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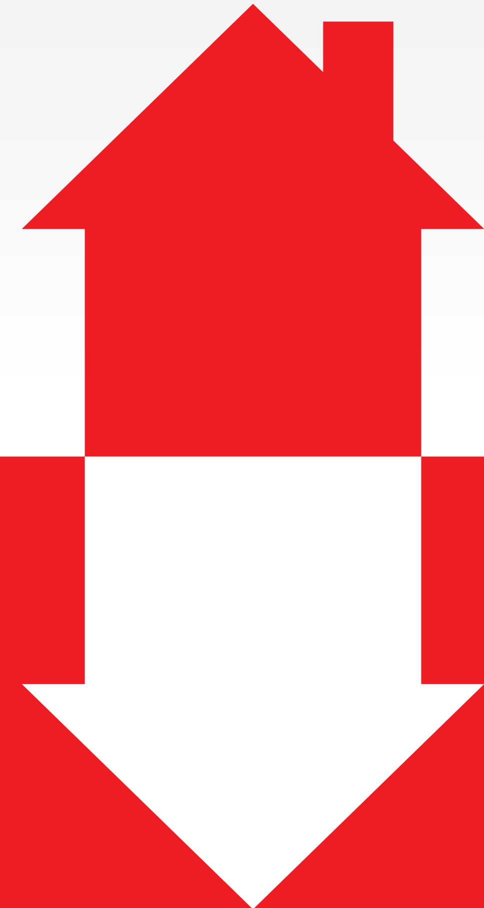
FINANCIAL MARKETS

Special Report



Reality check: Are Canadian households perched over a sinkhole?

May 10, 2018

Reality check: Are Canadian households perched over a sinkhole?

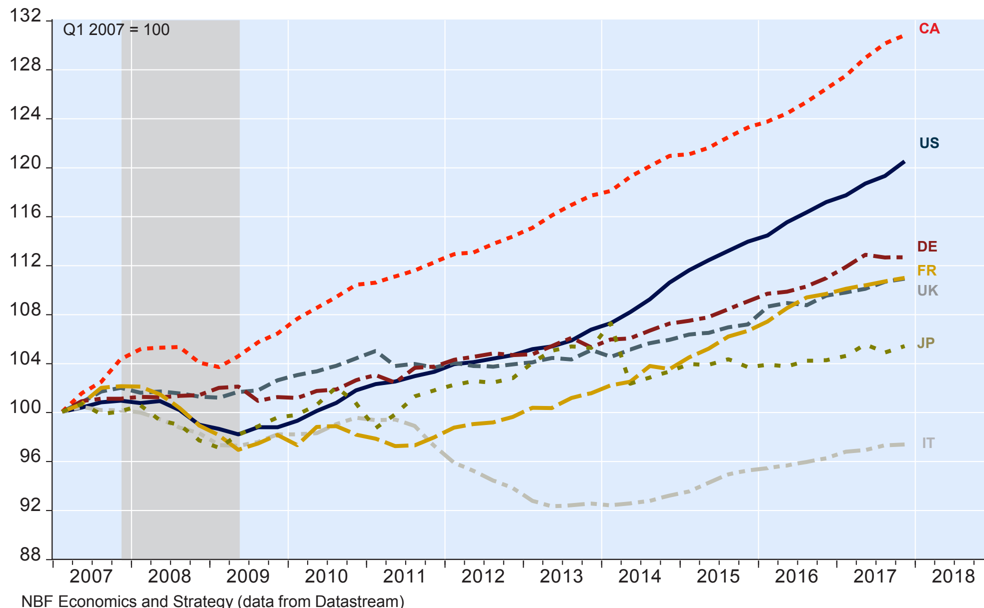
By Matthieu Arseneau

- **There are widespread concerns about the vulnerability of Canadian households to rising interest rates. While some borrowers will undoubtedly be more sensitive to higher rates, the current structure of household debt market suggests that the coming payment shock will be relatively subdued for the economy as a whole.**
- **We calculate that the payments shock would amount to less than 3 tenths of aggregate disposable income in 2018 and 2019.**
- **Considering that real disposable income has grown an average 2.5% annually over the last ten years, that amounts to a slight touch on the brakes, not the drastic slowdown mooted by the current buzz. The effect on GDP would be at most 0.2%.**

The growth of Canadian GDP since the beginning of 2007 has outstripped that of every other G7 economy. This remarkable showing has been due mainly to the vigour of consumer spending in Canada, which over 11 years has grown 30% — 10 percentage points more than in the U.S., the second-place G7 country.

