

**Bank of England**

# Monetary Policy Report

**Monetary Policy Committee**

May 2023



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# Monetary policy at the Bank of England

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## The objectives of monetary policy

The Bank's Monetary Policy Committee (MPC) sets monetary policy to keep inflation low and stable, which supports growth and jobs. Subject to maintaining price stability, the MPC is also required to support the Government's economic policy.

The Government has set the MPC a target for the 12-month increase in the Consumer Prices Index of 2%.

The 2% inflation target is symmetric and applies at all times.

The MPC's [remit](#) recognises, however, that the actual inflation rate will depart from its target as a result of shocks and disturbances, and that attempts to keep inflation at target in these circumstances may cause undesirable volatility in output. In exceptional circumstances, the appropriate horizon for returning inflation to target can vary. The MPC will communicate how and when it intends to return inflation to the target.

## The instruments of monetary policy

The MPC currently uses two main monetary policy tools. First, we set the interest rate that banks and building societies earn on deposits, or 'reserves', placed with the Bank of England – this is Bank Rate. Second, we can buy government and corporate bonds, financed by the issuance of central bank reserves – this is asset purchases or quantitative easing.

## The Monetary Policy Report

The MPC is committed to clear, transparent communication. The Monetary Policy Report (MPR) is a key part of that. It allows the MPC to share its thinking and explain the reasons for its decisions.

The Report is produced quarterly by Bank staff under the guidance of the members of the MPC.

This Report has been prepared and published by the Bank of England in accordance with section 18 of the Bank of England Act 1998.

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- Huw Pill
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PowerPoint™ versions of the Monetary Policy Report charts and Excel spreadsheets of the data underlying most of them are available at <http://www.bankofengland.co.uk/monetary-policy-report/2023/may-2023>.

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## Contents

<b>Monetary Policy Summary</b>	<b>4</b>
<b>1: The economic outlook</b>	<b>7</b>
1.1: The conditioning assumptions underlying the MPC's projections	8
1.2: Key judgements and risks	12
<b>Box A: Monetary policy since the February 2023 Report</b>	<b>32</b>
<b>2: Current economic conditions</b>	<b>34</b>
2.1: Global economy and financial markets	36
2.2: Domestic credit conditions	42
2.3: Demand, output and the labour market	45
2.4: Prices	54
<b>Box B: The cash-flow channel of monetary policy</b>	<b>59</b>
<b>Box C: Agents' update on business conditions</b>	<b>70</b>
<b>3: In focus – The outlook for inflation</b>	<b>74</b>
3.1: Why has inflation been above target?	74
3.2: How have some of the indicators of inflation persistence been evolving?	79
3.3: The MPC's forecast for inflation	87
<b>Annex: Other forecasters' expectations</b>	<b>88</b>
<b>Glossary and other information</b>	<b>90</b>

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## Monetary Policy Summary

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The Bank of England's Monetary Policy Committee (MPC) sets monetary policy to meet the 2% inflation target, and in a way that helps to sustain growth and employment. At its meeting ending on 10 May 2023, the MPC voted by a majority of 7–2 to increase Bank Rate by 0.25 percentage points, to 4.5%. Two members preferred to maintain Bank Rate at 4.25%.

The Committee's updated projections for activity and inflation are set out in the accompanying May Monetary Policy Report. They are conditioned on a market-implied path for Bank Rate that peaks at around 4¾% in 2023 Q4 before ending the forecast period at just over 3½%.

There has been upside news to the near-term outlook for global activity, with UK-weighted world GDP now expected to grow at a moderate pace throughout the forecast period. Risks remain but, absent a further shock, there is likely to be only a small impact on GDP from the tightening of credit conditions related to recent global banking sector developments. Headline inflation has been falling in the United States and euro area, although core inflation measures remain elevated.

UK GDP is expected to be flat over the first half of this year, although underlying output, excluding the estimated impact of strikes and an extra bank holiday, is projected to grow modestly. Economic activity has been less weak than expected in February, and the Committee now judges that the path of demand is likely to be materially stronger than expected in the February Report, albeit still subdued by historical standards. The improved outlook reflects stronger global growth, lower energy prices, the fiscal support in the Spring Budget, and the possibility that a tight labour market leads to lower precautionary saving by households.

Although there are indications that the labour market has started to loosen, it is expected to remain tighter than in the February Report in the near term. The unemployment rate is now projected to remain below 4% until the end of 2024, before rising over the second half of the forecast period to around 4½%.

