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E-BRIEF

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The New "Normal" for Interest Rates in Canada: The Implications of Long-Term Shifts in Global Saving and Investment

by
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- Over the next few years, the Bank of Canada, like other central banks in developed countries, will need to raise short-term interest rates to more normal levels as the global economy strengthens.
- This E-Brief argues that the normal or "neutral" rate is likely lower than its historical average, and likely will remain at relatively lower levels over the next decade.
- Hence, when the Bank of Canada starts gradually raising rates, it should raise them to levels below the historical average, according to our baseline scenario.

By any standard, interest rates in Canada and most other developed countries are very low. Inevitably, interest rates will go up, and eventually return to more normal levels. In practice, however, there is disagreement about when, and by how much, rates should rise.

This E-Brief provides guidance on where the Bank of Canada's target interest rate should stand once the Canadian economy is back to normal, and growing in line with its productive potential. Our main message is that, over a 3- to 10-year horizon, the normal or "neutral" rate for Canada is

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likely to be lower than the historical average,[1] due to fundamental shifts in domestic and world determinants of desired saving and desired investment.[2]

The Equilibrium Rate of Interest: The Theory

Many theories seek to explain how interest rates are determined, and the so-called loanable funds theory is the most prevalent.[3] In its simplest form, this theory suggests that the real – that is, adjusted for inflation – interest rate is determined in the market for investment and savings. In this market, the real interest rate adjusts to equilibrate desired savings (by those who want to supply funds) with desired investment (by those who want to invest funds).

From a global perspective, saving and investment decisions are made by three sectors: households, firms, and governments. Shifts in the demand or supply of savings from any of these sectors can result in an overall shift in related demand or supply curves, causing a shift in the equilibrium rate of interest (Figure 1). For instance, an increase in desired savings by households leads to an outward shift in the desired savings curve, and lowers the equilibrium rate of interest.

Interest rates are affected by central banks, which notably control very short-term interest rates.[4] When the economy is operating near its potential, the Bank of Canada usually aims to set short-term rates that are consistent with the supply of funds being equal to the demand for funds at full employment. In so doing, the Bank seeks to ensure that the stance of monetary policy is neither inflationary nor disinflationary; in others words, that the target rate is policy neutral.

A Look at Recent History: The Secular Decline in World Real Interest Rates

Interest rates are subject to very long cycles. Since the early 1980s, real rates of interest have steadily declined in

1 The Bank of Canada's target rate averaged about 3.8 per cent from the end of 1995, when the current 2 percent inflation targeting framework was implemented, to the start of the recession in Canada in November 2008. Many estimates of the neutral rate are higher. For instance, in its 2010 Economic Survey of Canada, the Organisation for Economic Co-operation and Development assumes a nominal neutral rate of 4.5 per cent (OECD 2010). The neutral rate is not directly observable and difficult to estimate; its estimation is dependent on a number of assumptions about the basic structure of the Canadian economy (Laidler 2011).

2 There may be deviations between the world neutral real rate and the neutral real rate as it applies to the Canadian context. We believe, however, that any deviation is small and not very persistent over time. Hence, our view of the neutral rate for Canada relies heavily on our view for the world neutral real rate.

3 In neoclassical growth theories, for instance, equilibrium rates of interest are a function of economic fundamentals underlying trend growth rate in output such as productivity, population growth and household saving preferences over time. Using these fundamentals as an analytical framework would likely lead to similar conclusions to those of this paper.

4 The Bank of Canada sets a target for the overnight rate which, through the transmission mechanism of monetary policy, may affect other longer-term interest rates in the economy. There is not a fixed relationship between the Bank of Canada's target and other interest rates in the economy. For instance, when term premiums are low, a higher target overnight rate is needed for a given level of other interest rates in the economy, everything else being constant. For the purpose of this paper, we assume a constant relationship between the overnight rate and longer term rates. We are also assuming that inflation expectations will remain at about 2 percent, in line with an absence of change in Canada's inflation target. A change in inflation expectations over time would affect the link between the target rate and longer-term interest rates.

