# Policy spillovers when external shocks persist and domestic activity diverges speech by Catherine L. Mann

Given at the Central Bank Research Association, National Bank of Poland and Bank of Lithuania 5th biennial conference 'Macroeconomic adjustments after large global shocks' in Vilnius, Lithuania

20 September 2024

## Speech

## Introduction

Over the past few years, the global economy has been hit by a sequence of global shocks. The global pandemic was followed by severe supply chain disruptions as economies reopened, which was then exacerbated by Russia's invasion of Ukraine and the resulting inflation surge. Meanwhile, both monetary and fiscal policy loosened in tandem across economies in response to the pandemic. Then, in response to the rising inflationary pressures from 2021 onwards – collectively across regions, market interest rates increased as policy rates were raised.

Monetary policymakers have since faced different trade-offs in bringing inflation back to their target. While we might not have quite vanquished inflation everywhere, slowing inflation dynamics and weakening economic growth prospects suggest that the most likely direction for interest rates in the near future is down in these economies. At least this is what financial markets are expecting central banks to do, as implied by the swap curves shown in **Chart 1**.



Source: Bloomberg Finance L.P. and Bank calculations. Notes: All data as of 11<sup>th</sup> September 2024. The final data points shown are forward rates for September 2027. Federal funds rate is the upper bound of the announced target range. ECB deposit rate is based on the date from which changes in policy rates are effective.

At face value, the apparent similarity between the paths for interest rates in the UK and US might be a bit of a puzzle. After all, inflation has been higher for longer in the UK, persistence appears more embedded, and economic growth is weaker. Also, on this scale,

the euro area looks like the odd one out, having never reached the level of policy rates of the other two.

Let me show you the same data in a different way. **Chart 2** shows not the level of policy rates but their cumulative changes since January 2020 in solid lines, and again expected changes over the next 3 years as implied by the respective market forward curve in dotted lines. Quite strikingly, on net, the Bank of England and the ECB roughly tightened rates by the same amount. At their peak, both UK and euro area policy rates were 4½ percentage points higher than they were before Covid.



Source: Bloomberg Finance L.P. and Bank calculations. Notes: Policy rates shown in cumulative changes since 1<sup>st</sup> January 2020. Dotted lines show the respective OIS curve on 11<sup>th</sup> September 2024. Federal funds rate is the upper bound of the announced target range. ECB deposit rate is based on the date from which changes in policy rates are effective.

Plotting the data like this reveals that the gap between the UK and the euro area can be fully explained by differences in initial conditions. Because the ECB was already at or near its effective lower bound for short-term interest rates, accommodation during the pandemic was achieved only with asset purchases rather than a combination of purchases and cuts.

But now the US looks like the odd one out. The Fed had started from a higher level of rates initially, so its hiking cycle ended at less than 4 percentage points above pre-Covid. Despite that, going forward, financial markets are expecting a much steeper path of cuts such that the Fed is expected to be terminating its cutting cycle at only 1 percentage point above the pre-Covid level of interest rates, compared to the 2½ percentage points currently priced in for the BoE and ECB.

In June 2022, I gave a speech highlighting the importance of global spillovers in the context of UK monetary policy, through highly interconnected financial markets and trade networks, to affect macroeconomic outcomes through the channels of domestic interest rates and the exchange rate. This point still holds today, and in fact, might be even more pertinent. As a small open economy, the macroeconomic and monetary conditions of the UK's largest trading partners matter significantly for the domestic outlook. As the macroeconomic outlooks diverge, monetary policies diverge.

## Sources of policy divergence

Let me unpack these points a bit more. In the following section, I am going to compare and contrast the experience of the three jurisdictions throughout this period and how their economies have responded to both common and idiosyncratic shocks.

The most consequential shock of the past few years, outside of Covid itself, was the shock to international energy prices, and subsequently to inflation, caused by Russia's invasion of Ukraine.<sup>1</sup> In **Chart 3** I plot the time series of international wholesale oil and gas prices. Especially for gas, the price shock was massive. At their peak, gas prices were seven times what they had been before the pandemic. While oil prices also increased significantly, the scale was not comparable to gas.