CPI inflation was 10.2% in 2023 Q1, higher than expected at the time of the February and March MPC meetings, with the upside surprise concentrated in core goods and food prices. Although still elevated, nominal private sector wage growth and services CPI inflation have been close to expectations.

CPI inflation is expected to fall sharply from April, in part as large rises in the price level one year ago drop out of the annual comparison. In addition, the extension in the Spring Budget of the Energy Price Guarantee and declines in wholesale energy prices will both lower the contribution from household energy bills to CPI inflation. However, food price inflation is likely to fall back more slowly than previously expected. Alongside news in other goods prices, this explains why the Committee's modal expectation for CPI inflation now falls back more slowly than in the February Report.

In the MPC's latest modal projection conditioned on market interest rates, CPI inflation declines to a little above 1% at the two and three-year horizons, materially below the 2% target. This reflects the emergence of an increasing degree of economic slack and declining external pressures that are expected to reduce CPI inflation. However, there remain considerable uncertainties around the pace at which CPI inflation will return sustainably to the 2% target. The Committee continues to judge that the risks around the inflation forecast are skewed significantly to the upside, reflecting the possibility that the second-round effects of external cost shocks on inflation in wages and domestic prices may take longer to unwind than they did to emerge. The mean CPI inflation profile, which incorporates this risk, is at or just below the 2% target in the medium term.

The MPC's remit is clear that the inflation target applies at all times, reflecting the primacy of price stability in the UK monetary policy framework. The framework recognises that there will be occasions when inflation will depart from the target as a result of shocks and disturbances. The economy has been subject to a sequence of very large and overlapping shocks. Monetary policy will ensure that, as the adjustment to these shocks continues, CPI inflation will return to the 2% target sustainably in the medium term. Monetary policy is also acting to ensure that longer-term inflation expectations are anchored at the 2% target.

The Committee has voted to increase Bank Rate by 0.25 percentage points, to 4.5%, at this meeting. In doing so the MPC is continuing to address the risk of more persistent strength in domestic price and wage setting, as represented by the upward skew in the projected distribution for CPI inflation.

The pace at which domestic inflationary pressures ease will depend on the evolution of the economy, including the impact of the significant increases in Bank Rate so far. Uncertainties around the global financial and economic outlook remain elevated.

The MPC will continue to monitor closely indications of persistent inflationary pressures, including the tightness of labour market conditions and the behaviour of wage growth and services price inflation. If there were to be evidence of more persistent pressures, then

further tightening in monetary policy would be required.

The MPC will adjust Bank Rate as necessary to return inflation to the 2% target sustainably in the medium term, in line with its remit.

# 1: The economic outlook

CPI inflation remains well above the 2% target and, at 10.2% in 2023 Q1, was higher than projected in the February Report. Inflation is expected to fall sharply from April, as large rises in the price level one year ago drop out of the annual comparison. This also reflects the extension in the Budget of the Energy Price Guarantee and further falls in wholesale energy prices. Food and other goods price inflation have recently surprised on the upside. They are still expected to decline, but food price inflation in particular is projected to do so at a slower pace than in the February Report. Services CPI inflation has been in line with expectations in February and is projected to remain elevated in the near term.

There remain considerable uncertainties around the pace at which CPI inflation will return sustainably to the 2% target. In the modal forecast conditioned on market interest rates, and taking account of stronger paths for food prices and demand growth, CPI inflation is expected to decline somewhat less rapidly compared with the February Report. An increasing degree of economic slack and declining external pressures nonetheless lead CPI inflation to fall to materially below the 2% target, to a little above 1% at the two and three-year horizons. However, the Committee continues to judge that the risks around the inflation forecast are skewed significantly to the upside, primarily reflecting the possibility of more persistence in domestic wage and price setting. The mean CPI inflation profile, which incorporates these risks, is at or just below the 2% target in the medium term.

Global GDP is expected to grow at a moderate pace throughout the forecast period, albeit a little more rapidly than expected previously in the near term. Risks remain but, absent a further shock, there is likely to be only a small impact on GDP from the tightening of credit conditions related to recent global banking sector developments. Domestically, past increases in Bank Rate and the path of market interest rates, alongside a waning boost from looser fiscal policy and relatively weak potential supply, weigh on UK GDP in the medium term. But the Committee judges that growth over much of the forecast period will be materially stronger than in the February Report. This reflects stronger global growth, lower energy prices, the fiscal support in the Spring Budget, and the possibility of lower precautionary saving by households than previously assumed in turn related to a lower risk of job loss. Although there are indications that the labour market has started to loosen, employment growth has been stronger than expected and the path of



unemployment is projected to be lower than in the February Report. The UK economy is judged to have been in excess demand over recent quarters, but a degree of economic slack is expected to emerge from the end of this year.

