ratios greater than 350% to be highly indebted. Although it has increased nationwide in recent years, Quebec is doing well, with 5% of Quebec households in this situation.

Graph 3 – The proportion of highly indebted households is relatively low in Quebec



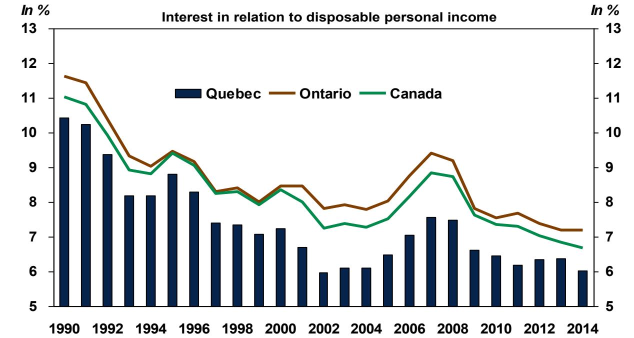
Sources: Bank of Canada, Ipsos Reid and Desjardins, Economic Studies

BUT THE WEIGHT OF INTEREST HAS COME DOWN

There are several shortcomings with the debt to after-tax income ratio, however. For one thing, although it takes many years to repay loans, particularly mortgage loans, the debt is compared with the income for a single year, making it unwieldy to interpret. The combined sum of loans with different due dates do not have to be paid off in a single year! For another, this metric does not factor in interest rates. The debt-to-income ratio therefore does not assess households' financial capability for making their monthly payments.

Yet, the cost of borrowing has made a huge difference in recent years. Interest rates have fallen to very low levels, allowing many households to finance their debt more cheaply. Moreover, the boom in personal lines of credit, which charge interest rates that are lower than the rates charged on conventional loans, has decreased interest payments over the years. According to Statistics Canada, total interest paid accounts for a small portion of Quebecers' incomes (graph 4). Given higher borrowing levels and lower interest rates, are borrowers' monthly payments (principal and interest) more or less difficult to meet than previously?

Graph 4 – The weight of interest payments[1] on loans of all types has declined in recent years



[1] Interest paid on mortgages and all other consumer loans.
Sources: Statistics Canada and Desjardins, Economic Studies

THE ABILITY TO REPAY IS MORE REVEALING

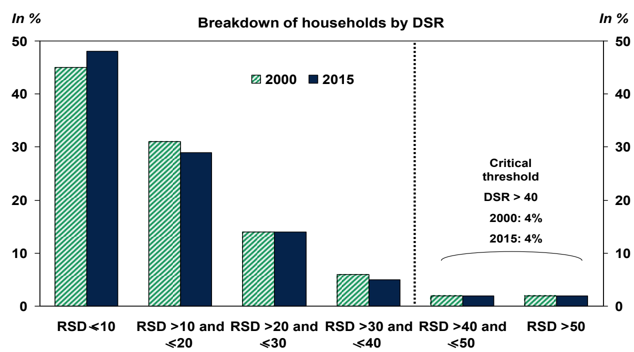
The debt-service ratio (DSR) helps answer this question, as it simultaneously factors in debt loads, interest rates, and household incomes. The DSR measures the total financial commitment associated with debt repayment based on gross income. For all households, the average DSR has held at around 16% for the last 10 years in Quebec. Principal and interest payments therefore take up a reasonable share of indebted households' income. Although debt loads have risen in recent years, the drop in interest rates has helped contain the weight of loan repayments. However, the situation is a concern. The eventual rise by interest rates and high debt-to-income levels could be a tough combination to deal with.

The average DSR, which has been stable over the years, shows that the risk of running into serious financial trouble has not increased for households in general. For some households, however, the situation may have deteriorated. A breakdown of households according to debt load paints a clearer picture. If loan payments take up too big a share of gross income, borrowers are quite likely to be unable to meet their financial commitments. The Bank of Canada deems households with DSRs in excess of the critical 40% threshold to be vulnerable, meaning that they could have trouble making their payments.

[1] Cateau, Gino, Roberts, Tom and Zhou, Jie. "Indebted Households and Potential Vulnerabilities for the Canadian Financial System: A Microdata Analysis," Bank of Canada, Financial System Review, December 2015. http://www.bankofcanada.ca/wp-content/uploads/2015/12/fsr-december2015-cateau.pdf

The distribution of households by DSR has not shifted much in the last 10 years. More specifically, the proportion of households whose monthly principal and interest payments are above the critical threshold has held at 4%, and the other categories have not seen much change (graph 5). Although households with DSRs above 40% seem more vulnerable, those with ratios between 30 and 40% also present a potential risk. They could quickly end up in a precarious position in the event of an unforeseen situation. In fact, the more debt a household has, the more vulnerable it is to certain events, such as separation, serious illness, loss of employment or a sudden rise in interest rates.

