National Institute of Economic and Social Research

NIESR Quarterly Term Premium Tracker

UK short-term interest rate expectations retreat from highest level since January 2020

Tracker Number 3

December 2021

"Bond yields are higher than three months ago but have come off their peak. The level of UK inflation has convinced the market that rate hikes are coming, and so that short-run rate expectations have pushed bond yields higher in October. However, the Bank of England has delayed the first rate hike, which has calmed market fears about how rates might go and so the term premium has now declined."

Dr Corrado Macchiarelli
Manager for Global Macroeconomics Research

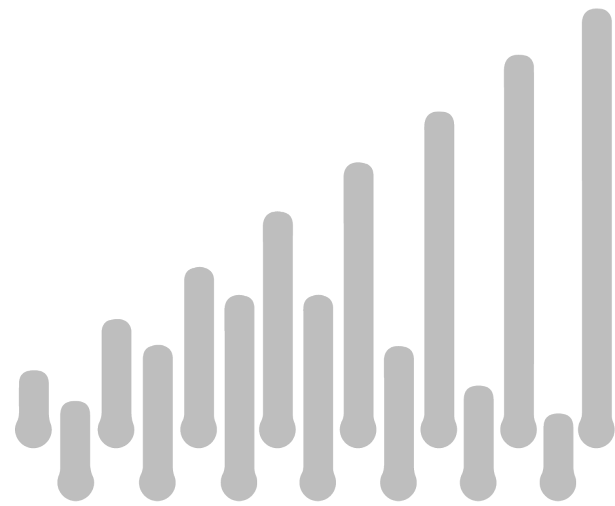
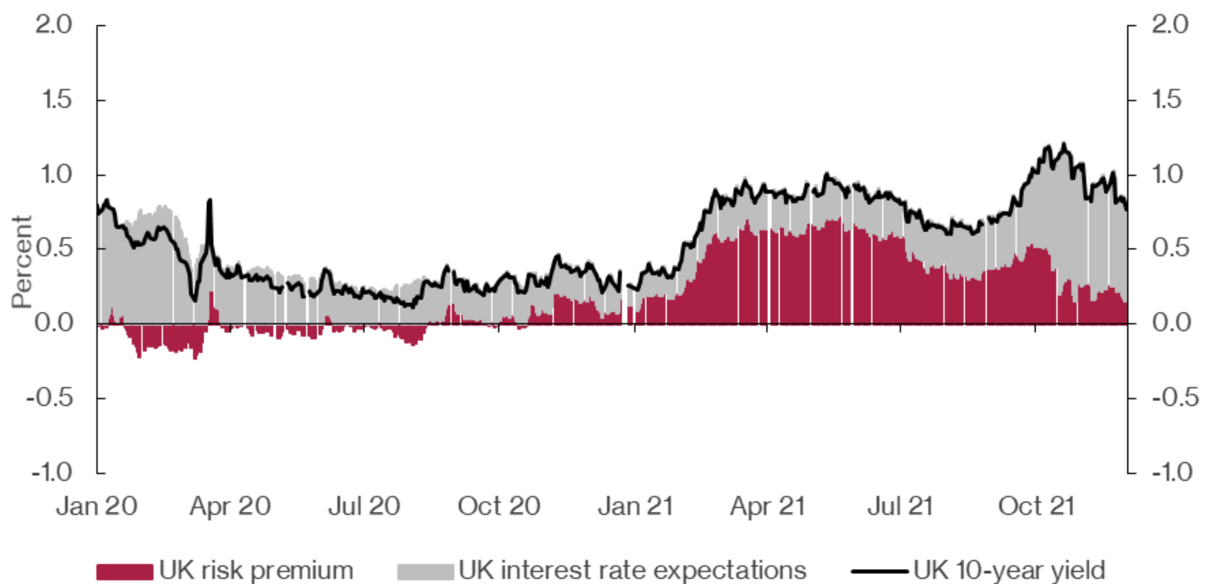


