Economics

IN FOCUS

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Let's get real

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As far back as Irving Fisher in the 1920s, economists recognized that there was an important distinction between "nominal interest rates", the rates that we see discussed every day, and "real interest rates" which take inflation into account. The idea is simple enough; if inflation is higher, the actual purchasing power you get a year from now on funds deposited over the period will be lower. That real interest rate, the nominal rate minus inflation, is what will matter in your decision over whether to save your money or spend it today.

But in the real world of real interest rates, economists get pretty sloppy about how to measure them, and from which economic participant's perspective. Moreover, there are ways in which nominal interest rates count. As inflation decelerates in the quarters ahead, getting real about real interest rates will be important as we assess where the Bank of Canada needs to head. For the most part, our analysis suggests that interest rates currently represent a greater drag on growth than would be indicated using some of the quick-and-dirty approaches to converting them into a real interest rate.

The long and short of it

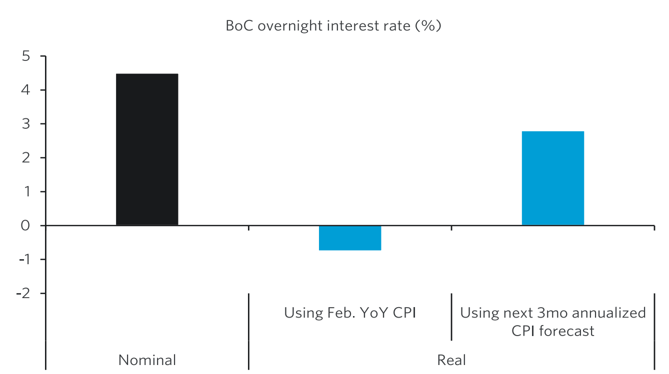
Much of the attention is paid to the overnight rate of interest, the one directly in the hands of the Bank of Canada. It has some relevance to market participants other than the banks that actually borrow and lend in that one-day market, since it tends to set the range for prime rates and for variable rate mortgages to a significant degree.

But it's often misquoted in real terms. Observers get lazy and compare today's overnight rate to the year-over-year CPI, which is backward looking, or to the three-month expected rate for year-on-year inflation, which will still be mostly about price gains that look place over the prior three quarters. Short is sweet when looking at the impact of inflation on a short-term rate. While it would be silly to compare the overnight rate to a one-day inflation rate, which would be immeasurable, a more reasonable approach would be to deduct a short-term expected inflation rate, say for three months.

That presents quite a different picture of where we are right now (Chart 1). Today's 4.5% nominal overnight rate would be a real rate of -0.75% using inflation over the most recent 12-month CPI data (to February). Looking at the next-three months (covering March-May), using CIBC's forecasts, the year-on-year inflation rate is still likely to average 3.7%, implying a real rate of 0.8%. But over that period, we see (seasonally adjusted) inflation tracking at only 1.7%, meaning that real short rates are actually quite high, at 2.8%. That's a substantial benefit to saving over current spending, even if we take half of that gain off due to taxes. If that 1.7% annualized inflation rate looks low, note that the comparable rate in the 3-months to February was already tracking at only 1.6%.

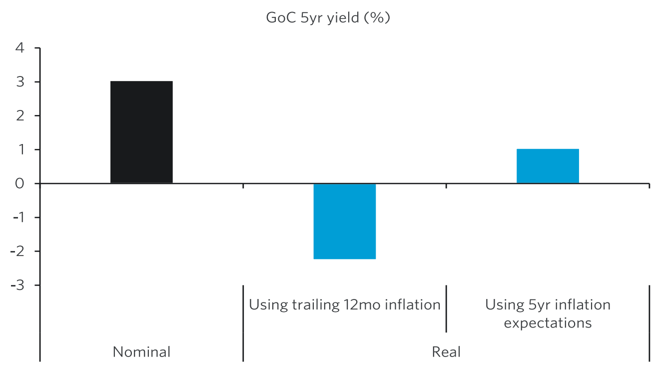
Longer term yields need to be matched up against expected inflation over a similar horizon. In Canada, five year rates have

Chart 1: Real BoC overnight rate is positive using forward inflation rate



Source: Bloomberg, CIBC

Chart 2: Five year real rate is positive using expected inflation



Source: Bloomberg, CIBC

particular relevance due to their link to a common term for mortgages. Five year expectations for inflation have hovered near 2% in recent weeks using the pace that equalizes returns on nominal and real return (inflation linked) bonds of that term. The Canadian Survey of Consumer Expectations last put that rate at 2.9%, but that's actually cooler than it was prior to the pandemic, when inflation had been averaging around 2%.

If we apply that 2% rate for expected inflation, it would mean that the real rate on a five year bond is now roughly 1%, as opposed to a negative 2% real rate one would calculate using the trailing 12-month inflation rate (Chart 2). A 1% real rate doesn't look particularly onerous for those familiar with textbook economics, where a real rate in that range would typically have been seen as close to neutral, or even by deeper historical standards, stimulative. But here for other reasons, that's also not the whole story. Because for different borrowers or investors, the right way to think about the combined impact of interest rates and inflation also differs.