**Table 1.A: Forecast summary of the MPC's modal projections (a) (b)**

	2023 Q2	2024 Q2	2025 Q2	2026 Q2
GDP (c)	0 (-0.7)	0.9 (-0.3)	0.7 (0.2)	1.1
CPI inflation (d)	8.2 (8.5)	3.4 (1.0)	1.1 (0.8)	1.2
LFS unemployment rate	3.8 (4.1)	3.9 (4.6)	4.3 (5.1)	4.5
Excess supply/ <b>Excess demand</b> (e)	¼ (-¾)	-½ (-1¾)	-1 (-2¼)	-1
Bank Rate (f)	4.4 (4.3)	4.4 (4.1)	3.8 (3.5)	3.6

(a) Figures in parentheses show the corresponding projections in the February 2023 Monetary Policy Report.

(b) Unless otherwise stated, the projections shown in this section are conditioned on the assumptions described in Section 1.1. The main assumptions are set out in [Monetary Policy Report – Download the chart slides and data – May 2023](#).

(c) Four-quarter growth in real GDP.

(d) Four-quarter inflation rate.

(e) Per cent of potential GDP. A negative figure implies output is below potential and a positive that it is above.

(f) Per cent. The path for Bank Rate implied by forward market interest rates. The curves are based on overnight index swap rates.

## 1.1: The conditioning assumptions underlying the MPC's projections

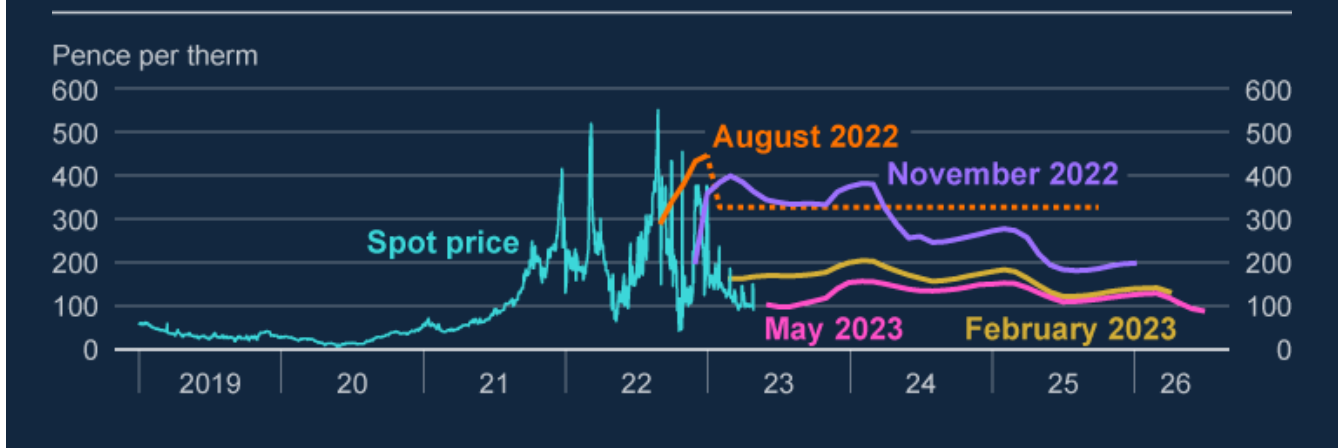
As set out in Table 1.B, the MPC's projections are conditioned on:

- The paths for policy rates implied by financial markets, which are higher than in the February Report, as captured in the 15-working day average of forward interest rates to 28 April (Chart 2.5). In the United Kingdom, the market-implied path for Bank Rate now peaks at around 4¾% in 2023 Q4, up from just under 4½% at the time of the February Report, and ends the forecast period at just over 3½%. This latest UK interest rate path is still below the level prevailing at the time of the November 2022 Report, which

followed the volatility in UK interest rate markets seen in late September and early October, but well above levels seen earlier last year.