Figure 1 – UK 10-year government bond yield and decomposition (percent)



Source: Authors' calculations based on data by Bank of England

Main Points:

- We decompose long-term treasury yields into two components: expectations of the future path of short-term bond yields and a term premium. The term (or risk) premium is the compensation investors require for bearing the risk that short-term bond yields will not evolve as expected.
- The 10-year treasury yields peaked at 1.2 per cent on 21 October, the highest level since the start of the pandemic. This has been mainly driven by an increase in short-term interest rate expectations (figure 1). After the Bank contradicted market expectations by not hiking in November, the 10-year bond rate decreased to 0.8 per cent in December, largely on the back of a reduced term premium, remaining above the levels observed earlier in the year. The short-term interest rate expectations price-in the Bank rate going back to around its pre-pandemic 0.75 per cent level, and the reduction in the term premium suggests the market sees only a modest risk of it going higher than that.
- The adjustment in the UK risk premium is consistent with our latest GDP growth forecast: economic activity has continued to grow during the third quarter of this year but slower than expected, and is projected to increase by 1 per cent in the last quarter of 2021. The risk premium decreased from 0.54 per cent at the end of September to

0.15 per cent in December. Interest rate expectations, capturing markets' expectations of rates over the longer horizon, increased to 0.94 per cent in October, the highest raise since the start of the pandemic, but have subsequently declined to around 0.65 per cent.

- The UK headline inflation having increased significantly to 4.2 per cent in October 2021 and now expected to peak at around 5 per cent in the second quarter of 2022. If inflation data continue to be strong, treasury rates may continue to rise, mainly driven by short term rate expectations.
- Many asset owners, e.g., of stocks and housing, and borrowers have benefited from central banks' ultra-loose monetary policies. The increase in bond yields in October could be interpreted as a sign of impending problems, especially since a hike in policy rates will undoubtedly raise financial stability concerns.
- US government bond rates did not increase as much as in the UK, driven by a still negative term premium at the 10-year maturity, consistent with the estimates by the Federal Reserve Bank of New York. Interest rate expectations have increased to average 2 per cent since mid-November as the FOMC has signalled tightening policy sooner than expected given persistent upward inflation surprises.
- German 10-year Bund yields remains negative at -0.33, per cent. Euro area interest rate expectations turned marginally positive in October, but are now back in negative territory, partly reflecting concerns about the delta variant's spread in Europe. The odds of the ECB increasing interest rates are thinner than in the UK and the US at the moment, as inflation overshooting the ECB target might be seen as a short interlude.

The relatively benign fixed income climate during the last two years, characterised by a long period of low rates and steady inflation expectations, is now coming under pressure. In particular, the extent to which central banks such as in the UK and the US will react to the inflationary pressures will affect bond markets through a mix of higher policy rates and less stimulatory central bank balance sheet operations.

In October, rates on 10-year UK gilts increase to their highest levels since January 2020. This has been mainly driven by an increase in short-term interest rate expectations (figure 1). After the Bank contradicted market expectations by not hiking in November, the 10-year bond rate decreased to 0.8 per cent in December, largely on the back of a reduced term premium, remaining above the levels observed earlier in the year. The short-term interest rate expectations price-in the Bank rate going back to around its pre-pandemic 0.75 per cent level, and the reduction in the term premium suggests the market sees only a modest risk of it going higher than that.

Since our previous bond premium tracker in September, inflationary pressures have intensified particularly in the third quarter of 2021 driven by both increased demand and households' reliance on pent-up savings, and supply chain constraints. This more inflationary environment is consistent with the higher bond yields in the UK. Based on NIESR calculations, the short-term inflation outlook remains concerning as the increase in the energy price-cap, the possibility of supply disruptions over the festive season, and a planned VAT hike in April 2022 should push inflation next spring to 5%. This implies that consumers' real income will be squeezed as UK economic growth slows. Trimmed inflation measures are no longer so contained any longer and have risen close to 2 per cent, raising fears about a cost-push inflation cycle. These developments increase the scope for a further rise in UK nominal yields.