Source: Bloomberg Finance L.P. and Bank calculations. Notes: Oil prices are Brent crude, converted to sterling. Gas prices are Bloomberg UK NBP Natural Gas Forward Day price. Dashed lines refer to respective futures curves using one-month forward prices based on the 15-day average to 22 July 2024, while dotted lines are based on the 15-day average to 12 September 2024. The final data points shown are forward prices for September 2027.

<sup>1</sup> To be precise, energy prices already increased significantly in 2021, that is, before the invasion. However, this was driven in large part by speculative positioning in anticipation of hostile measures such as cutting the supply of Russian gas to Europe.

So, while the source of the shock may have been similar across the world, the percolation to domestic economies was quite different. In part, the energy mix of different regions meant different degrees of exposure to this common shock. But also, institutions and policies to support businesses and consumers differed. In **Chart 4**, I plot the changes in gas and electricity prices for consumers across regions. Consumer-facing energy prices in Europe were multitudes more affected than in the US. And in the UK more specifically, consumer-facing energy prices were higher, and higher for longer compared to both the US and euro area. The UK institutional setting underpinned the jumps, which, even as large as they are, were limited by a cap on energy prices.



Source: Bureau of Economic Analysis, Eurostat, LSEG, ONS and Bank calculations. Notes: Price of household energy utilities in UK CPI, euro area HICP and US PCE prices. Latest data: July 2024.

Given the strikingly different paths, it is perhaps surprising that relative to 2019, the three economies have ended up in a similar place – energy price indices have now roughly converged to a level about 40 percent higher than in 2019. The differing profiles, nevertheless, have had consequences for incomes, consumption, and aggregate price dynamics.

The picture for aggregate consumption is sobering: **Chart 5** plots nominal and real (that is, inflation-adjusted) consumption for the UK, US, and the euro area. In the UK, it looks like the combination of shocks has thrown real consumption perhaps permanently off its pre-Covid trend. For the data we have seen so far, not only is the level of real consumption considerably lower, but the profile of the last two years is inconsistent with returning to the same trend growth rate, let alone the trend itself.



Source: Bureau of Economic Analysis, Eurostat, ONS and Bank calculations. Notes: Dotted lines show a loglinear trend estimated over a 2011-2019 sample period. Latest data: Q2 2024.

This is not the case for the US or the euro area, despite a similar confluence of shocks for the latter economy. There are many candidate explanations for this. For instance, a weaker outlook for supply growth in the UK, a different fiscal stance both in response to the shocks and expected going forward, different savings behaviors of households in response to cost of living shocks and higher interest rates, and the evolving macroeconomic consequences of Brexit.

The gap between the aqua and the orange lines in the chart is the cumulative change in the price level. <sup>2</sup> For all three economies, this gap currently stands at about 20 percent. That means that all three economies have experienced similar amounts of inflation over the past couple of years. But in the UK, more of this price increase has been absorbed in quantities than in the other two. Also, under the hood, the UK has seen more of an impact on services prices, to which I will now turn.

**Chart 6** plots annual inflation in services and goods prices across the three regions. We see that while goods price inflation spiked around the world, albeit at different magnitudes and timings, it has since come down significantly. In the US and euro area, the growth rate in goods prices seems to have settled around its respective long-term average. But this is not the case for the UK, where goods prices have in fact outright fallen, in part on the arithmetic back of how high they rose. This is interesting because it means that the

<sup>&</sup>lt;sup>2</sup> Strictly speaking the difference is the cumulative change in the consumption deflator rather than the consumer price index.

2 percent headline inflation the UK achieved recently was only because sticky and elevated services price inflation has been balanced out by significant goods price deflation.

While this is one of the "target-consistent" combinations of goods and services inflation that I referenced in my OMFIF speech in February, I would argue it is a combination that is not likely to be sustained. First, goods price deflation is not expected to persist, and indeed its long-term average is just under 1 percent. And, services price inflation has proven to be much stickier and in particular has been higher on average than in the other two regions. Hence there would appear to be more upside risks to overall inflation in the UK context.