- A path for the sterling effective exchange rate index that is nearly 1½% stronger on average than in the February Report, but is depreciating gradually over the forecast period given the role for expected interest rate differentials in the Committee's conditioning assumption.
- Fiscal policy that evolves in line with announced Government policies to date. Since the February Report, the Government has announced a range of additional fiscal support in the Spring Budget, including further energy support measures for households and businesses, temporary 100% capital allowances for qualifying business investment undertaken between 2023–24 and 2025–26, a package of measures aimed at increasing labour market participation, higher defence spending and a freeze in fuel duty in 2023–24. Regarding energy policy, the Government announced that the Energy Price Guarantee (EPG) is now being maintained at £2,500 for a household with typical energy use, for the three months from April, rather than increasing to £3,000 as was planned in the Autumn Statement. During the forecast period, the overall impact of fiscal policy on the economy includes the news in the Budget alongside all previous measures, some of which were only a temporary loosening in fiscal policy (Key judgement 2).
- Wholesale energy prices that follow their respective futures curves over the whole forecast period, as was the case in the February 2023 and November 2022 Reports. Since February, spot gas prices have declined further, to below the level seen before Russia's invasion of Ukraine in early 2022 though not to the average price prevailing prior to mid-2021, and the gas futures curve has also moved lower (Chart 2.2). Over the longer period since last summer, the end point of the MPC's wholesale gas price conditioning assumption has fallen back notably (Chart 1.1), reducing the scale of the external cost shock facing the UK economy. Significant uncertainty remains around the outlook for wholesale energy prices, and the Committee will keep its wholesale energy price conditioning assumption under review.

**Chart 1.1: Wholesale gas spot price and forecast conditioning assumptions for wholesale gas prices (a)**



Sources: Bloomberg Finance L.P. and Bank calculations.

(a) Spot price is the one-day forward price of UK natural gas. The projections in May 2023, February 2023 and November 2022 are conditioned on wholesale gas prices following futures curves. These futures curves are the 15 working day averages to 28 April 2023 and 24 January respectively for May and February 2023 and the seven working day average to 25 October 2022 for November 2022. The projections in August 2022 were conditioned on wholesale gas prices following the futures curve in the 15 working days to 26 July for the first six months and then remaining constant.

- The EPG ceasing to bind on household energy prices from 2023 Q3 onwards, as was the case in the February Report. Instead, household prices are assumed to fall back in line with Bank staff estimates of the Ofgem price cap implied by the lower path of wholesale energy prices.

**Table 1.B: Conditioning assumptions (a) (b)**

	Average 1998–2007	Average 2010–19	Average 2020–21	2022	2023	2024	2025
Bank Rate (c)	5.0	0.5	0.1	2.8	4.8 (4.4)	4 (3.7)	3.7 (3.4)
Sterling effective exchange rate (d)	100	82	80	78	79 (78)	79 (78)	78 (77)
Oil prices (e)	39	78	62	88	81 (81)	76 (77)	72 (73)
Gas prices (f)	29	52	169	201	137 (189)	148 (174)	123 (136)
Nominal government expenditure (g)	7½	2¼	9	4¼	4½ (3½)	2¾ (2¼)	1½ (1¾)

Sources: Bank of England, Bloomberg Finance L.P., Office for Budget Responsibility (OBR), ONS, Refinitiv Eikon from LSEG and Bank calculations.

(a) The table shows the projections for financial market prices, wholesale energy prices and Government spending projections that are used as conditioning assumptions for the MPC's projections for CPI inflation, GDP growth and the unemployment rate. Figures in parentheses show the corresponding projections in the February 2023 Monetary Policy Report.

(b) Financial market data are based on averages in the 15 working days to 28 April 2023. Figures show the average level in Q4 of each year, unless otherwise stated.

(c) Per cent. The path for Bank Rate implied by forward market interest rates. The curves are based on overnight index swap rates.

(d) Index. January 2005 = 100. The convention is that the sterling exchange rate follows a path that is half way between the starting level of the sterling ERI and a path implied by interest rate differentials.

(e) Dollars per barrel, based on monthly Brent futures prices.

(f) Pence per therm, based on monthly natural gas futures prices.

(g) Annual average growth rate. Nominal general government consumption and investment. Projections are based on the OBR's March 2023 Economic and Fiscal Outlook. Historical data based on NMRP+D7QK.

## 1.2: Key judgements and risks

**Key judgement 1: global GDP is expected to grow at a moderate pace throughout the forecast period, albeit a little more rapidly than expected previously in the near term. Risks remain but, absent further shocks, there is likely to be only a small impact on GDP from the tightening of credit conditions related to recent global banking sector developments.**

Bank failures have, alongside broader macroeconomic developments, resulted in global financial market asset price volatility since the February Report. Equity prices have generally recovered after experiencing sharp falls in March (Chart 2.6), and 10-year government bond yields have ended the period broadly unchanged since February in the United States and slightly higher in the euro area. Banks' bond spreads initially widened by around 40 to 80 basis points in these economies, before falling back to some degree.