Figure 1: The Market for Investment and Savings

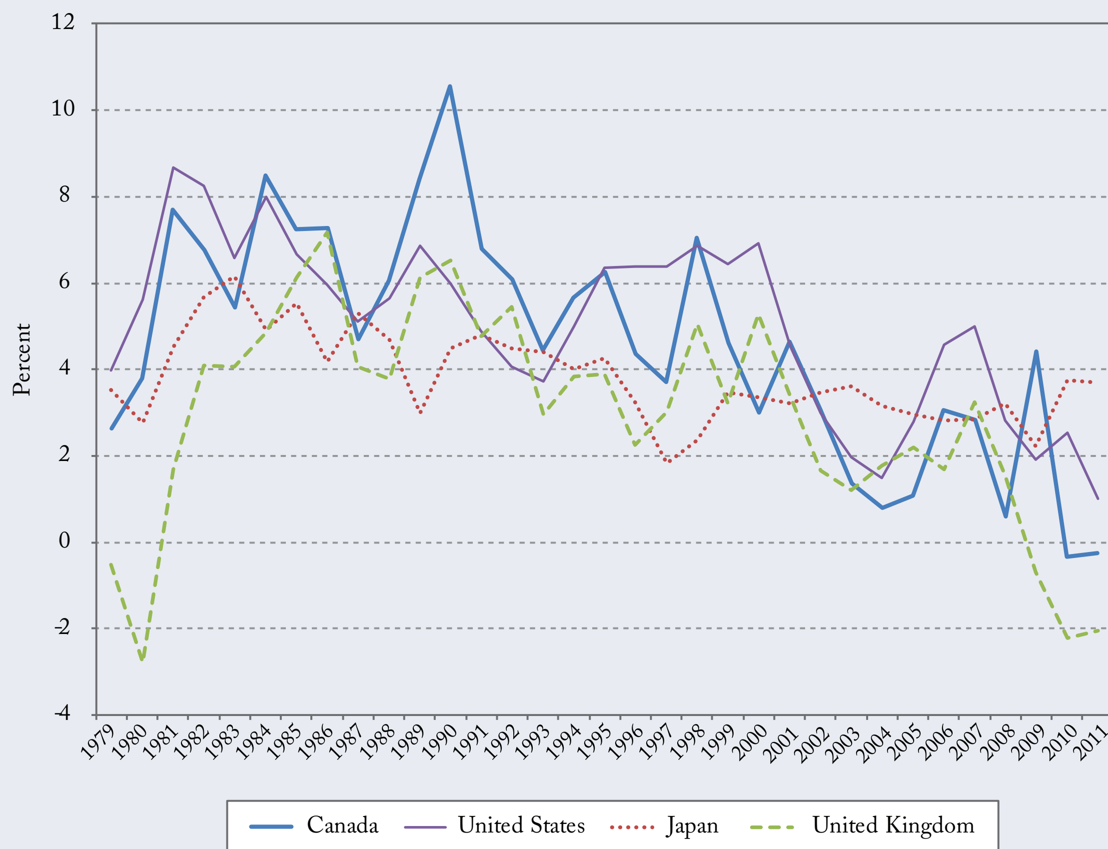
Source: Authors.

developed countries, and have turned negative, in some, since the onset of the 2008-2009 recession (Figure 2). Many factors related to desired investment and savings have been shown to explain this long-term fall in rates: notably, the slower growth in the labour force has negatively affected desired investment, and changes in the age structure, such as the fall in the ratio of the young to the working-age population, have increased desired saving (Desroches et al.). Meanwhile, the decline in interest rates is persistent across most countries, implying that rates are determined to a large extent on the world market for investment and savings, due to the increasingly integrated nature of world capital markets.

Long-Term Shifts in Global Savings and Investment: Implications for the Neutral Rate

Long-term trends related to global desired savings and investment suggest that the world equilibrium rate of interest will remain low in the next three to 10 years. Most notably, this is because desired saving, both domestically and internationally, is expected to remain high. Saving decisions for households tend to depend on individual's life cycle: people tend to spend more than they earn in earlier years, and tend to have high saving rates as they approach retirement (Modigliani 1986). In Canada, as in other developed countries, a large cohort of the babyboomer generation is edging towards retirement and, in the meantime, is increasing its saving level.