Source: Bureau of Economic Analysis, Eurostat and Office for National Statistics and Bank calculations. Notes: Latest data: July 2024. UK calculated using the Consumer Price Index, Personal Consumption Expenditure for the US, and the Harmonised Index of Consumer Prices for the EA.

What underpins the apparently higher and stickier UK services inflation? Using a set of time series models, we can decompose services price inflation into labor and non-labor costs.<sup>3</sup> These models show that, across regions, pay growth is the largest remaining driver of services inflation (see **Chart 7**). However, the UK is again an international outlier where pay growth contributes up to 4 percentage points of services inflation. This is compared to 2 percentage points in the US and the euro area.

### Chart 7: Decomposition of services inflation Contribution to year-on-year percentage changes. From left to right: UK, US, EA

<sup>3</sup> Labour costs are proxied using wage growth and non-labour costs are proxied by producer prices in an autoregressive distributed lag (ARDL) model.



Source: Office for National Statistics, Eurostat, Bureau of Economic Analysis and Bank calculations. Notes: As seen also in **Greene (2024)**. Latest data: Q2 2024. UK shows core services excluding rents, whereas US and EA shows PCE and HICP services inflation respectively.

Is it reasonable to assume that wage growth will remain persistently high? For the UK, some moderation in wage growth is expected going forward, as inflation expectations, which are important input to wage negotiations, have made good progress in returning from their highs in 2022. Measures of short- and long-term household inflation expectations have fallen considerably and have returned close to their historic averages (**Chart 8**). During the time when inflation was so elevated, monetary policymakers were concerned about, and acted against the risk of inflation expectations de-anchoring or drifting away from the 2% inflation target, as indeed I addressed in several of my previous speeches.<sup>4</sup> In my view, that risk has largely subsided.

<sup>&</sup>lt;sup>4</sup> See Mann (2022a), Mann (2022b), Mann (2023a) and Mann (2023b).



Source: ECB, European Commission, University of Michigan Survey of Consumers, YouGov/Citi and Bank calculations. Notes: 1-year expectations for the EA are based on the median response to the ECB's consumer expectations survey from 2020, earlier observations are derived based on the European Commission's qualitative survey and spliced onto the ECB measure. 5 -year ahead data are from the ECB's Survey of Professional Forecasters as no household measure at that time horizon is available. Latest data: July 2024.

Beyond expectations, what are other issues relevant for real wage developments? In the medium-term, we need to ask what a sustainable growth rate for wages might be in steady state. **Chart 9** shows two measures of wage growth on top of a swathe of additional indicators. They point to current wage growth in the region of 4 to 6 percent. If we want to assume anchored inflation expectations at the 2%-target, then wage growth needs to fall to between 3-3½ percent, assuming productivity growth is some 1 percent. The Decision Maker Panel and Bank's Agent network do point to a deceleration of wage growth to 4 percent or so. But I struggle to see labor productivity growth reviving sufficiently to 1 percent to support this. The 1 percent productivity growth I have cited here is probably an upper bound since it has not been achieved on any sustained basis since the global financial crisis. Although the MPC maintains 1 percent as its long-run assumption, productivity growth is only expected to be about 0.7 percent by 2026 as continued scarring from Covid and Brexit weigh on the country's supply side, and, frankly, that is charitable.<sup>5</sup>

<sup>5</sup> See Chart 3.5 of the February 2024 Monetary Policy Report.





Further, workers may reasonably seek sustained above-equilibrium wage growth to recover the loss in purchasing power caused by the shocks I've described. Between the structural features of sluggish productivity growth and a realistic role for real wage catch-up, nominal wage growth would be higher than would otherwise be the case given the configuration of domestic demand and inflation expectations. This observation, in conjunction with the high weight for labor costs in services prices, has the potential to prolong the stickiness in services price inflation, in turn prolonging the return of underlying inflation to target.

To summarize, I am concerned that structural factors underpin an unsustainable path for the UK economy with embedded and sticky services inflation to render inflation abovetarget for longer and yet at the same time stagnant real activity. Whereas monetary policies have so far been similar across the three jurisdictions, as I showed in **Chart 2**, the macroeconomic differentials that have opened up may yield more divergence in policymaking, which ought to have important consequences for small open economies.

