RECOMMENDED READING

MPC Members

From

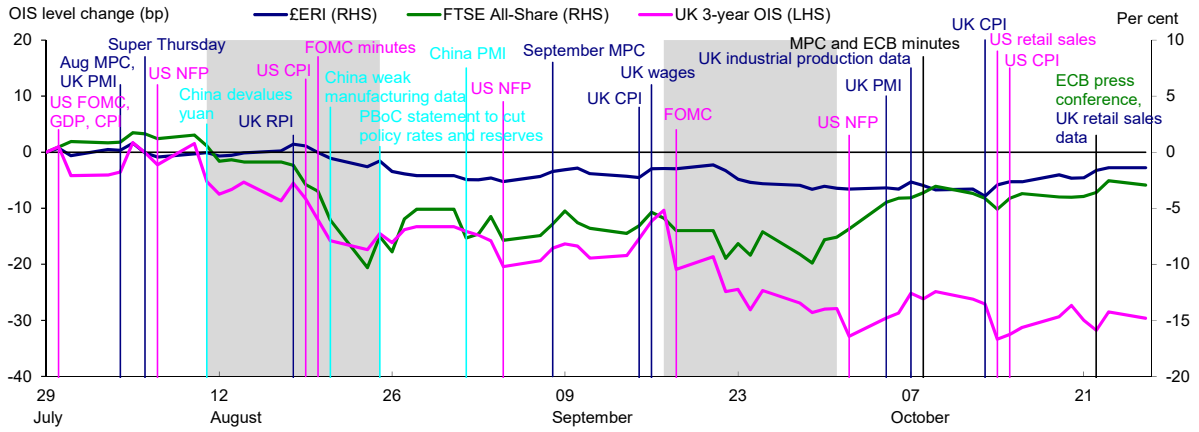
What has driven the fall in short rates since the August Inflation Report?

Main message: *The fall in UK 3-year OIS rates since the August IR mirrors that in analogous US rates, and predominantly reflects international rather than domestic news. The largest falls in OIS rates occurred around the change in the renmimbi fix methodology in August, and September FOMC, although short rates started falling in July. Lower short rates may reflect both a fall in future policy rate expectations and lower term premia. They also largely reflect lower inflation compensation.*

1. This note follows up on some of the discussions at the November IR benchmark meeting. It provides some additional information to previous notes sent ahead of the benchmark meeting.[1] There is also a companion piece collating market intelligence on the shift down in the market curve.[2]

2. The UK OIS curve used to condition the forecast has fallen materially since the August IR – the 3-year spot OIS rate is down 30bps and the 3-year forward rate is down 45bps since the end of July. As discussed at the benchmark meeting, the largest falls in UK OIS rates occurred around the same time as global equity prices fell: in the period following the changes to the renminbi fix methodology and (after recovering somewhat on the UK wages data) again immediately following and in the days after the September FOMC meeting (**Chart 1**).

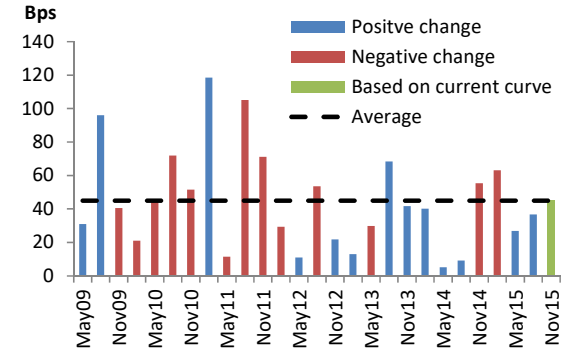
Chart1: Cumulative change in UK 3-year spot OIS rate, sterling ERI and FTSE-AllShare since August *IR*



Source: Bloomberg and Bank calculations

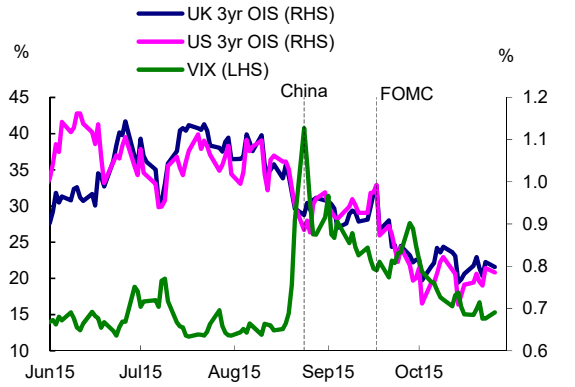
3. Whilst the fall in the OIS curve is large, this scale of inter-Inflation Report short rate moves is not unprecedented (**Chart 2**). It is also striking, though not usual, that moves in UK 3-year spot OIS rates have been almost exactly the same as those in the US (**Chart 3**).