The UK unemployment rate has decreased to 4.3 per cent in November, but it remains higher than it was before the pandemic. Demand is expected to moderate and many of the shortages that are currently making it difficult for businesses to produce their products could ease by the middle of next year, depending on how the pandemic evolves. Yet, the Bank of England's Monetary Policy Report in November highlights that inflation pressures might be more persistent than the Bank expected earlier. Thus, interest rates might need to rise modestly to return inflation to the 2 per cent target.

Given the global integration of financial markets, a significant share of the movements observed at the longer end of the yield curve reflect changes in international risk and uncertainty, as well as monetary policy developments abroad. The co-movements in the UK and the US are particularly suggestive of spill-overs from the US to the UK (figure 2).

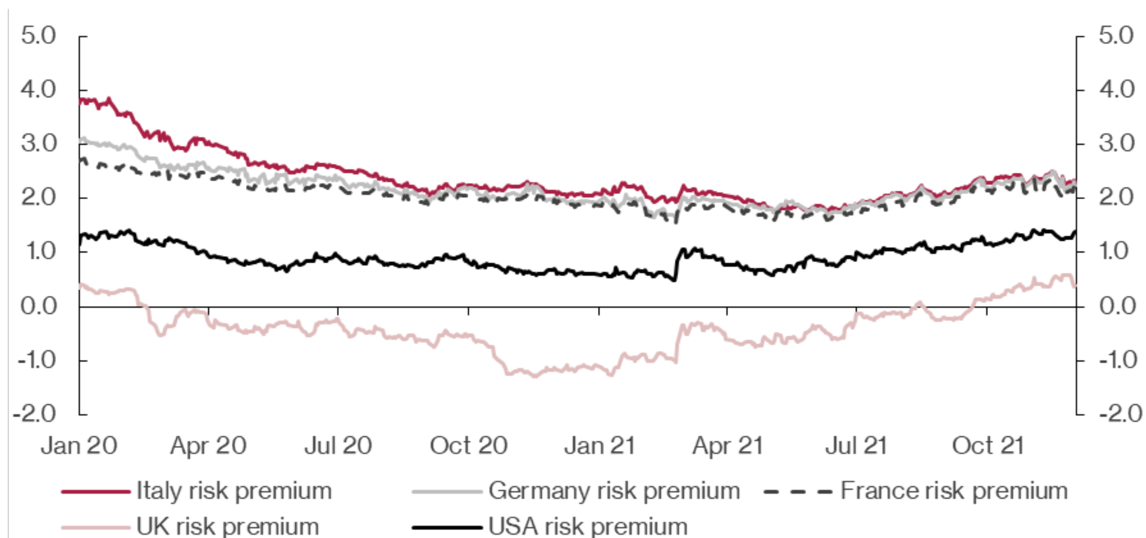
US short-term interest rate expectations have increased to average 2 per cent since mid-November. In November 2021, the 12-month CPI inflation rate reached its highest level in the

US since 1982, 6.8 per cent year-on-year. Core CPI, which excludes food and energy costs, was up 4.9 per cent from a year earlier , the highest increase since mid-1991, in line with previous projections. The minutes of the FOMC meeting in November show FOMC members' concerns about inflation and the willingness to tighten policy "sooner than participants currently anticipated" should it continue to run hot. Despite inflationary pressures, according to the most recent US payroll data, the US economy added just 210 thousand jobs in November below market expectations of 550 thousand, as employers continue to report difficulties in hiring and retaining workers. Markets saw the small rise in payrolls as symptom of a lack of labour supply rather than of demand.

