Report to the Treasury Committee
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Economy and voting record

1. Since my last annual report, inflation has been driven up by the largest set of cost-push shocks in the MPC's history. Inflation at the time, in July 2021, was exactly in line with our 2% target, although output and employment still looked well below their medium-term potential levels. In the 12 months since, the CPI has accelerated rapidly, with inflation reaching 10.1 per cent in July 2022, and set to rise further still over the remainder of this year. From a starting point of price stability, this has been the most rapid pick-up in inflation in over 40 years.

2. By our August 2021 *Monetary Policy Report* we were anticipating an inflation overshoot, although it has been far larger than could have been predicted. The causes are well understood. I gave a speech in November 2021 on the initial driver of the inflation pick-up – a rapid increase in globally-traded goods prices, which stemmed from Covid's effects on global demand and supply.[1] Successive waves of the virus, arriving at different times in different locations, led to lockdown-related disruption in supply chains and transportation, restricting goods supply. At the same time, Covid induced a shift across the world away from in-person services towards goods spending, which, combined with large-scale fiscal support, especially in the US, led to a large increase in goods demand. While this would ultimately be temporary, the persistence of the effect was uncertain, since it depended on the evolution of Covid around the world, as well as the responses of governments and individuals.

3. Energy and other commodity prices have been even more important in accounting for above-target inflation, both in the build-up to and after the Russian invasion of Ukraine. In my November 2021 and February 2022 speeches I also discussed the appropriate policy response to movements in energy prices.[2] The direct impacts of these shocks drop out of the inflation calculation after 12 months, before the peak impact of any monetary-policy response. As a result, our Remit implies that policy should not respond to these direct impacts. Trying to would only add more volatility to inflation. Instead policy should bring inflation back to target by responding to the balance of two offsetting channels: i) any second-round effects on domestic price and wage setting, which will tend to delay inflation returning to target; and ii) a fall in demand from lower real incomes, which will pull down on medium-term inflation. These persistent effects were best judged using metrics of domestically-generated inflation, such as wages and core services prices, supplemented by information from the Bank's Agents.

4. Towards the end of 2021, domestic inflationary pressures remained subdued, increasing broadly in line with their pre-Covid trends. Their evolution would depend initially on the tightness of the labour

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[1] Tenreyro (2021), "International trade, global supply chains and monetary policy", speech given at CEBR webinar.
[2] Tenreyro (2021), "International trade, global supply chains and monetary policy", speech given at CEBR webinar; and Tenreyro (2022), "The economy and policy trade-offs", 2022 Dow Lecture, NIESR.

market after the end of the Coronavirus Job Retention Scheme (CJRS). If a large proportion of furloughed workers moved into unemployment, then the associated weakness in demand and the labour market would lead to slower cost and price growth, and require looser policy. If furloughed workers were reabsorbed into employment, or if labour supply were to fall in line with employment, unwinding the comparatively small amount of monetary loosening imparted during the pandemic would be required.[3] But given the uncertainty over which scenario would be realised, there was little benefit in changing policy before it was resolved. I therefore voted for no change in policy up to November 2021.

5. By our December meeting, the incoming data had suggested that the labour market remained tight despite the end of the CJRS. But we faced a new uncertainty from the arrival of the Omicron variant. At the time, the available epidemiology and public-health information was clear that the variant would spread rapidly and lead to a large number of Covid infections. However the economic effects were hugely uncertain. They would depend on the severity of the variant, as well as the reaction from consumers, and the policy responses of governments at home and abroad. With different scenarios requiring very different monetary responses, I voted for no change in policy, preferring to reassess the situation in February with full information about the public-health outlook.

6. An important consideration in both cases was that delaying any prospective changes in monetary policy from one meeting to the next would have a minimal impact on inflation outcomes. In a past speech, I showed how delaying a prospective rate rise for one quarter has a negligible impact on inflation – a matter of basis points rather than percentage points.[4] This is because the main influence on the economy is the level of policy rates over a significant period of time, which feeds through into longer-term interest rates and spending decisions. This is largely unaffected by whether a rate change comes a few months earlier or later, particularly as financial-market pricing anticipates future rate decisions even if Bank Rate remains unchanged. In the event, the properties of the Omicron variant and the behavioural response to them led to a scenario at the benign end of the range of possible outcomes for demand. At our next meeting in February, I voted to raise Bank Rate to 0.5%, which is the level I would have judged appropriate at that point irrespective of earlier decisions.