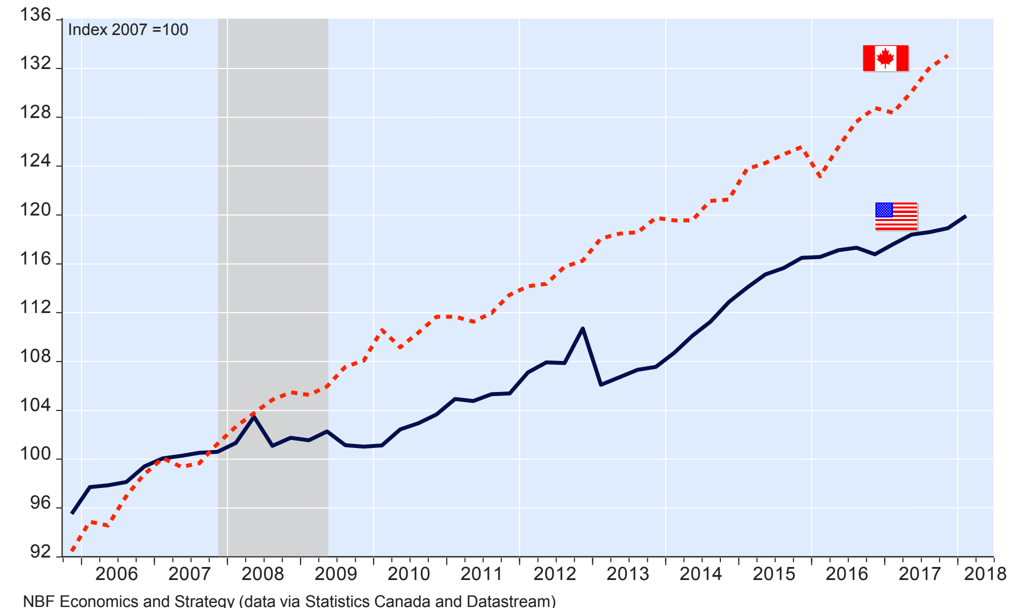
Besides favourable demographics and a strong labour market reflected in disposable income (chart), there is no doubt that low interest rates have played a role in fuelling consumption in Canada. First, households have been able to avail themselves of low-cost credit to support spending. Second, the cost savings on their existing loans have made more money available for consumption.

Canada: Consumer spending well above the rest of the G7
Real consumption since 2017



NBF Economics and Strategy (data from Datastream)

Canada: Growth in disposable income has also been strong
Real disposable income: Canada vs. the U.S.



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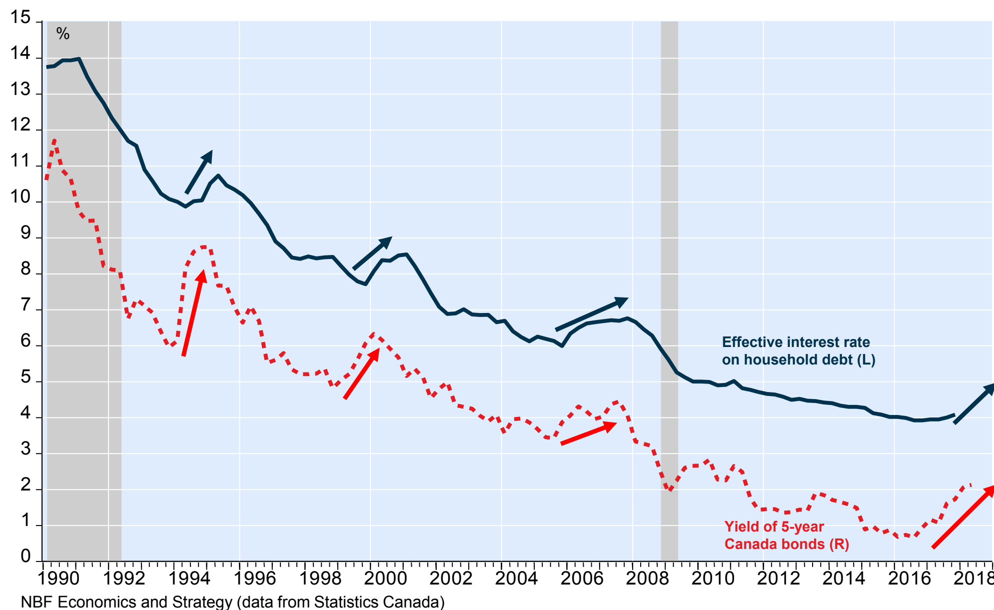
So what about now, when interest rates are on the rise? The effective rate on household debt has stopped falling and the recent rise of benchmark interest rates is already the steepest in nearly 20 years (chart). Erroneous numbers have recently been circulating in the media to the effect that almost half of Canadian households must renew their mortgages this year, suggesting difficult times is imminent given record household debt. In this Special Report we weigh the vulnerability of the Canadian economy to a rise in the cost of servicing the existing household debt.