In the next section, let me elaborate on some research that has informed my views on how diverging monetary policies can create material spillovers to the macroeconomy.

## Effects of policy divergence

When different jurisdictions are hit by a sequence of shocks that percolate differently, and cause fiscal and monetary policies to diverge accordingly, this will be reflected, for example, in capital flows, exchange rates and yields. Particularly as a small open economy, spillovers from other countries may play a significant role in affecting these variables, and therefore macroeconomic outcomes.

Through the lens of econometric models, there are different perspectives you can take on the domestic and foreign drivers of UK sovereign bond yields. The first is simply by geography. **Chart 10** in the left panel, shows this decomposition for the 10-year UK government bond yield using the Bank's 'Rigobon' decomposition model (**Bank Overground, 2022**). Over this past summer, domestic factors contributed positively to UK longer-term yields, whereas US developments and spillovers from Japan contributed to softening.



Source: Bloomberg Finance L.P. and Bank calculations. Notes: Decomposition of 10-year spot nominal UK government bond yield. Left-hand chart is based on a model following **Rigobon (2003)**. The right-hand chart is based on a structural VAR identified using sign and zero restrictions following **Brandt et al. (2021)**. Latest data: 12<sup>th</sup> September 2024.

This analytical approach uses the 'identification through heteroskedasticity' method (**Rigobon, 2003**) which quantifies the relative importance of international spillovers in the bond market but does not identify the fundamental driver.

Whether or not UK bond yields have risen or fallen on account of, say, foreign monetary policy, strong demand, or changes in global risk appetite, is, however, an important

question when assessing the wider macro implications of these spillovers. We know from the work of Kristin Forbes, one of my predecessors on the MPC, and her team that 'the shocks matter' (**Forbes et al., 2018**). And this applies not only to exchange rate pass-through, although I'll come to that in a minute.

To obtain this more fundamental view of what types of shocks drive yields, I show, on the right, the decomposition from a new and refined version of the daily Structural VAR model first presented in my speech on the monetary transmission mechanism (Mann, 2023). We can now analyze monetary policy spillovers between the UK and its two most important trading partners and dominant currency blocks, the US and the euro area. This is a unified framework which also reflects global flight-to-safety behavior and UK-specific risk factors such as the premium arising in the context of the mini budget episode in September 2022, or following the Brexit referendum.

In contrast to the statistical nature of identification of the Rigobon decomposition, this model uses sign and magnitude restrictions derived from economic theory to identify the underlying drivers of bond yields, equity prices, and exchange rates in the three countries and currency blocks. Within each jurisdiction, drivers are disentangled by the co-movement they induce in yields and equity prices. For example, while the monetary policy shock is restricted to cause yields to rise and equity prices to fall, the macro shock assumes that yields and equity prices go in the same direction. To differentiate between jurisdictions, the model uses sign restrictions on bilateral exchange rates as well as magnitude restrictions such that domestic shocks affect domestic variables more than foreign variables.

Constructively, we see a similar picture to the Rigobon decomposition emerging, with the observed fall in UK yields driven mostly by US spillovers. The Japanese component is being picked up in the risk shocks in the model which can be interpreted as deviations from interest parity conditions. The structural identification reveals that the positive contribution of UK factors can be explained by a stronger than expected macro outlook (salmon-colored bars) rather than a more hawkish MPC pricing (orange bars). The drag from US factors is being explained by both underlying drivers: While the US macro outlook has soured (light green), markets have priced a dovish tilt by the Fed exacerbating the fall in global bond yields (green). These spillovers are a material input to my monetary policy decision-making landscape.

Let us turn to what all this means for the exchange rate, which for a small open economy can loom large.

The left-hand panel of **Chart 11** shows the decomposition of the bilateral sterling-dollar exchange rate derived from this model. We see that US factors, in green, have had an outsized influence on the exchange rate. While UK yields fell by 30 basis points over the

past few months, Sterling appreciated by about 4 percent relative to the US dollar. That is because US rates fell by even more: The long-term interest rate differential moved in favor of sterling by some 40 basis points.