7. With these uncertainties resolved, my votes from February onwards judged a modest tightening of policy was required over the forecast period. Unwinding the small amount of stimulus from lower Bank Rate during the pandemic[5] would bring policy rates back to around the short-run equilibrium interest rate – the rate consistent with demand and supply in balance, and with inflation at its 2% target in the medium-term. As I set out in my February speech, there were important short-run trade-offs to balance concerning the timing and pace of the required policy tightening.

[3] Bank rate was cut by 65 basis points in 2020, less than in previous loosening cycles (250 basis points in 1998/99, 250 basis points in 2001-03, and 525 basis points in 2007-09). QE purchases were large, but the fall in long yields they imparted – which is what matters to gauge QE effects on output and inflation – was small.
[4] Tenreyro (2018), "Models in macroeconomics", speech given at University of Surrey.
[5] See paragraph 4 and footnote 3.

8. With output and employment still below their medium-term potential, tightening too fast or too early would bring costs in terms of the objective in the MPC Remit to minimise undesirable volatility in output. Throughout the pandemic, lower interest rates had helped support a rapid recovery. They had also contributed to the low level of business failures seen during the pandemic, despite the enormous fall in revenues for many sectors. Set against that, the temporary nature of the energy and goods-price inflation meant that a later tightening could have its peak impact when inflation was already below target, making it potentially counterproductive.

9. Despite the risk of slowing the recovery, I judged that there were marginal benefits from raising rates more rapidly back towards the equilibrium rate of interest, in order to lean slightly against above-target inflation, and any second-round impacts on domestic price setting. In line with that judgement, I voted to raise interest rates to 0.5% in February, and by 0.25 percentage points in each subsequent meeting. This has been a fast tightening cycle by historical standards, even more so if measured by the tightening in financial conditions, including a rapid increase in mortgage rates. And by June, I had voted to raise Bank Rate to 1.25%, its highest level since 2009.

10. With inflation currently very far above target, it is worthwhile for accountability to look back and reflect on whether alternative monetary policy options could have led to better outcomes in terms of our Remit. Such counterfactuals are difficult to assess – we set policy under uncertainty, based on the data available at the time. And the main driver of above-target inflation has been a rise in energy prices, which is not something we knew about in advance. The direct impact of this accounts for over half of the inflation overshoot, with indirect impacts on domestic prices accounting for some more.

11. But with the benefit of hindsight, would I have set policy differently? If, hypothetically, we had known about all of the shocks that were going to hit the economy in advance (including the war in Ukraine, the evolution of Covid and the behavioural response to it, as well as any changes in fiscal policy), would a different policy have better met our Remit? I have already set out why, for example, I think raising rates one quarter earlier would have made almost no difference. To have any appreciable impact on the current inflation overshoot, policy would have had to have been materially tighter. And since it takes some time before policy has its peak effect on the real economy, it would have to have been materially tighter at the height of the pandemic in 2020 and 2021. There are at least three reasons why I judge such a policy would not have been in line with our Remit.

12. First, when faced with a large or persistent trade-off, we are required to give due consideration to output volatility. I showed in my February 2022 speech that implementing a policy that had inflation close to the 2% target right now would have required an enormous tightening in policy – to double-digit interest rates, creating double-digit unemployment – during the worst of Covid.[6] Energy price rises always present policymakers with such a trade-off – they increase inflation while simultaneously reducing demand and increasing unemployment. Monetary policy could never offset all of these

[6] Tenreyro (2022), "The economy and policy trade-offs", 2022 Dow Lecture, NIESR. This updated calculations from Broadbent (2021), "Lags, trade-offs and the challenges facing monetary policy", speech given at Leeds University Business School.

impacts on the economy, even if they were known in advance. It can only choose how much to accommodate above-target inflation, or how much to lean against it by reducing demand. Acting materially against the inflation from an energy-price increase of this size would have required an enormous increase in unemployment, and a fall in output, which I would see as impossible to justify within our Remit.