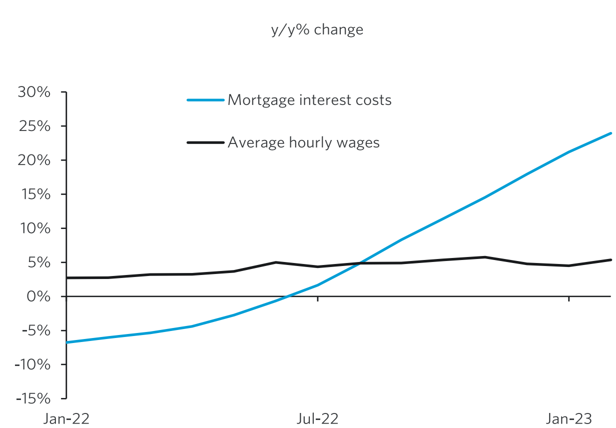
A matter of perspective

Let's go back to that mortgage borrower, for a moment. It's true that a given nominal interest payment made a year from now will entail less of a sacrifice in spending one year hence if inflation is higher. So in that sense, real interest rates matter. But why would the typical Canadian almost completely ignore that sort of thinking?

Because their mortgage banker would, that's why. Inflation that has house prices keeping pace with the CPI would be helpful to someone renewing a mortgage by raising home equity. But to qualify for a mortgage, the borrower also has to show that current income can support the current mortgage payment. That calculation will be entirely based on the nominal mortgage rate and current income, with expected inflation playing no role. Future inflation in their wages might help them afford payments down the road, but only if wage inflation outstrips inflation in their non-mortgage expenses, i.e. only if real wages were rising. And even then, that's not part of the calculation to get a mortgage approved.

For that reason, some economists are likely giving too much weight to real interest rates in assessing the drag on Canada's economy from the tightening we've seen from the central bank. The squeeze on indebted households, some of which have seen monthly payments rise by about one-third as their mortgages renewed at a higher rate, wasn't materially lessened by a one or two year increase of, say, 5% in their wage rate, not if other items in their consumption basket were similarly escalating. Compare, for example, how average hourly earnings in Canada have stacked up against inflation in the mortgage interest component of the CPI (Chart 3).

Chart 3: Mortgage interest costs rising much faster than hourly wages



Source: StatCan, CIBC

For a corporate borrower, there's also more to thinking about the cost of debt capital than just looking at the real interest rate, even if calculated correctly by subtracting expected inflation over the terms of the debt. In this case, it matters what's driving that inflation.

Suppose, for example, that we had a run of high inflation tied to climbing energy prices. That won't be really lessening the burden of a higher nominal interest rate if the borrower isn't an energy producer. Indeed, if the borrower is in an energy-intensive sector, such inflation could be depleting the income needed to cover the loan. So here too, the role that inflation plays in reducing the burden of a given nominal interest rate, and therefore impacting the way investment spending responds to interest rates, is a bit more complex than it looks on the surface.

It's still true that in the savings versus consumption decision, real interest rates matter: how much extra consumption you get by setting money aside will depend on both the interest income received in nominal terms, and how inflation has changed prices over the period of savings. Even there, however, taxes on interest income put a wedge into that calculation. On an after-tax basis, a saver who earns 4% interest in a 2% inflation world reaps more future consumption than a saver earning 6% in a 4% inflation world. At a 50% marginal tax rate, the former would be left with a 0% rise in real after tax spending power, while the latter would actually have 1% less than they started with.

What this means for the Bank of Canada

All told, we've found that monetary policy is actually tighter than one might think when solely looking at real interest rates. That's particularly true if one is sloppy enough to include inflation that's in the rear view mirror in converting from nominal to real. Real rates could look high to corporate borrowers that have faith that the Bank of Canada will get inflation back to an average of 2% over the life of their term loan or bond, and therefore limit their ability to use higher prices to drive revenue growth and pay interest. Canadians with mortgages that are renewing are unlikely to see much comfort from the fact that they've had some wage gains due to inflation, given that their other living costs have also escalated.

But at the same time, our analysis makes upcoming Bank of Canada decisions less tied to any quick-and-dirty calculation of where real rates are headed if, as we expect, the 12-month rate of inflation continues to decelerate in the months ahead. While we expect that headline CPI figure to tumble from 5.3% in February to only 2.3% by June, that won't mechanically change real rates of interest, since forward inflation expectations are already fairly well-grounded, judging by financial market yields on real and nominal bonds as well as consensus forecasts for the CPI.

The fact that the squeeze on household debtors is larger than real rates might imply does, however, suggest that we'll need a material easing in monetary policy once enough slack has opened up to tame future inflation, lest a stall in growth morph into a more protracted and deeper recession than the Bank of Canada intends. That's consistent with our view that after a soft patch, getting growth back to Canada's non-inflationary trend is likely to see the overnight rate target cut to 3.0% by the end of 2024.

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