Secular decline in global interest rates

It is a stylised fact that real interest rates have been declining globally since the 1980s (figure 1). Meanwhile, growth in both prices and demand has been moderate over this period, and more recently notably weak. When taken together, these two facts suggest that the real natural rate of interest has also fallen.

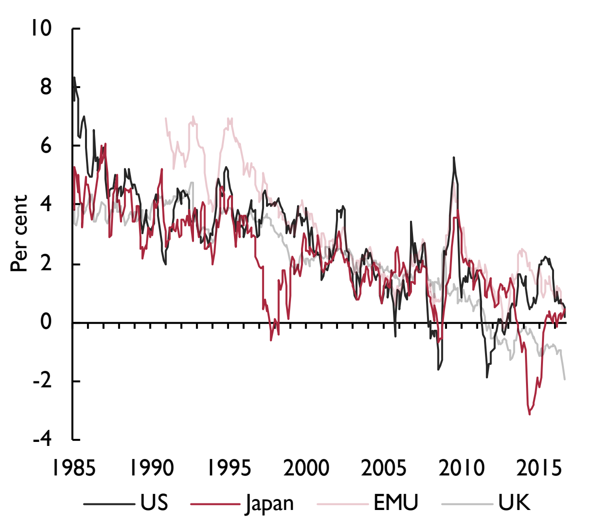
Economic theory tells us that the global neutral rate depends on saving and investment preferences and expectations of global trend growth. Therefore, it would seem that either saving is running ahead of investment demand, or that there has been a persistent downward movement in the expectation of future global output. Rachel and Smith (2015) find that in recent years, following the financial crisis, a more pessimistic view of future global growth rates has contributed to the decline in interest rates. However global growth was fairly steady in the pre-crisis decades and they find that little of the pre-crisis trend in interest rates can be explained by this channel. We therefore focus on the interaction of saving and investment.

There are a number of candidate explanations for this phenomenon. Rachel and Smith (2015) effectively characterise these under four headings; demographic change, rising inequality, an emerging markets savings glut and structural shifts since the global financial crisis of 2008. To these we also add a brief discussion of the role of debt dynamics, as highlighted by Borio and Disyatat (2014). Demographic changes can lead to lower rates as the middle-aged have a higher propensity to save. The greater the proportion of the total populous that is middle-aged, the larger the quantity of saving that will occur. Bean *et al.* (2015) note that falling interest rates have coincided with an increase in the high-saving middle-aged population's share of total population, relative to the share of the population that is aged 65 and over. If this is a significant driver of falling interest rates then we could reasonably expect real interest rates to rise somewhat as the high-saving middle aged group transition into retirement, while less numerous future generations enter the labour force.

The arguments surrounding inequality work along similar lines. Since the rich have a higher marginal propensity to save, it is intuitive that rising inequality within countries will result in higher saving rates. As documented by Atkinson *et al.* (2011), the wealth and incomes of the richest segment of the population have been rising much faster than that of the rest of the population over the past several decades.

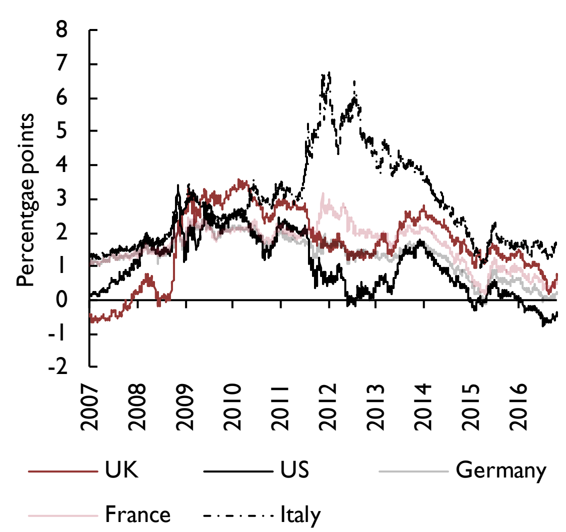
Bean *et al.* (2015) find that China's partial integration into global financial markets and the associated capital outflows have put downward pressure on interest rates. Rachel and Smith (2015) suggest that this effect has been exacerbated by a significant increase in foreign exchange reserves in many emerging markets as a precautionary measure following the Asian financial crisis in 1998.

Figure 1. 10-year real government bond yields, monthly frequency



Source: Thomson Reuters Datastream.

Figure 2. 10-year term premia in nominal sovereign bond yields



Source: NIESR estimates.

Secular decline in global interest rates (continued)

Similarly a structural change may also have occurred in advanced economies following the global financial crisis of 2008. Increased risk aversion and/or elevated uncertainty may have resulted in a reduced propensity to invest and thus, for a given level of saving, lowered equilibrium interest rates. Relatedly, there may have been a shift in investor preferences towards safe bonds and away from riskier assets, which may plausibly have reinforced the downward pressure on safe interest rates.

Lastly, the increased levels of indebtedness in advanced economies may be both a consequence and a cause of low interest rates. When debt levels are high, an income shock may cause households, private sector agents, and even governments to reassess their debt position and begin to pay down their debt to a more sustainable level. When done at a macroeconomic level, this can weigh on demand (Vlieghe, 2015). To stimulate demand, the natural reaction of a central bank is to lower rates. However, if households are determined to delever then this deleveraging process will continue regardless and will continue to sap demand from the economy, leading to lower rates (see Koo, 2011, for an explanation of this phenomenon).

In practice, the true answer is likely to be a combination of these factors, with some temporary, some cyclical and some permanent structural shifts. However, understanding why the natural rate appears to have fallen to such low levels is an important research agenda. For instance, one cause for concern should low interest rates persist is that, in the event of an adverse shock to the economy, central banks are more likely to be constrained by the lower bound on nominal interest rates. Central banks instead have to resort to unconventional monetary policy instruments, such as quantitative easing and forward guidance, more often. Such instruments are not perfect substitutes for conventional policy, bringing with them uncertain transmission mechanisms and side-effects for financial markets and institutions. What is more, estimates from Lloyd and Meaning (2016) and Meaning (2016) suggest that the scope for these measures is also approaching its effective lower bound in a number of economies as interest rate expectations and sovereign bond premia appear to be close to their limits (figure 2). Were this to be the case, fiscal policy may be required to play a greater role in offsetting any future adverse economic shocks, while there is the risk that a recession may be longer and deeper in an environment of low trend interest rates.

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