Canada: Effective interest rate on household debt will rise
Effective interest rate on household debt and yield of 5-year Canada bonds



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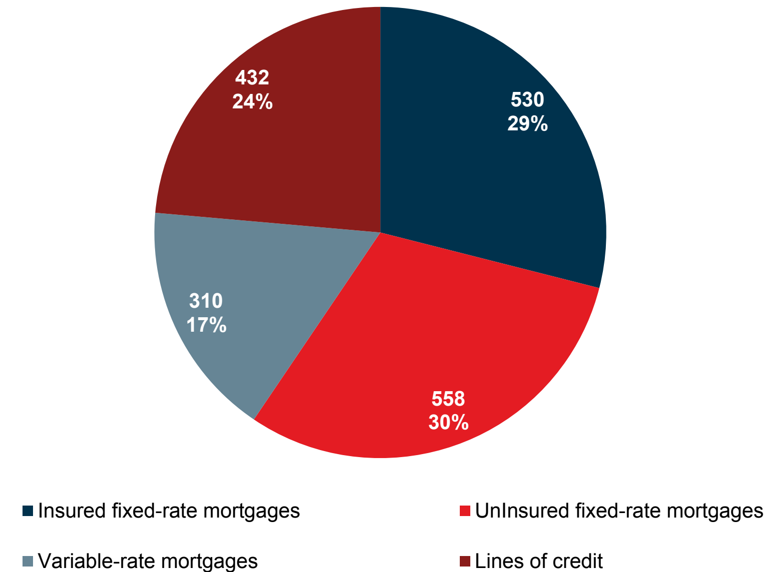
Structure of household debt

Canadian household debt amounted to $2.131 trillion at year end 2017. But not all of that amount is exposed to a rise of interest rates. Instalment loans, for example, are paid off entirely at the contracted rate and the cost of servicing them does not rise with interest rates. The same is true of credit cards, whose interest rates do not adjust frequently. By our estimate, the debt exposed to rate rises is $1.830 trillion (chart).[1] Interest rates on lines of credit ($432 billion) and on variable-rate mortgages ($310 billion) usually track the policy rate and thus have immediate effect on household interest payments. For fixed-rate mortgages ($530 billion in insured and $558 billion in uninsured loans), the effect of rate rises will be gradual, since it will vary with the amounts to be renewed and the rates prevailing when the loan was contracted.

Breakdown of household debt exposed to interest-payment shock (1)
Year end 2017, $ billion



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A look at mortgage renewals

The market in mortgage-backed securities can shed light on the picture for insured loans. We accordingly compiled the contractual interest rates of loans maturing over the next four years. For loans maturing this year they average 2.94%, or 40 basis points less than the market rate of 3.34% available at this writing (chart). The contractual rates of loans maturing in 2020 and 2021 are lower, averaging 2.74% and 2.59% respectively, signalling a greater payments shock in those years. In addition, the amounts to be refinanced in those years are about 25% of outstanding debt, a higher share than in 2018 and 2019 (chart).

