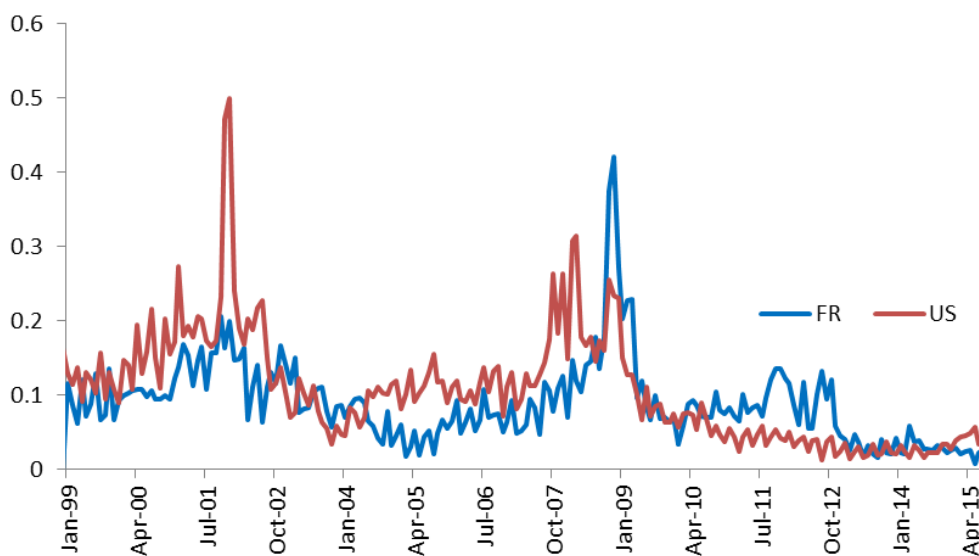


Interest rate uncertainty harms the economy

By [Klodiana Istrefi](#) and [Sarah Mouabbi](#)

Uncertainty about the future path of interest rates is harmful to the economy. A new measure of interest rate uncertainty is constructed for G7 countries, Spain and Sweden, during 1993-2015. Interest rate uncertainty, of the size observed during the recent crisis, decreases industrial production by up to 3.8% and CPI inflation by up to 1 percentage point (pp) while increasing unemployment by up to 1.2 pp.

Figure 1: Interest rate uncertainty fluctuates substantially over time



Note: Short-term interest rate uncertainty for France and the United States (1999-2015) based on [Istrefi and Mouabbi \(forthcoming\)](#). The French rate is the 3-month interbank rate. The United States' short rate is the 3-month Treasury bill rate.

Niels Bohr, a Nobel Prize winner in Physics once said, "It is exceedingly difficult to make predictions, particularly about the future". Undoubtedly, forecasting the economy is difficult at the best of times and during times of greater uncertainty this exercise can be even more challenging. For instance, we face such uncertainty when wondering where the economy is heading, who will win elections, and so on. Such unknowns about the future affect today's decisions to consume, to invest, to hire or fire workers.

Why interest rates?

Interest rates matter a great deal to savers, to debtors and to the economy as a whole. More particularly, interest rates play a key role in the transmission of monetary policy decisions on the economy. In the past decade, nominal and real interest rates have been remarkably low. Major central banks decreased their policy rates to unprecedented low levels in response to the 2008 financial crisis and then kept them low for a long time. As economies are recovering, markets are speculating on the timing and size of future interest rate increases. For instance, in the United States, speculation about

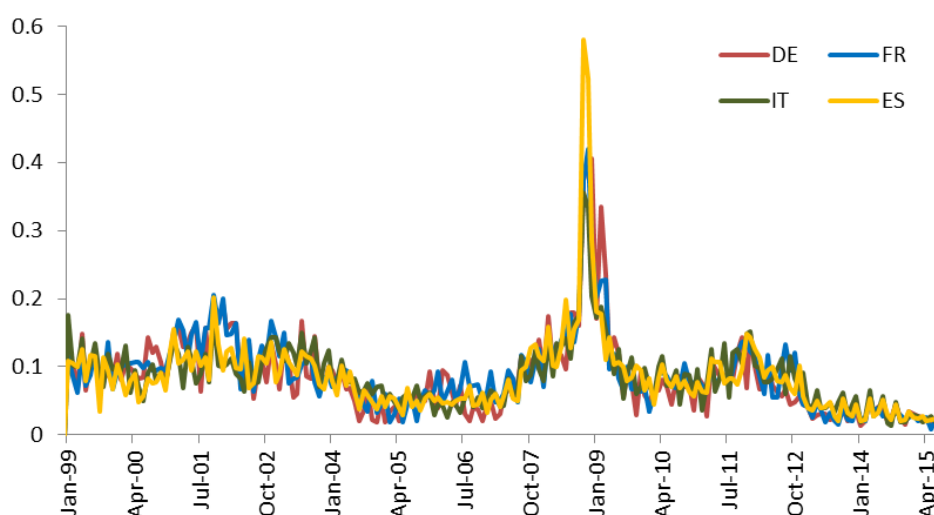
the normalisation of interest rates intensified as of late-2014, increasing interest rate uncertainty well before the Federal Reserve (Fed) actually raised its policy rate for the first time in December 2015. Since then, the Fed has carried out three further hikes, the latest being in June 2017. In the euro area, markets anticipate that policy rates will remain at their current level for at least several quarters, while in the United Kingdom, speculation about the timing of the first policy rate hike is on the rise.

How does interest rate uncertainty behave?