Figure 2: Historical Real Rates of Interest, Selected Countries

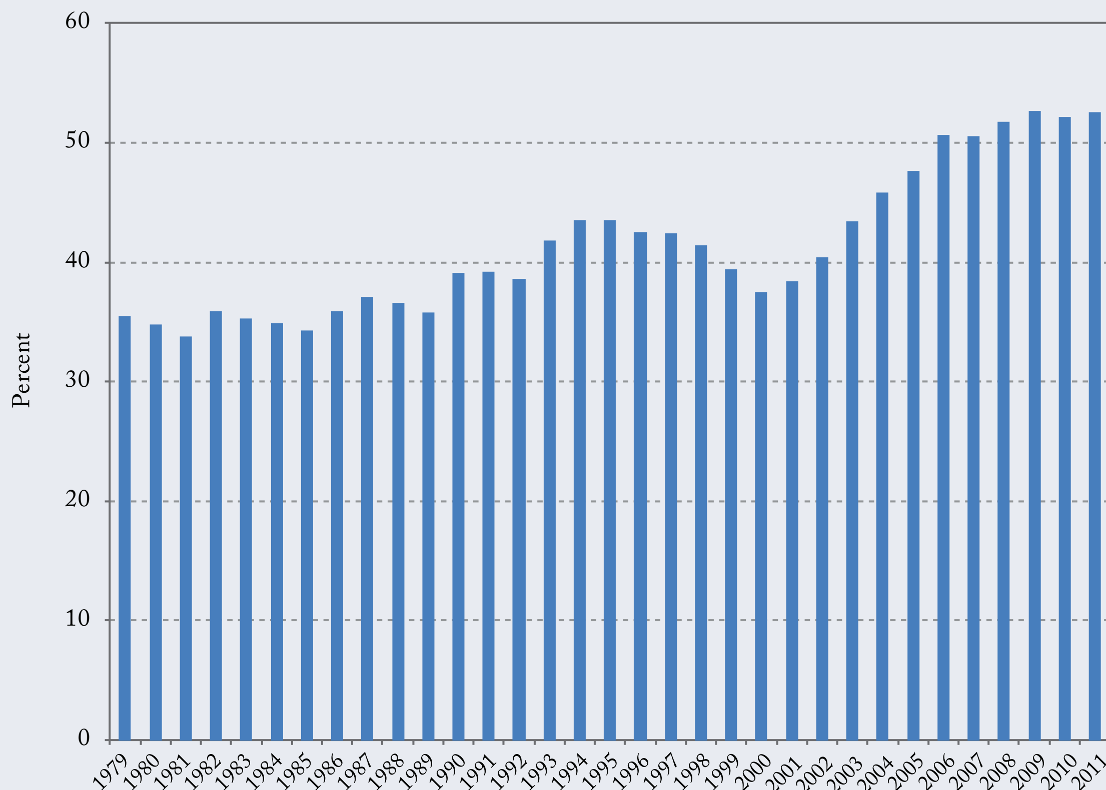


Sources: International Monetary Fund, International Financial Statistics and World Bank data. Real interest rate is the lending interest rate (i.e., the bank rate that usually meets the short- and medium-term financing needs of the private sector) adjusted for inflation as measured by the GDP deflator.

Once the majority of this cohort enters retirement, they will start drawing down on their saving, but given the fact that the youngest babyboomers are still under 50 years of age and that the retirement age is bound to increase, the bulk of this effect will not occur during our 3- to 10-year horizon.

Possibly the most important long-term shift is the rise of China and the concomitant rise in its level of savings by households (Figure 3). Due largely to the lack of a western-style social safety net, Chinese households have a high level of precautionary savings.[5] While a social welfare system has taken shape to some extent, the coverage remains limited and fragmented. This fact is unlikely to change in the near future, only perhaps in the longer term (Ma and Yi, 2010). Further, the continued growth of the Chinese middle class, which typically saves a relatively high proportion of its income, is likely to contribute to keeping the country's household saving rate at

5 The one-child policy, which has reduced the number of children that could potentially support their parents in retirement, may have also contributed to China's high saving rate.



Source: World Bank national accounts data.

elevated levels. Partly as a result of high saving rates, China, like many developing nations, has been persistently a net lender on international capital markets, a fact that led the Chairman of the US Federal Reserve to affirm that the world economy has been subject to a saving glut for many years (Bernanke 2005).

The "Great" Recession of 2008-2009 has also affected desired savings. As with similar past events, the fallout from the Great Recession is characterised by deleveraging, whereby households, businesses and governments are trying to reduce their debt levels. Consumers are looking to save more to restore the health of their balance sheets. Similarly, governments in most developed countries are looking to increase their own savings, often from negative levels, given their difficult fiscal positions. And businesses have allowed their holdings of cash to rise, reflecting at least partly their learned need for precautionary holdings of cash or other liquid assets in the wake of recent recessions (Poschmann 2013).

Finally, there is the investment side of the equation: the level of investment on the part of businesses has been low in many developed countries for over a decade. For example, non-housing investment has been low in the US since the end of the high tech expansion of the 1990s (see Figure 4). It picked up during the expansion of 2003-2006, but the peak was well below those of the 1980s and '90s. This may reflect a difficulty on the part of firms in finding new innovations that require investment of the size seen in the '80s and '90s associated with the diffusion of information technology.

Figure 4: United States' Non-Residential Private Investment as a Percentage of GDP

Source: United States' Bureau of Economic Analysis.

While new investment opportunities may be around the corner, they are not yet apparent. And the secular decline in investment demand over the last three decades or so is unlikely to be significantly reversed over the next several years given the very long cycles such demand is subject to. A reasonable assumption is therefore that the intensity of business investment in the developed world will likely remain below its pre-financial crisis peaks for the next three to 10 years. Continued low desired investment will therefore exacerbate the effects of high desired savings on interest rates.

Conclusion

Over the next two to five years, central banks in most developed countries will likely need to raise rates as economic conditions improve; the Bank of Canada expects the Canadian economy to return to full capacity by the second half of 2015 (Bank of Canada 2013). There is disagreement about when, and the extent to which, interest rates will need to rise as the economy returns to its potential. As we have argued in this E-Brief, the normal or "neutral" rate, in Canada and elsewhere, is likely lower than that suggested by historical averages, due to fundamental shifts in the determinants of desired saving and desired investment. The Bank of Canada will therefore likely only need to take small, incremental steps on its way to normalcy.

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