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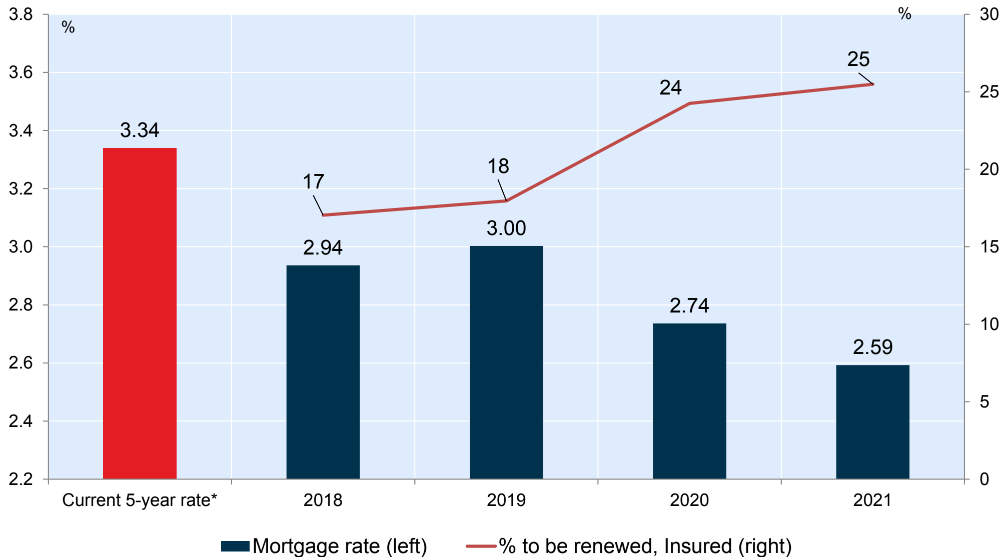
[1] At year end 2017, Canadian mortgage debt outstanding amounted to $1.397 trillion. According to OSFI data on Canadian banks accounting for more than 80% of the market, 47% of loans are insured and 53% uninsured. The mortgage-backed securities market suggests that 80% of insured loans are fixed-rate and the market in covered bonds of Canadian banks indicates a similar proportion of 77% for uninsured loans. Applying these percentages to the Statistics Canada aggregate, we obtain an estimate of $530 billion for insured fixed-rate mortgage loans, $558 billion for uninsured fixed-rate mortgage loans and $310 billion for variable-rate mortgage loans. As for non-mortgage debt, Bank of Canada data on banks indicates that 59% of it consists of lines of credit (including Helocs). Applying this percentage to total non-mortgage debt, we obtain a total of $432 billion for lines of credit.

Canada: Prospective interest-payment shock for insured mortgages
Current 5-year mortgage rate, contractual rate of existing mortgages by year of renewal, % to be renewed



* Available banks, blended for insured and uninsured
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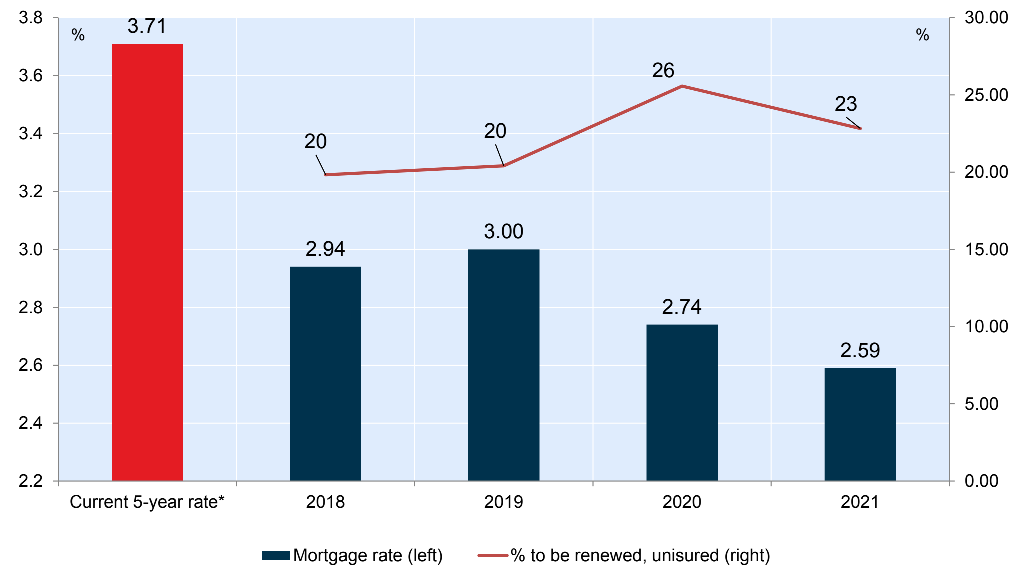
Canada: Prospective interest-payment shock for uninsured mortgages
Current 5-year mortgage rate, contractual rate of existing mortgages by year of renewal, % to be renewed