13. Second, an alternative policy that offset more of the current inflation overshoot would necessitate reducing inflation significantly below target in the medium term.[7] Over 2022 we have faced a trade-off between above-target inflation in the near term, and below-target inflation in the medium term. This is a consequence of the extremely large but short-lived direct impact of higher energy prices on inflation. Energy prices were contributing little to inflation a year ago, rising to 6½ percentage points in 2022 Q4, and projected to fall back to zero in 2024.[8] There is no realistic monetary policy that could have offset a material proportion of the resulting inflation rise this year, without also reducing inflation well-below target when energy prices stop rising. I also do not believe this impact on medium-term inflation would be consistent with our Remit.

14. Third and finally, even if one were to come to a different judgement on how to navigate these trade-offs, the circumstances of this set of shocks would have made it impossible for monetary policy to significantly reduce inflation this year. Bank Rate increases reduce inflation by lowering demand, increasing unemployment and reducing nominal (and real) wage growth, which feeds through to price-setting.[9] But since the increase in unemployment would have had to come during 2021, it is difficult to see how this could have occurred, given the furlough scheme was successfully protecting those jobs. Moreover, since materially lower inflation right now would require a larger recession, and a bigger medium-term inflation undershoot, it would also have been difficult to generate the required tightening in longer-term interest rates. Markets would infer that Bank Rate increases on the required scale would lead to a sharp reversal in future. This would be priced into long-term interest rates, offsetting at least part of the initial tightening. Such a dynamic has been evident in some recent market moves in yields and exchange rates in response to economic data.

15. Along with my colleagues, I also voted for changes in our asset purchase programme over the past year. The evidence on the effects of QE suggest that its effects are highly state-contingent. Beyond the period of market dysfunction in March 2020, in my view, later asset purchases were serving largely as insurance, rather than adding any stimulus to the economy. I therefore judged it appropriate to complete our previously announced asset purchase programme in 2021, in line with our earlier announcements, but saw no rationale for further purchases, given markets were functioning well. In February 2022 I also voted alongside colleagues to reduce our asset purchase stock, by ceasing

[7] It would also have required inflation to be further below target earlier in 2021.
[8] This was the expected contribution at the time of the August 2022 MPR, and does not incorporate information from subsequent movements in energy prices or the July 2022 CPI release.
[9] The fall in real wages would have been very large independently of the monetary policy response, but would have been larger still had policy been tighter, since unemployment would have been higher. Energy price increases will always increase consumer prices relative to wages, resulting in a reduction in the real wage; whereas monetary policy will mainly move both wages and prices together, so tighter monetary policy has a smaller (though negative) impact on real wages.

reinvestments in the case of gilts; and through active sales of corporate bonds. With Bank Rate available as a more effective instrument, the intention was to reduce our government bond holdings in a gradual and predictable manner.

Current outlook

16. My central outlook for the economy is broadly in line with the baseline scenario presented in the August *Monetary Policy Report.* In the near-term, inflation will increase from its current extremely high level, driven almost entirely by further energy price rises. It will then fall back rapidly as the impact of external price pressures drops out of the annual calculation. Domestically, the labour market is tight, which has fed through since the start of 2022 into an acceleration in wages and core services prices – reliable indicators of domestic cost pressures.

17. Looking ahead, however, demand is already weakening, mainly in response to the sharp fall in real incomes brought about by higher energy and tradeable goods prices. Conditional on energy prices staying high, and announced fiscal policy, the impact of the fall in real incomes on spending will drive the economy into recession. Adding to this, we are still to see the majority of the impact of the significant policy tightening already in place. This will feed through over time, as, for example, mortgage borrowers with fixed-rate contracts need to refinance at higher rates. The output gap will widen and the labour market is likely to loosen, increasing unemployment.[10] The exact size of the downturn will be influenced by monetary policy, as can be seen by comparing our market-rate and constant-rate forecasts. But under either policy, a growing output gap and higher unemployment are likely to weigh heavily on domestic inflationary pressures, contributing to a fall in inflation below target in the medium-term.