Graph 5 – Breakdown of households by debt service ratio (DSR)

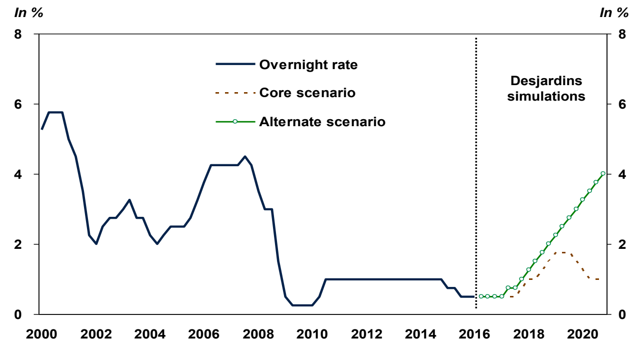


Sources: Ipsos Reid and Desjardins, Economic Studies

IMPACT OF THE RISE IN INTEREST RATES

Given the economic problems in the country, Bank of Canada interest rate increases seem far in the future. The risk associated with higher interest rates is therefore not an immediate risk to households' financial soundness, but the situation could be more problematic over the medium term. To assess the impact of an eventual interest rate increase, we performed two simulations. The first simulation depicts how the DSR will evolve based on our current interest rate forecast scenario. Our core scenario calls for the overnight rate to rise to nearly 2% by 2019; it is now at 0.50%. The second simulation considers an alternate scenario, with interest rates going up twice as much as projected (graph 6). This would put the overnight rate at 4% within five years. Although this may seem high, according to the Bank of Canada, a neutral interest rate[2] is between 2.75% and 3.75%. Note that the overnight rate stood at 5.75% at the beginning of 2000 and 4.25% at the end of 2007.

Graph 6 – Interest rate scenarios for simulations household debt loads



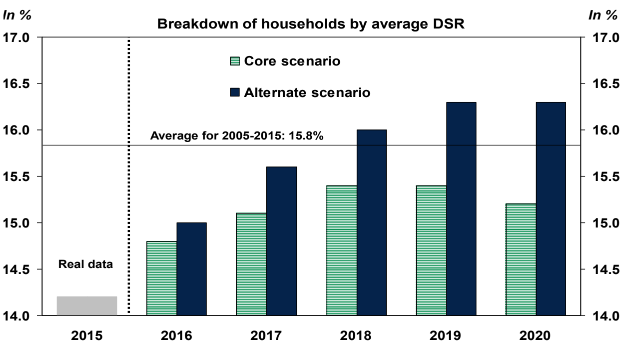
Sources: Datastream and Desjardins, Economic Studies

The impact of an increase in borrowing costs would differ with the various lending products. For most mortgage loans and conventional consumer loans, the impact is only felt when the loan is renewed. This lag does not occur with variable-rate mortgage loans and personal lines of credit, whose rates are tied to financial institutions' prime rates. Because credit card interest rates are relatively stable, monthly payments are little affected by changes to interest rates. The simulations took the features of different loans into account so as to consider these factors. This approach is fairly realistic, in that interest rate changes do not necessarily immediately affect monthly payments. The impacts are felt as loans are renewed, therefore constituting a medium-range issue for households' financial situations.

Both simulations show the proportion of household income devoted to loan repayments increasing as of 2016. The average DSR would rise slowly by more than one percentage point in the core scenario, and by close to two percentage points in the alternate scenario (graph 7 on page 4). The financial burden would become harder to bear for households overall, even assuming a constant debt level. In the alternate scenario, the average DSR would be higher than the average for the last 10 years. In both cases, the increase in the DSR for all households shows that their financial situation would be affected, gradually and permanently.

2 Consistent with an economy that achieves its full potential and inflation within the target range.

Graph 7 – Debt service ratio (DSR): Results of interest rate increase simulations



Sources: Ipsos Reid and Desjardins, Economic Studies

Given an increase to interest rates, what would the proportion of vulnerable households be? With an interest rate increase consistent with the core scenario, the share of households with DSRs above 40% would barely change. About 4.5% of these households would be deemed vulnerable compared to 4.0% last year. Households therefore seem to be able to absorb small increases in borrowing costs without too much damage. With the alternate scenario (bigger interest rate increases), 5.5% of households would go over the critical debt load threshold. In just five years, more than 25,000 additional households would tip into this zone, where they would be at risk of defaulting on their payments. The number of vulnerable households would increase from about 100,000 to 125,000. They would not all necessarily be insolvent, but the likelihood would still be quite high. A slow, unexpected rise by the Bank of Canada's overnight rate to 4% would have a substantial adverse impact, as many households would have to deal with very heavy payments on their debt.

Those households would have to show discipline to fix their financial situations. The households with high DSRs would certainly have more trouble meeting their financial obligations than the others. Although households with DSRs above 40% seem more vulnerable, households with ratios between 30 and 40% also present a potential risk. They could quickly end up in a precarious position in the event of an unforeseen situation. In fact, the more debt a household has (box 1), the more sensitive it is to an interest rate increase, or to any other personal event that could affect income for a time.