*Available banks
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Since data on contractual rate for loans renewable by year are not available for uninsured mortgages, we assume the same profile as for insured loans. However, the spread in market rates between insured and uninsured loans has recently widened significantly. The current market rate of 3.71% for the latter is well above the 2.94% average contractual rate for loans to be renewed this year (chart). Data on the covered bonds of Canadian banks can shed light on the amounts to be refinanced for uninsured loans. A similarity with the insured-loans profile is that the proportion of outstanding debt up for renewal in 2020 and 2021 is higher than in the two prior years.

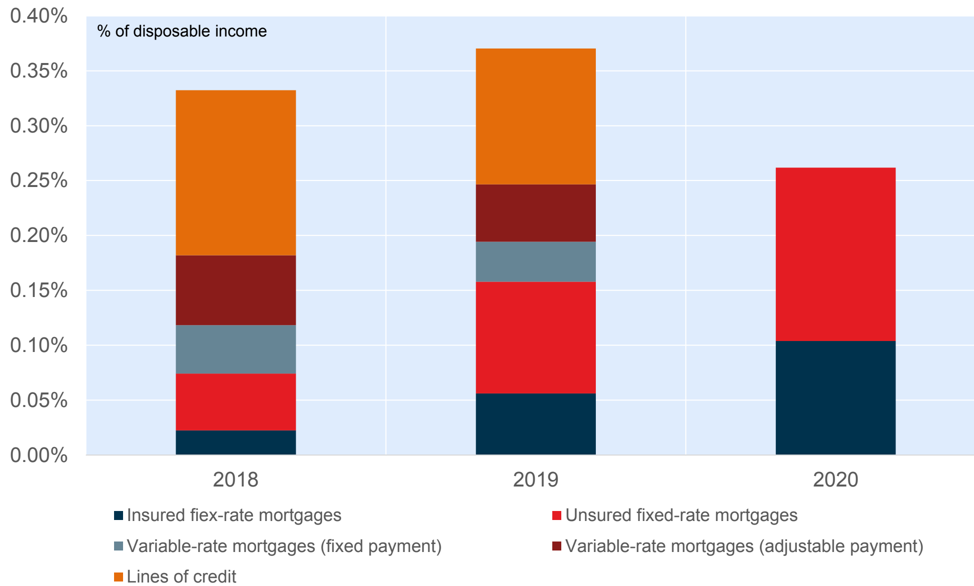
"About 20% of mortgage debt is coming up for renewal in both 2018 and 2019"

What to expect?

From these data we can estimate the increase in interest payments that Canadian households will face in the coming years. Our interest-rate scenario out to the forecast horizon assumes a gradual approach by the Bank of Canada — two more rate hikes this year, two next year. For the yield of 5-year Canada bonds we assume 2.35% at the end of this year and 2.78% at the end of next year. In 2020, following that period of interest-rate normalization, we assume constant rates. For the 5-year mortgage rate we assume a constant spread to 5-year Canadas out to the forecast horizon. We assume that all borrowers with a fixed-rate mortgage will renew at the 5-year rate — a conservative assumption, since households could opt for shorter maturities or a variable rate to lessen the increase of their interest bill. By our calculation, the increase in the aggregate interest payment will amount to 0.33% of total household disposable income in 2018 and 0.37% in 2019 (chart).