US inflation expectations, as measured by the 10-year breakeven inflation rate, remain high at 2.44 per cent, but have consolidated their decline after the multi-day high reached in mid-November, according to data from the St. Louis Federal Reserve (FRED). The recent spike in rate expectations could be attributed to Fed Chair Jerome Powell's testimony on 1 December suggesting the Fed could decide to double the pace of its taper during its upcoming 15 December meeting, despite the November Nonfarm Payrolls report's negative surprise.

The market mood remains positive, and US government bond rates did not increase as much as in the UK, driven by a still negative term premium at the 10-year maturity (-0.52 per cent in December).

Figure 2 – 10-year term premium estimates across countries (percentage points)



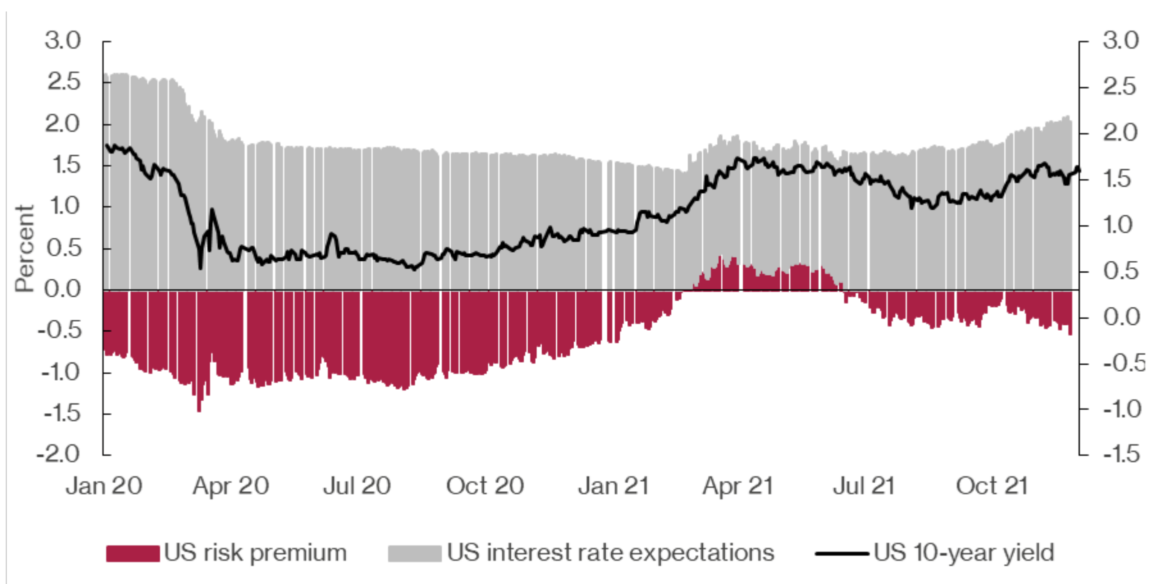
Source: Authors' calculations based on data by Bank of England

Looking at international movements in risk premia for countries such as Germany, Italy and France, suggests that risk premia have been on an upward trend since September. According to early Eurostat estimates, consumer price inflation increased to 4.9 per cent year-on-year in November 2021, up from 4.1 per cent the previous month and beyond market predictions of 4.5 per cent, reaching the highest rate since July 1991. Inflation in the euro area's main economies has also surged to multi-year highs, with rates in Germany (6.0 per cent), Spain (5.6 per cent), Italy (4.0 per cent), and France (3.4 per cent) all hitting multi-year highs.

The monetary policy stance remains more accommodative than in the US – policy rates are negative and QE is not being tapered - even though pressure is mounting for the ECB to slow its asset purchase programme. For the Euro area, the average bond interest rate remains negative, with several euro area bonds (Austria, Germany, the Netherlands, Ireland, and to a lesser extent, Belgium, Finland and France) trading with mostly negative yields.