#### Chart 11: Model-based drivers of sterling and survey-based drivers of UK rates Cumulative changes in percent and percentage points 100% Percent Cumulative change in GBP/USD EA policy and macro factors 80% 4 US policy and macro factors ર 60% 2 UK macr 40% Globa 20% Global **Risk factors** -2 Jul Aug Sep May 23 Jun 23 Feb 24 Mar 24 May 24

Source: Bank calculations and Market Participants' Survey. Notes: The left-hand panel is based on a structural VAR identified using sign and zero restrictions following **Brandt et al. (2021)**. Bars on the right-hand side show responses to the question: "Since the [last] MPC meeting, UK short rates have [increased/decreased]. Please weight the contributions of the following factors (UK specific developments, global developments, market technical factors, and other) in affecting this move in the one-year one-year forward swap rate". And where available, from the follow-up question: "Within UK specific developments please weight the following sub-factors in terms of their importance of driving these moves". An option to split global factors into macroeconomic drivers and policy was only available from March 2024. The question was reformulated in subsequent surveys, so we only show results until May 2024.

To lend credence to the models, where foreign drivers dominate UK rate movements, the right- hand panel of **Chart 11** shows what the respondents in the Bank's Market Participants Survey have to say about different drivers of UK rates. In the latest survey with this particular question, over 60 percent of respondents believed that global factors were the dominant driver.

These charts show quite strikingly that for a small open economy such as the UK, interest rate expectations, the exchange rate, and broader financial conditions can exhibit substantial changes, not on account of domestic conditions but on account of international spillovers. Because the overall change in financial conditions has important implications for the domestic macro variables that we care about, international spillovers become an important consideration for policymakers. And that is especially true when markets are

pricing diverging macroeconomic fortunes and, accordingly, diverging macroeconomic policies.

To complement the evidence from models and surveys and to illustrate the effects of international spillovers on macroeconomic variables, let me ask the following question: What if bond markets are getting ahead of themselves? What if they are pricing too dovish a Fed, or too poor a growth outlook? Our new spillovers model allows us to address this question by imposing alternative paths for the drivers underlying the observable variables.

Let's consider a specific counterfactual scenario: Assume that over the period shown (and conditional on all the same shocks), the US growth outlook in fact is more robust such that US long-term yields end 100 basis points higher than they actually have. As shown above (**Charts 10 and 11**), this model implies material spillovers from the US to UK and European bond markets. Therefore, the conjectured more robust US outlook would also cause a repricing of UK and euro area rates, by around 60 basis points. By the model's calculation, this repricing would just about offset the 40 basis point opening up of the UK-US rate spread since July, noted earlier.

What would this scenario imply for the sterling-dollar exchange rate? Using the spillovers model, instead of appreciating by 4 percent, sterling would have depreciated by about 3 percent given all the same non-US shocks. A different conjecture for US growth alone yields a difference of 7 percentage points for the sterling-dollar bilateral exchange rate, and importantly a switch in sign!

The Bank of England does not target exchange rates, so to assess what this counterfactual scenario might mean for our policy stance, we need to map these moves into the variables that we do care about, specifically consumer price inflation. The model itself does not allow us to make this leap, but to complete the analysis, I'll bring to bear an updated version of the Forbes et al. work on exchange rate pass-through multipliers cited earlier, now estimated over a sample including the Brexit depreciation of sterling relative to a broad set of other currencies. A key observation of the work is that the origin of the shock driving the move in the exchange rate matters for the pass-through thereof into domestic inflation. A more robust US economy, along with the implication of a more robust global economy should matter for exchange rate pass-through. I estimate that a counterfactual of strong US growth would be consistent with a depreciation in broad sterling by between 1.5 and 3 percent.<sup>6</sup>

<sup>&</sup>lt;sup>6</sup> Since that model is estimated on the nominal effective exchange rate instead of the bilaterals used in the daily decomposition, the mapping requires taking a stand on the implied effect of stronger global demand on sterling ERI. The numbers quoted above are derived using a range of estimates when applying either the raw weights of dollar and euro in the Bank's <u>sterling exchange rate index</u> or the weights implied by <u>the currency of invoicing in UK imports</u>.