Canada: Prospective increase of interest payable

Increase in interest payable as % of disposable income



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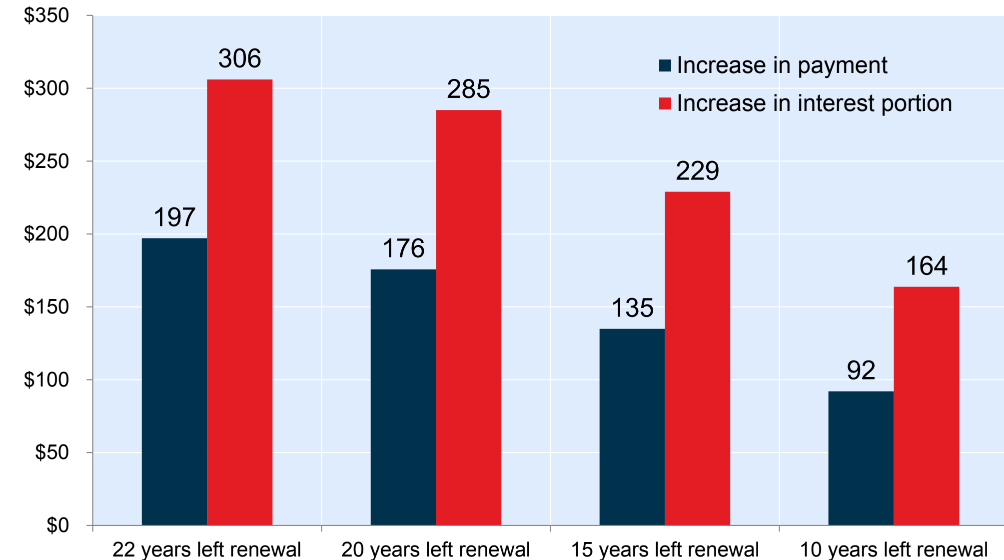
Canada: Interest increase ≠ payment increase

Simulated effect of increase of fixed rate to 4% from 3% at renewal of an initial $400,000 mortgage (25-year amortization period)



NBF Economics and Strategy (data from Statistics Canada)

However, a rise of the interest bill at renewal does not mean an equivalent rise of payments. The increase in the payments is always less than the increase in the interest bill. Our simulation indicates an increase in the payment amounting to about 60% of the increase in the interest bill (chart) given the average maturity.

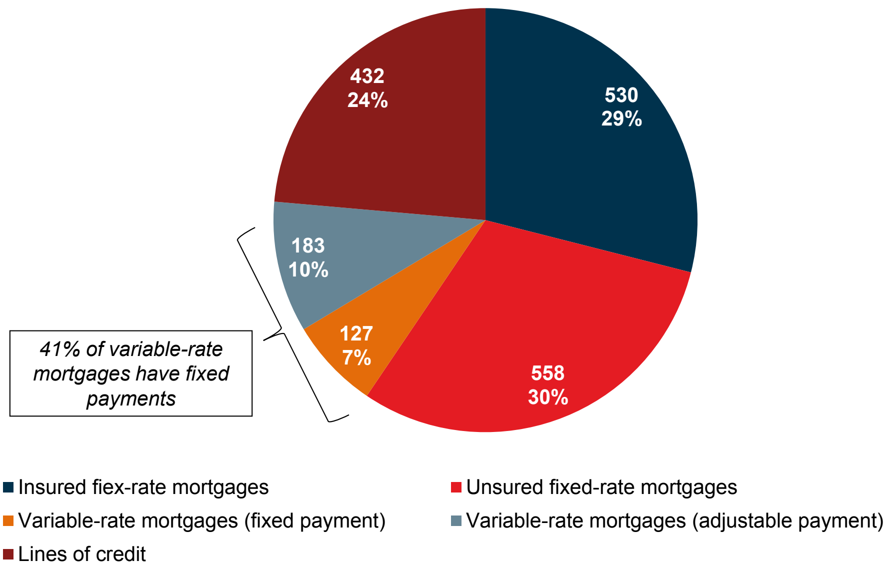
"However, a rise of the interest bill does not mean an equivalent rise of payments."

There is another factor specific to the Canadian mortgage market that reduces the effect of a rise in the aggregate household interest bill on the aggregate household payment. It turns out that no less than 41% of variable-rate mortgage debt, amounting to about 7% of all household debt exposed to interest-rate fluctuations (chart), comes with fixed payments.[2]

In other words, when the interest rate rises, the total mortgage payment stays the same and the capital-repayment portion decreases. Thus with such loans, as for fixed-rate mortgages, a rise of interest rates may be felt only gradually, as the loan matures. However, the hit may be even smaller than might be thought. To avoid having a client fall behind in his or her amortization schedule or, worse, fall into negative amortization in the event of overly steep rate rises, lenders offering this type of loan require or encourage borrowers to accept a monthly payment based on a hypothetical higher interest rate. If interest rates have been low for a long time, as is now the case, many households may be ahead of their amortization schedule and might have the option of reducing the hit from rate rises by lengthening their amortization period back to the original schedule.