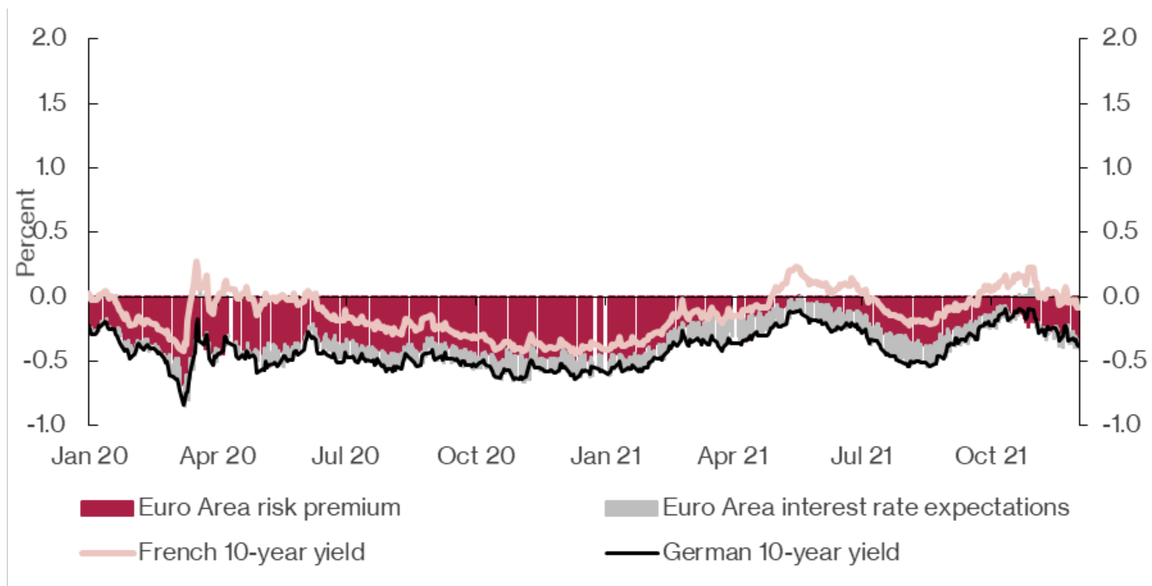
Expectations of euro area interest rate have moved to marginally positive territory in October. This increase represented a short interlude as expectations now remain largely negative (figure 4) owing to both the negative ECB rate on its deposit facility and the model employed for generating future expected short-term rates based on average short-rate predictions.

Figure 3 – US 10-year government bond and decomposition (percent)



Source: Authors' calculations based on data by FRED database at the Federal Reserve Bank of St. Louis

Figure 4 – Euro Area 10-year government bond and decomposition (percent)



Source: Authors' calculations based on data by Datastream

Background

The model we employ enables the decomposition of long-term treasury yields into two components: expectations of the future path of short-term treasury yields, and a term premium. These are, respectively, the average current and expected future short-term interest rates, and the compensation investors require for bearing the risk that short-term treasury yields will not evolve as expected.

The National Institute Term Premium Tracker aims to provide quarterly updates of the bond term premia estimates for the UK, the US and selected European countries based on current daily zero-coupon bond yields data. The bond term premia estimates at the 10-year maturity and the expected average short-term rates for the same maturity are based on daily yields' data from 1961 to 6 December 2021. The analysis is based on a five-factor, no-arbitrage term structure model, described in Adrian et al. (2013; 2014). The estimates we obtain for the US are consistent with those produced by the Federal Reserve Bank of New York.

Our approach makes no assumptions on the structural macro-financial relations in the economy, thus not imposing any long-run equilibrium conditions for either employment or inflation (see also Macchiarelli, 2020; 2021).

Data

Daily nominal bond yields for the UK are obtained from the Bank of England https://www.bankofengland.co.uk/statistics/yield-curves

Benchmark bond redemption yields for European countries and the US are obtained from Datastream. Nominal bond yields for the US are obtained from FRED-Federal Reserve Bank of St. Louis Database https://fred.stlouisfed.org/series/DGS10

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