We estimate that pass-through to import prices is mostly complete such that exchange rate movements have a roughly one-to-one effect on UK import prices, albeit with wide confidence bands. Behind the border is where the action happens. What critically matters for this step in pass-through are domestic demand conditions and the pricing power of retailers and distributors along the supply chain.

Depending on the nature of the shock – for example, spillovers versus domestic policy – the same exchange rate movement can have materially different implications for domestic macro conditions. In the case of our counterfactual where more robust US growth generates strong global demand growth and this depreciates sterling, I estimate the eventual rise in the level of consumer prices to be at most half a percent. Not a big deal. However, if this same depreciation were caused by a dovish MPC instead, with our reestimated multipliers, the effect on the level of consumer prices would be up to three times as large.

To me, this illustrates two very important and related points: First, exchange rates and broader financial conditions in a small open economy such as the UK will be affected by the decisions of economic policymakers outside the country. Domestic policymakers need to take those decisions into account and position themselves accordingly. This is especially pertinent when international financial markets are febrile and volatile.

Second, the same moves in the exchange rate are not all alike in terms of their consequences for inflation. How currency moves pass through to consumer prices depends crucially on the nature of the underlying shock. For example, if domestic demand conditions are strong, then exchange rates tend to appreciate alongside a rise in consumer prices and inflation. The sterling appreciation of the summer may not have a material effect in dampening consumer prices because, as the salmon-colored bars in **Chart 11** show, markets were pricing somewhat stronger than expected demand in the UK.

The economic divergence in activity and inflation for the UK, US and EA has been translated by financial markets into an expected divergence in monetary policy strategies. Managing domestic dynamics as well as the spillovers from decisions by other policymakers is a challenge for monetary policymakers, particularly to those of small open economies, including those of the coordinators of this conference, the central banks of Lithuania and Poland. But, also, of course for the Bank of England.

## **Strategy implications**

This brings me to my final section. I will conclude this talk with the thought process leading me to my vote yesterday. First, I will frame my vote in the context of how the Monetary

Policy Statement, issued yesterday, outlined three ways of thinking about the UK economy.

Quoting directly from the Monetary Policy Statement:

As set out at the time of the August Monetary Policy Report, the Committee's deliberations have been supported by the consideration of a range of cases, to which different probabilities and different risks can be attached.

In the first case, the unwinding of the global shocks that drove up inflation and the resulting fall in headline inflation should continue to feed through to weaker pay and price-setting dynamics. The persistence of inflationary pressures would therefore dissipate with a less restrictive stance of monetary policy than in other cases. In the second case, a period of economic slack, in which GDP falls below potential and the labour market eases further, may be required in order for pay and price-setting dynamics to normalise fully. Domestic inflationary persistence would then be expected to fade away, owing to the opening up of slack from a more restrictive stance of monetary policy relative to the first case.

In the third case, the economy may be subject to structural shifts such as changes in wage and price-setting following the major supply shocks experienced over recent years. The degree of restrictiveness of monetary policy may be less than embodied in the Committee's latest assessment, meaning that monetary policy would have to remain tighter for longer.

Against the economic structures described in the cases, how have data and research informed my votes this year?

My first general point is that understanding macro dynamics requires a disaggregate data lens, and, particularly given the dynamics of UK consumption, a linking of household real incomes, labor market conditions, and firm's pricing power. There has been significant progress towards sustained 2 percent inflation, but structural factors, as discussed above, may inhibit getting to target on a sustained basis within the monetary policy horizon without maintaining a restrictive monetary stance for longer.

My second general point is that the relationship between monetary policy, the restrictiveness of stance, and macroeconomic outcomes may have changed. It is plausible that the terminal rate applicable for the monetary policy horizon has risen, implying that monetary policy has been less restrictive than is presumed by our models. And in any case the financial environment is highly affected by the policy spillovers that are the main topic of this speech.