In the MPC's modal projections, the impact of recent banking stresses on global financial conditions and the international economic outlook is expected to be quite small. Credit conditions in the United States are assumed to tighten to some extent in response to recent events, with a peak impact on US GDP of around  $-\frac{1}{4}\%$  next year. That reflects developments in aggregate bank funding costs and an additional judgement that smaller US banks are likely to restrict their business lending activity to help to offset recent deposit outflows, with some potential borrowers unable to substitute away from small bank credit in the short term. The impact of recent banking sector developments on growth in the euro area is expected to be considerably smaller.

The Bank of England's Financial Policy Committee (FPC) has continued to brief the MPC about recent banking sector developments. The FPC continues to judge that the UK banking system is resilient, maintaining robust capital and strong liquidity positions. It is resilient to the current economic outlook, and has the capacity to support the economy in a period of higher interest rates even if economic conditions are worse than forecast. The FPC is monitoring developments in other jurisdictions closely in light of the risk that indirect spillovers from overseas banks impact the wider UK financial system.

Spreads on UK banks' wholesale funding also rose in March before falling back. The impact of recent global banking sector developments on domestic credit conditions, and hence UK GDP growth, is expected to be small (Section 2.2). The MPC will continue to monitor closely any effects on the credit conditions faced by households and businesses.

Global growth has been more resilient than expected to the headwinds from a range of shocks hitting the world economy. In the May Report projections, UK-weighted world GDP is estimated to have grown by 0.6% in 2023 Q1 and to grow by around 0.4% in Q2, both

stronger than expected in the February Report with broad-based upward revisions across regions (Section 2.1).

Alongside its judgement to push up UK GDP growth in this forecast (Key judgement 2), the Committee also expects somewhat stronger world GDP growth. The euro-area economy in particular appears to be more resilient to the shock from energy prices, which has in any case unwound further. High current storage levels of gas reduce any potential downside risks to euro-area growth if energy supplies were to come under threat again.

Euro-area GDP is expected to grow at a moderate pace over the first half of the forecast period, as real incomes remain squeezed and tighter monetary policy weighs on activity. In the United States, growth is projected to slow in the middle of this year, in part reflecting the expected impact of tighter monetary policy and credit conditions, before recovering over the remainder of the forecast period. Following an earlier-than-anticipated rebound in activity after the end of its zero-Covid policy, Chinese growth is projected to slow to trend over the remainder of 2023.

Overall, in the MPC's modal projection, UK-weighted world GDP growth is projected to slow from 3% in 2022, to 1¾% in 2023 and 2024, before rising to just over 2% in 2025 (Table 1.D). That compares with average annual growth of around 2½% in the decade prior to the pandemic. Growth is expected to be stronger this year than in the February Report.

**| There are risks in both directions around the projection for world GDP growth.**

Growth in advanced economies could be stronger than expected if recent resilience in demand and tightness in labour markets were to continue to a greater extent than assumed in the May modal projections. There is a downside risk to international activity if recent overseas banking sector stresses were to spread more widely through the global financial system, or if the stresses were to have larger impacts on activity in their domestic economies than in the modal projections, including via broader channels onto business and household confidence.

**Key judgement 2: the Committee judges that UK GDP growth over much of the forecast period will be materially stronger than in the February Report, although past increases in Bank Rate and the path of market interest rates, alongside a waning boost from looser fiscal policy and relatively weak potential supply, weigh on UK GDP in the medium term.**

UK GDP is expected to be broadly flat during the first half of this year. However, excluding the impact of idiosyncratic factors such as public sector strikes and the additional bank holiday for the King's Coronation, the economy is projected to grow by around 0.2% in both 2023 Q1 and Q2. This rate of underlying growth is materially stronger than expected in the February Report. The Bank's Agents have also reported recently that activity has been stronger than their contacts previously expected (Box C). In the March Bank/NMG survey, households were more optimistic about the general economic situation and their income and employment prospects than in the previous survey last September. The final S&P Global/CIPS UK composite PMI data for April reinforced recent signs of a strengthening in underlying activity in the economy.

The downward adjustment to the EPG in 2023 Q2 and the continued fall in wholesale, and hence prospective household and business, energy prices since the February Report (Section 1.1) are reducing further the drag on GDP from the real income squeeze and are likely to explain some of the upside news in near-term growth.