[Istrefi and Mouabbi \(forthcoming\)](#) construct a new measure that summarises uncertainty about future interest rates of professional forecasters in public and private economic institutions in several countries. The uncertainty relates to the 3-month interest rate, forecasted 3 months ahead by professional forecasters in Consensus Economics' surveys. With these interest rate forecasts and their respective realised outcomes, we construct the interest-rate uncertainty measure as the sum of two components: (i) disagreement between forecasters and (ii) the time-varying variability of the average forecast errors. Professional forecasters have different views on the level of future economic variables, including interest rates. For example, even if their assessment of future interest rates is based on the same publicly available data, forecasters can interpret the data in different ways, leading to different predictions, and thus disagreement, which is captured in the first component. The second component captures how difficult it is, for all forecasters, to predict future interest rates.

Interest rate uncertainty fluctuates substantially over time (Figures 1 and 2). The United States displays particularly high levels of interest rate uncertainty around the post dot-com bubble and after the September 11 attacks, in the early 2000s. Spikes in uncertainty are also observed for all countries during the Great Recession of 2008. Interest rate uncertainty is at its lowest from end-2008 for the United States, and from mid-2013 for the euro area. This muted uncertainty reflects low levels of disagreement between forecasters about the future path of short-term interest rates as well as a low variability of forecast errors. Indeed, during these periods, nominal policy interest rates reached levels close to zero (and even modestly below in some cases), and central banks communicated forward guidance that policy rates would remain low for a long time.

Figure 2: After the Great Recession spike, interest rate uncertainty falls to its lowest level



Note: Short-term interest rate uncertainty measures for selected euro area countries during 1999-2015. The short-term rate refers to the 3-month interbank rate.

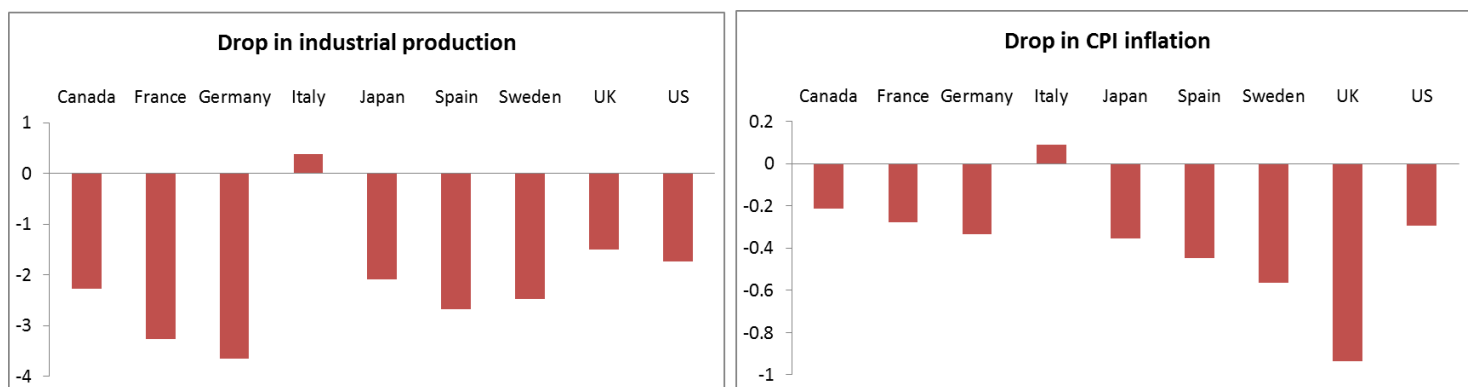
Interest rate uncertainty can be related to uncertainty about monetary policy as interest rates play a key role in the transmission of monetary policy decisions to the economy. Indeed, up to 2008, the United States' interest rate uncertainty co-moves with existing measures of monetary policy uncertainty. By contrast, post-2008, while interest rate uncertainty is at its lowest, monetary policy uncertainty remains elevated, reflecting uncertainty around unconventional policy measures and their unwinding.

Uncertainty about the future path of interest rates is harmful to the economy

Interest rate uncertainty has a negative impact on industrial production, prices and unemployment. Interestingly, this impact varies across countries (Figure 3). For instance, for fluctuations in interest rate uncertainty of the size observed during the recent crisis, the drop in industrial production varies from 0.4% to 3.8%. In response to this uncertainty, unemployment worsens with rates increasing by 0.15 to 1.2 percentage points. In addition, CPI inflation falls by up to 1 percentage point. Furthermore, the recovery of the economy is slow, taking about 3 to 5 years.

Why do some countries suffer more from interest rate uncertainty than others? This can relate to the different structures of the economies and to different institutional frameworks. For instance, the countries most affected are those with a large share of its economy involved in manufacturing (such as Germany and Sweden) because this sector's activity relies on long-term projects that are sensitive to interest rate changes. Countries with more rigid labour regulations (such as France and Spain) also tend to suffer more, as labour market rigidities make it difficult to reverse hiring choices if the economic climate turns out to be different from what was expected.

Figure 3: Interest rate uncertainty has recessionary and deflationary effects



Note: Figures represent the maximum drop (i.e. troughs) in industrial production and in CPI inflation in response to transitory fluctuations in interest rate uncertainty as estimated in [Istrefi and Mouabbi \(forthcoming\)](#) for the period 1993-2015.

Central banks to the rescue: care, communicate, contain

Central banks care about and continuously monitor the evolution of market expectations. They design operational frameworks, such as inflation targeting, that help structure their communication and avoid unnecessary interest rate uncertainty. They also revise language in reaction to the evolution of expectations. For example, during the Great Recession, many central banks across the world communicated forward guidance policies that helped reduce uncertainty about the future path of short-term interest rates.

However, the signal received by markets is not always what was intended. Despite forward guidance communication on keeping rates "low for long", the 2013 tapering episode in the United States is an example of premature expectations of interest rate hikes stirring markets. In response, the Fed

reaffirmed firmly that their forward guidance statement remained relevant, despite discussions on the pace of its asset purchases, thus containing interest rate uncertainty.