Let me pose and answer a set of questions to elaborate these points, using my specific votes.

First, the August vote: Why did I vote to hold Bank Rate at 5.25 percent whereas the MPC's decision was to cut Bank Rate? At that meeting, I judged that there were upside risks to demand via market sector output and public sector wage agreements. Inflation persistence in wages and services prices continued to be reflected in data and model decompositions (as shown **Charts 7 and 9**). Remaining on the 5.25 percent Bank Rate plateau for some time longer and then cutting more aggressively, an 'activist' strategy to monetary policy that I outlined the last time I talked about spillovers (Mann, 2022), would have helped to reinforce the deceleration of inflation to the 2% target sustainably in the medium-term.

Second, why was it not good policy for me to vote to hike at this September meeting, to get back to the August stance, if I thought that was the appropriate level for Bank Rate? In fact, in August, I did contemplate a cut at that meeting, as the bite from housing costs was becoming deeper and more widespread but was dissuaded by the balance of factors already mentioned, as well as a generalized easing in global conditions that affected UK rates too. If I had voted to hike in the meeting just past only to cut sometime soon hence, this would be the 'boogie-dance' with policy rates that I eschewed in my Lamfalussy speech in February 2023.

Third, what are the factors that make me comfortable to vote with the majority to hold Bank Rate at 5 percent at the just concluded September meeting? There is a further accumulation of evidence of consumer weakness across products and particularly middleincome deciles, as housing costs are a larger fraction of their consumption basket. In addition, savings rates have continued to be high, and cannot be explained by intertemporal substitution alone. Is there a new structural fragility to consumer psyche and prospects, perhaps a scarring from the set of shocks (Brexit, Covid, war, energy and food price shocks)?

For inflation evidence, I have focused on the gap between services and goods price inflation relative to historical experience (as shown in **Chart 6**), and on firm's pricing power for products that are particularly income and price sensitive. Price inflation of these consumer-discretionary services continued to decelerate through the August reading. The Bank Agents' assessment of firms' pricing power now suggests that consumer-facing firms are less sanguine about their pricing power especially for products with modestly growing or price-and-income elastic demand.

Finally, what about financial markets? Market intelligence suggests that a non-negligible percentage of market participants believe that inflation could stay above target for an extended period of time. I agree with this judgement.

In my view, the monetary policy stance has been less restrictive during this hiking cycle than assumed by our models, for two reasons. First, monetary conditions at the start of the hiking cycle were much looser than as measured by the policy rate (Mann, 2022). Second, there is a range of evidence to suggest that the neutral rate of interest has increased relative to the assumption embedded in our forecast models. Consensus expectations of long gilt yields lie at 3.7 percent, and the Bank's Market Participants Survey (MaPS) has pegged the nominal neutral rate at between 3 and 3½ percent for almost two years now.

It is clear from the discussion of the data and research that I put a higher probability on the structural economic factors embodied in the third case of those outlined in the Monetary Policy Statement. Structural behaviours in UK labor and product markets appear to have systematically embedded inflation, such as a rise in the medium-term equilibrium rate of unemployment, catch-up bias in wages and prices, a fall in potential growth, along with the rise in the nominal neutral interest rate. Policy therefore needs to remain restrictive for longer to purge these behaviours.

A risk management assessment implies that it is better, under inflation uncertainty, to remain restrictive for longer, until right tail risks to the inflation process dissipate, and then to cut more aggressively. This more activist policy strategy not only achieves the inflation target sustainably in the medium term but allows to do so at a lower sacrifice ratio. Therefore, while agreeing with the majority for a hold at the meeting just concluded, I have a guarded view on initiating a cutting cycle.

The views expressed in this speech are not necessarily those of the Bank of England or the Monetary Policy Committee.

## Acknowledgments

I would like to thank, in particular Lennart Brandt and Natalie Burr, as well as Andrew Bailey, Jake Bartholomew, Ambrogio Cesa-Bianchi, Jenny Chan, Zaar Khan, Josh Martin, Michael McLeay, Donal McVeigh, Huw Pill, Nades Raviraj and Martin Seneca for their comments and help with data and analysis.