The Committee has made a material judgement in this forecast to boost the expected path of demand. This reflects a number of factors, including the possibility in the short term that the economy is more resilient to the energy price shock than expected previously. This channel is also judged to be relevant for the outlook for euro-area growth (Key judgement 1) and so stronger world activity spills back on to the United Kingdom via both trade and investment channels.

Stronger demand in this forecast also reflects the possibility of lower precautionary saving by households than previously assumed, in turn related to a lower risk of job loss. Given the strength of the labour market and the historically very large number of vacancies in the economy, the Committee made a judgement in the February Report that any reduction in labour demand was likely to lead to fewer redundancies than in previous cycles. Some of the latest upside news in near-term GDP could be consistent with such a channel operating to a greater degree than anticipated.

The MPC's latest judgement on demand also means that growth excluding idiosyncratic factors is expected to remain positive beyond the first half of this year, consistent with business surveys and other indicators of near-term growth prospects.

The pass-through of past increases in Bank Rate and the latest, slightly higher, market-implied interest rate path (Section 1.1) continue to push down on GDP over the forecast period. As set out in Box B, the direct cash-flow channel of monetary policy, which tends to reduce spending when interest rates rise, is operating broadly as expected during the current tightening cycle, although the greater share of fixed-rate mortgages means that it



is likely to operate more slowly than in the past. Given such lags in monetary policy transmission, the rise in Bank Rate since December 2021 is expected to weigh to an increasing degree on the economy in coming quarters.

The fiscal measures announced in the Spring Budget (Section 1.1) are expected to boost GDP over the forecast, building to a peak impact of around  $\frac{1}{2}\%$  by the end of the period. This is a slightly larger impact than the 0.3% provisional estimate noted in the March MPC minutes, following a fuller staff assessment during this forecast round. The bulk of the boost to GDP is assumed to come from the temporary 100% capital allowances for qualifying business investment undertaken between 2023–24 and 2025–26, and from the package of measures aimed at increasing labour market participation (Key judgement 3), both of which are assumed to have some positive effects on potential supply in the forecast.

Taking account of all announced government plans, fiscal policy generally pulls down on GDP growth over much of the forecast period, as the positive impacts of past loosening measures, some of which were only temporary, on the level of GDP at the start of the forecast unwind.

In the Committee's May modal projection, underlying GDP growth is projected to remain slightly positive in 2023 Q3 and over the rest of the forecast period, picking up a little further during the final year of the projection. This is a materially stronger profile than in the February Report, when quarterly growth rates were expected to be negative until 2024 Q1. The path of market interest rates, including the impact of increases in Bank Rate to date, and a waning boost from looser fiscal policy continue to weigh on GDP, however, and the path of demand also reflects the relatively weak potential supply projection (Key judgement 1 in the February 2023 Report). Calendar-year GDP growth is expected to be  $\frac{1}{4}\%$  in 2023, and  $\frac{3}{4}\%$  in 2024 and 2025 (Table 1.D). Four-quarter GDP growth picks up to almost  $1\frac{1}{4}\%$  by 2026 Q2 (Chart 1.2), although this remains below pre-pandemic rates.

Relative to the February projection, GDP is around  $2\frac{1}{4}\%$  higher by the end of the forecast period, with around half of that change reflecting demand news and the MPC's judgement, and the other half accounted for by positive news in potential supply. That, in turn, reflects in part developments in fiscal policy, including the package of labour participation measures, as well as a stronger population forecast (Key judgement 3). Relative to the very downbeat GDP projections that the Committee published during the second half of last year, the outlook is now considerably less weak, in large part reflecting successive reductions in the wholesale energy price assumptions conditioning the forecast (Chart 1.1) as well as fiscal support.