Chart 2: Absolute change in end point of market profile (roughly a 3-year forward rate) between IRs



Source: Bloomberg and Bank calculations

Chart 3: UK and US 3-year spot OIS rates, and the VIX

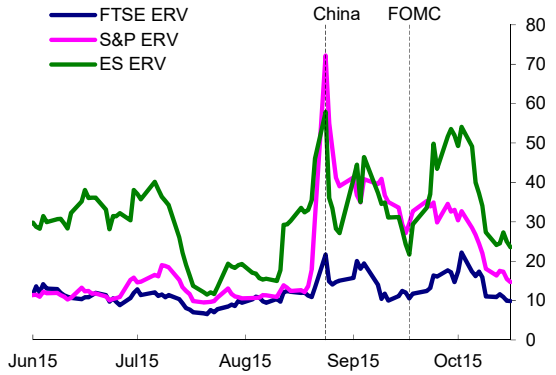


Source: Bloomberg and Bank calculations

[1] See "Asset price movements since the August 2015 Inflation Report",

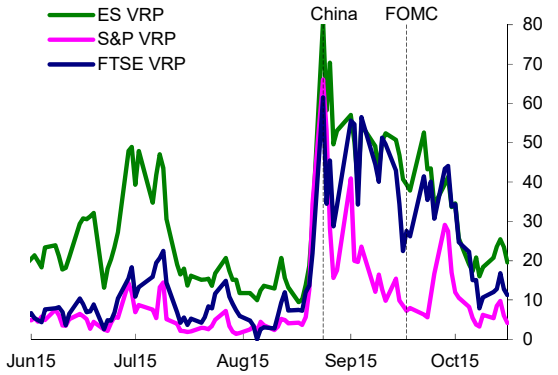
4. Although the fall started in July, the largest moves came around the change in the renmimbi fix methodology – which coincided with a spike in the VIX index of implied volatility – and the September FOMC meeting (**Chart 3**). A rise in the VIX could represent higher risk aversion or greater uncertainty about future equity returns.[3] Based on a model that decomposes implied volatility into these two elements we find that uncertainty about UK equity markets (measured as the Expected Realised Variance (ERV) over the next month) did not pick up to the same extent as in the US or euro area equity markets (**Chart 4**). The main factor behind this difference is the higher losses (larger negative returns) suffered by the US and euro area equity markets, which tend to increase ERV. In the UK, higher equity implied volatility seemed to be driven more by higher risk aversion, as proxied by Variance Risk Premia (**Chart 5**). One explanation for the fall in OIS rates alongside increases in the VIX could be that markets expect near-term monetary policy rates to remain low in response to higher risk aversion and overall market uncertainty.

Chart 4: Expected Realised Variance of FTSE 100, S&P 500 and EuroStoxx 50 over the next month



Source: OxMan Realized Library, Bloomberg and Bank calculations.

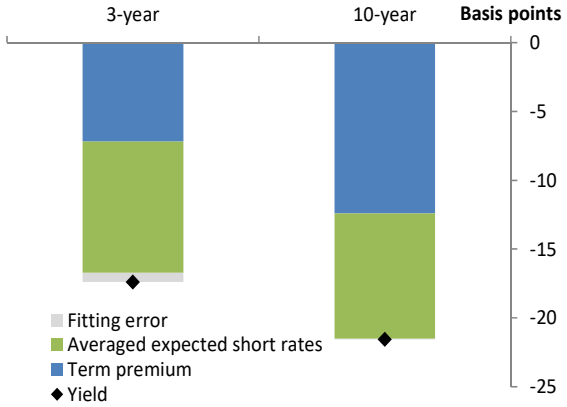
Chart 5: Variance Risk Premia for FTSE 100, S&P 500 and EuroStoxx 50 (risk aversion proxy)



Source: OxMan Realized Library, Bloomberg and Bank calculations.