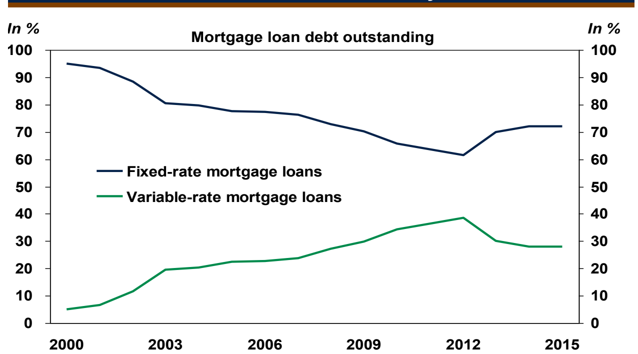
BOX 1: SOME HOUSEHOLDS AVOID DEBT

According to the Ipsos Reid survey, the Canadian Financial Monitor, about 30% of Quebec households have no debt. This group includes households with no credit products, and households that use credit products but systematically pay off their monthly balances (this essentially applies to those with credit cards or personal credit lines). In principle, households that don't borrow, or do so in a much disciplined way, are not financially vulnerable. In general, these are people who are at a later stage in their lives. At this point, many homeowners have paid off their mortgages, acquiring substantial financial leeway. An eventual increase in borrowing costs would have no impact on 30% of the province's households, because they do not carry any debt. However, this should not trivialize the potential impact of an interest rate increase, as 70%—more than two million households—would be affected to some degree. The simulations presented in this Economic Viewpoint therefore focus only on Quebec households that are carrying debt.

SENSITIVITY TO INTEREST RATE HIKES HAS INCREASED

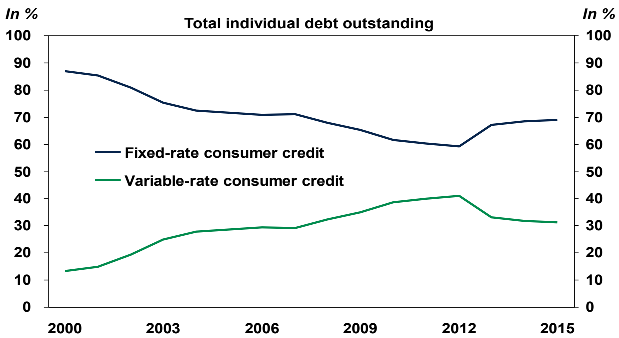
While the distribution of mortgage and consumer credit has not changed much since the early 2000s, product types have evolved substantially. For example, loans with fixed interest rates are much less popular. Variable-rate mortgage loans have increased, now accounting for nearly a third of the market (graph 8). In consumer credit, about 40% of loans

Graph 8 – Variable-rate mortgage loans have increased in the last 15 years



Sources: Ipsos Reid and Desjardins, Economic Studies are variable-rate loans. Variable-rate loans now account for more than 30% of all loans to individuals (mortgage and consumer loans); they accounted for around 10% 15 years ago (graph 9).

Graph 9 – The magnitude of variable-rate financing to individuals has increased since 2000



Sources: Ipsos Reid and Desjardins, Economic Studies

These changes mean that households are now more vulnerable to changes in interest rates. The appeal of personal credit lines and variable-rate loans, which are tied to the Bank of Canada's key rates, mean that increases are passed along to borrowers almost immediately. Traditional consumer loans, which have become less popular in the last few years, have rates that are fixed for the term of the loan (three to five years in many cases), giving borrowers some protection from sudden fluctuations. Low interest rates have made credit lines very attractive, but make households more vulnerable to an increase.

CONCLUSION

Although Quebecers seem to have their financial situations under control for now, a rapid, substantial increase in interest rates would have major repercussions. More households would have difficulty repaying their loans. Households with variable-rate loans would feel the impact with every Bank of Canada key rate increase. The central bank should therefore consider the potential impacts on households of a possible monetary thightening. For fixed-rate loans, the impact would be felt upon renewal, and depend on the maturity date. Given that the amount outstanding on variable-rate loans now accounts for one-third of total borrowing, households' vulnerability to an interest rate increase has grown in the last 15 years.

Moreover, the Bank of Canada deems that high household debt levels constitute a major risk over the medium term. Households' ability to stand up to an increase in the cost of money is raising serious worries. Although the debt-to-income ratio is lower in Quebec, and interest rate payments are less than they are in Ontario and nationwide, the issue is just as important. Given that interest rate increases seem to have been put on the back burner until the end of next year, households must jump on the opportunity to clean up their balance sheets. If the most vulnerable households capitalize on the period of respite to reduce what they owe, that would lessen the risks associated with rising interest rates. Otherwise, the eventual rise by interest rates and important debt-to-income levels could be a tough combination for many households to deal with.

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