[2] Percentage estimated from the mortgage-backed securities market.

Breakdown of household debt exposed to interest-payment shock (2)
Year end 2017, $ billion



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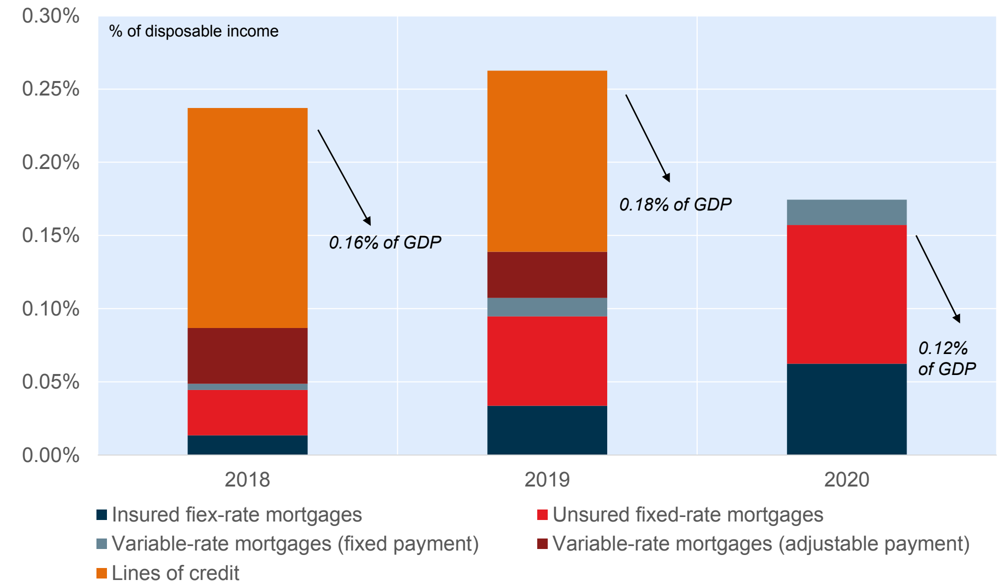
Canada: Prospective payment shock
Increase in payment as % of disposable income



NBF Economics and Strategy (Statistics Canada)

With these two factors taken into account, we calculate that the payment shock will amount to only 0.24% of disposable income in 2018 and 0.26% in 2019 (chart) — 30% less than the interest-bill hit set out above. That's a slight touch on the brakes, not the drastic slowdown of Canadian consumer spending mooted by the current buzz. The effect would be at most 0.2% of GDP[3].

"About 40% of variable-rate mortgages have payments that are fixed over the term."

Conclusion

Some pundits have been circulating inaccurate information recently. One is the affirmation that almost half of Canadian mortgages have been or will be up for renewal this year, suggesting an imminent payments shock from the rise of interest rates. This is false: that proportion estimated by the Bank of Canada last year is actually the proportion of mortgages subject to interest-rate rises from August 2017 to July 2018, thus including all variable-rate mortgages. Since the great majority of mortgage borrowers opt for 5-year terms, whether fixed-rate or variable-rate, it's hard to imagine much more than 20% of mortgage debt coming up for renewal each year, and that is what our sources show.

In our interest-rate scenario and our simulations, the rise of the aggregate interest bill for households exposed to rate increases amounts to 0.33% of disposable income in 2018 and 0.37% next year. However, a rise of the interest bill does not mean an equivalent rise of payments. First, the increase in the payment at the time of renewal is about 60% of the increase in the interest bill. Moreover, about 40% of variable-rate mortgages have payments that are fixed over the term (mostly five years), again suggesting a gradualizing effect on the rise in payments. With these two considerations taken into account, we calculate that the payment shock would amount to only 0.24% of aggregate disposable income in 2018 and 0.26% in 2019, or 30% less than the increase of the interest bill. Considering that real disposable income has grown an average 2.5% annually over the last 10 years, that's a slight touch on the brakes, not the drastic slowdown of Canadian consumer spending mooted by the current buzz. The effect on GDP would be at most 0.2%.

[3] We used « at most » since we assume no change in behavior from mortgage holders at renewal (term or amortization).

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Economics and Strategy

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