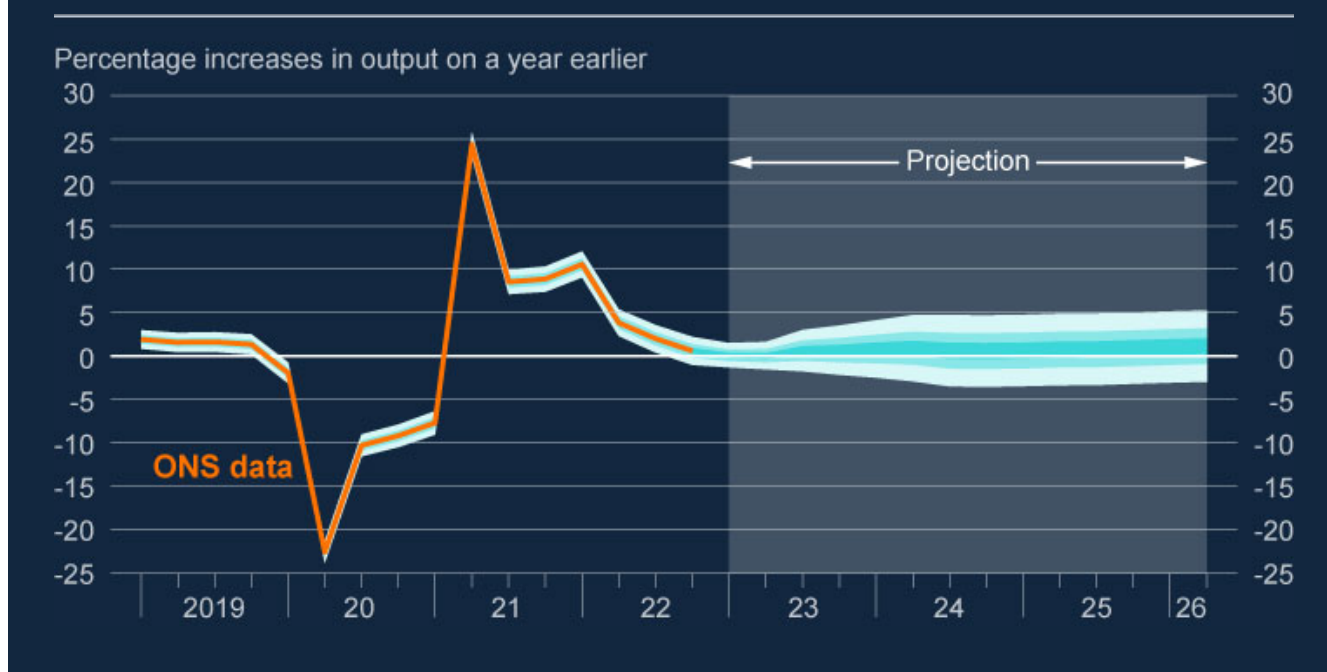


Within the components of GDP underpinning the May modal projection, calendar-year household spending is expected to rise by  $\frac{3}{4}\%$  in both 2023 and 2024 and by 1% in 2025 (Table 1.D). Real post-tax household income is projected to grow by 1% in each of these calendar years, and the household saving ratio is expected to be broadly flat over the forecast period. The paths of both consumption and disposable income are materially stronger than in the February Report.

Business investment is expected to fall by  $\frac{1}{4}\%$  in 2023 and to be flat in 2024, before recovering by  $1\frac{1}{2}\%$  in 2025. This profile is much stronger than in the February Report, reflecting news in recent data, the stronger demand profile and an estimated boost of 3% to  $3\frac{1}{2}\%$  in 2024–25 and 2025–26 from the announcement in the Budget of a temporary increase in capital allowances for investment (Section 2.3).

In large part reflecting the transmission of tighter monetary policy, housing investment is expected to fall by  $4\frac{1}{2}\%$  in 2023, by  $3\frac{3}{4}\%$  in 2024 and by  $\frac{1}{2}\%$  in 2025. Some recent housing and mortgage data have been less weak than in previous months, however.

**Chart 1.2: GDP growth projection based on market interest rate expectations, other policy measures as announced**



The fan chart depicts the probability of various outcomes for GDP growth. It has been conditioned on Bank Rate following a path implied by market yields, but allows the Committee's judgement on the risks around the other conditioning assumptions set out in Section 1.1, including wholesale energy prices, to affect the calibration of the fan chart skew. To the left of the shaded area, the distribution reflects uncertainty around revisions to the data over the past. To the right of the shaded area, the distribution reflects uncertainty over the evolution of GDP growth in the future. If economic circumstances identical to today's were to prevail on 100 occasions, the MPC's best collective judgement is that the mature estimate of GDP growth would lie within the darkest central band on only 30 of those occasions. The fan chart is constructed so that outturns are also expected to lie within each pair of the lighter aqua areas on 30 occasions. In any particular quarter of the forecast period, GDP growth is therefore expected to lie somewhere within the fan on 90 out of 100 occasions. And on the remaining 10 out of 100 occasions GDP growth can fall anywhere outside the aqua area of the fan chart. Over the forecast period, this has been depicted by the grey background. See the Box on page 39 of the November 2007 Inflation Report for a fuller description of the fan chart and what it represents.