18. Consistent with that forecast, in August I thought that at 1.25%, the policy rate was more likely than not to have reached its short-run equilibrium level. In other words, the prevailing interest rate was consistent with inflation falling back at least to target in the medium term. But there were two risks also influencing my assessment of the appropriate policy rate. First, the equilibrium rate of interest is inherently uncertain. While my most likely scenario was that the prevailing rate was sufficient to loosen the labour market and bring domestic cost growth back to target-consistent levels, we will only know this with confidence once we see clearer signs in the data. Second, there are risks around how much the extremely high rate of headline inflation feeds persistently into domestic wage and price-setting, as firms and workers try to catch-up with past price rises. This would tend to delay how long inflation takes to fall back to target.

[10] Although some households could seek to smooth their consumption by running down savings, I do not think this is likely to prevent the projected fall in aggregate demand, given the distribution of those savings. Spending will fall most for the low-income households who are least likely to have been able to build up savings during the pandemic. Even in aggregate, the additional stock of savings built up during the pandemic will have largely disappeared in real terms, as price increases have eroded the value of the overall stock.

19. In the face of these risks, in August I felt it was appropriate to increase Bank Rate further, above my modal estimate of its equilibrium level. I was aware that the costs of doing so are that it will weaken demand further, and given the lags before policy takes its full effect, increase the likelihood that we oversteer into below-target inflation in the medium term. To limit these costs, I voted to raise Bank Rate to 1.5%, a more gradual increase than the rest of the committee. When close to the equilibrium rate, gradual rate rises allow us to react before we tighten too far into contractionary territory, as we observe the lagged impact of policy and demand on the labour market.[11] They also do not preclude voting for more forceful rate increases in future, should adverse wage-price dynamics take hold.

Explaining monetary policy

20. Over the past year I have sought to communicate my thinking on monetary policy and the economy to a range of audiences in a variety of fora. Successful communication is crucial to effective monetary policy. Transparently explaining the rationale behind my policy votes is also vital to ensure that we are accountable to the public and to parliament via the Treasury Committee. I have taken advantage of hybrid arrangements to speak and listen at a range of in-person and virtual events.

21. I have given two on-the-record speeches on monetary policy issues. In November 2021, I spoke on "International trade, global supply chains and monetary policy". This speech explained the causes and implications of the various effects of Covid on the global economy. In February 2022 I discussed "The economy and policy trade-offs". This set out how I would seek to balance the objectives within the MPC's flexible-inflation targeting Remit in the face of extremely large external shocks.

22. Since my last annual report I have participated in four visits with the Bank's regional Agents including Wales, the East Midlands, the South East and East Anglia, and Northern Ireland. The different visits included a mix of meetings and roundtables with local businesses and charities, community forums, and talks to local schools. As always, these visits and our Agency intelligence more broadly have been crucial inputs into my understanding of the economy, as well as an opportunity for me to explain the MPC's actions.

23. Finally, I have given presentations and spoken on panels on a range of other policy and academic events. These have sought to represent the Bank and the UK on an international stage, and allowed me to learn from and contribute to the latest research and policy debates in macroeconomics. Over the past year, I have given talks at events at the New York Federal Reserve; the Yrjö Jahnsson Award Lectures; the International Monetary Fund; the CBI; the European Economic Association, the Centre for Economic Policy Research, NIESR, the Irish Economic Association; the Nobel Symposium conference, Bocconi University; Lancaster University Management School; the Qatar Centre for Global Banking and Finance at King's College London, Goethe University, INSEAD, the Economic Research Centre, and the Salento Macro Meetings.

[11] See Pill (2022), "Monetary policy with a steady hand", speech given at the Society of Professional Economists online conference 2022, for a recent discussion of this strategy.