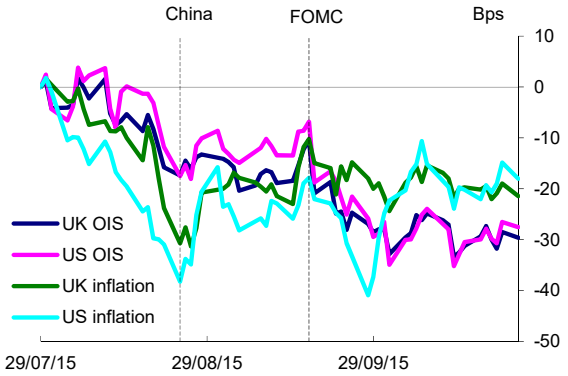
5. A term structure model of UK nominal yields attributes the fall in yields at both 3-year and 10-year maturities between end July and end September to a combination of lower average expected short rates and lower term premia (**Chart 6**). This may be broadly consistent with recent surveys of short rates having fallen by less than market rates, and also market intelligence.[2]

Chart 6: Decomposition of change in UK yields, end July to end September 2015



Source: Bloomberg and Bank calculations

Chart 7: Cumulative change in UK and US 3yr spot OIS and inflation swap rates since end July



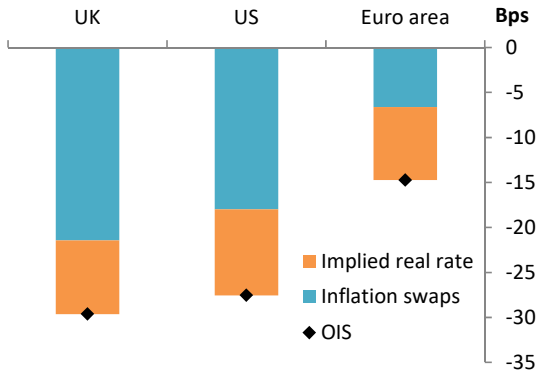
Source: Bloomberg and Bank calculations

6. But OIS rates have continued to fall whilst the VIX and measures of uncertainty and risk aversion have come down. So what else could be driving the fall OIS rates? The falls in UK and US 3-year OIS rates seem to be accompanied by a fall in UK and US 3-year inflation swap rates **(Chart 7),** with real yields falling by less (**Chart 8**). Euro area 3-year OIS rates have fallen too since the end of July, though by less and mostly following

comments by President Draghi last week that a cut in the ECB's deposit rate was a possible option for further easing.[4]

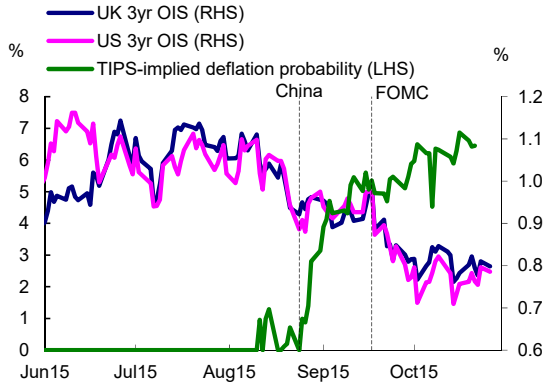
7. Whilst we know market measures of inflation compensation do not give a clean read on inflation expectations (because of changes in liquidity and inflation risk premia),[5] the fall in inflation swap rates could be a sign that investors expect low inflation to persist. Moreover, the recent fall in 3-year OIS and inflation swap rates coincides with a rise in the probability of deflation in the US, as implied by US index-linked bonds (**Chart 9**). Colleagues from the NY Fed noted that the fall in market-based measures of inflation compensation also coincided with a decline in the option-implied probability of inflation being greater than 3%. They thought such a change in the distribution of inflation risks may have led to a fall in inflation risk premia: as the risk of very high inflation is thought to have diminished, investors may demand less compensation for this risk.

Chart 8: Decomposition of change in UK, US and euro area 3-year spot OIS rates into real and inflation components (29 July to 26 Oct)



Source: Bloomberg and Bank calculations

Chart 9: UK and US 3yr spot OIS rates, and implied probability of US deflation*



*Probability that US CPI on April 15, 2020 is below its April 15, 2015 level. Source: Federal Reserve Bank of Atlanta, Bloomberg and Bank calculations

8. Overall, the evidence is mixed on whether the fall in UK OIS rates reflects expectations of materially lower Bank Rate expectations or if it is also partly driven by a change in term premia. As inflation swap rates have fallen, however, this would suggest that (whichever explanation is correct) market participants have not revised their inflation expectations higher given the fall in nominal yields.

Macro Financial Analysis Division, Monetary Analysis