In the GDP projection conditioned on the alternative assumption of constant interest rates at 4.5%, growth is weaker than in the MPC's forecast conditioned on market rates.

**| The risks around the projection for UK GDP growth are judged to be balanced.**

As set out in the Annex of this Report, external forecasters' average medium-term projections for GDP remain stronger than the MPC's, even after the upward revision to demand in this projection. This could imply an upside risk to the MPC's growth projection, although it is difficult to make precise comparisons due to potential differences in conditioning assumptions between forecasters. Conversely, demand could be weaker than

expected if some people become more worried about their job security and try to build up their savings to a greater extent, or if some mortgagors who need to refinance in the future take advance actions to prepare for spending more on interest costs.

More generally, the MPC's aggregate projections are constructed based in large part on the average relationships over the past between Bank Rate, other financial instruments and economic activity. The Committee will continue to keep these relationships under review, including how they may have changed during the current monetary policy tightening cycle.

**Key judgement 3: the UK economy is judged to have been in excess demand over recent quarters, but a degree of economic slack is expected to emerge from the end of this year.**

The Committee judges that there has been a significant margin of excess demand in the economy over recent quarters, in part reflecting the weakness of potential supply. In the latest forecast, excess demand has been accounted for by both a higher than normal degree of capacity utilisation within companies and by the tightness of the labour market. Relative to the February Report, there is judged to have been a slightly greater margin of excess demand near the end of last year than estimated previously, with more upside news during the first half of this year.

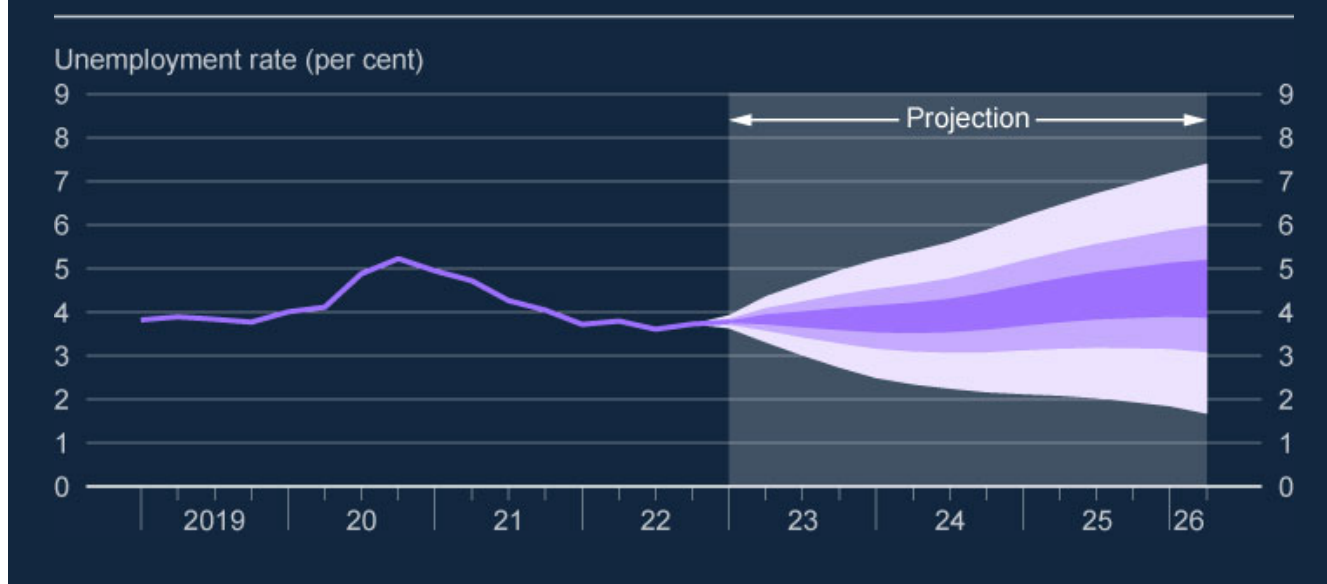
There are indications that the labour market has started to loosen but it is expected to remain tighter than in the February Report (Section 3.2). The unemployment rate was 3.8% in the three months to February, slightly below the MPC's assessment of the medium-term equilibrium rate of unemployment. A fall in the inactivity rate has been the counterpart to a faster-than-expected rise in employment in recent data (Section 2.3). But a stronger near-term outlook for employment is also reflected in a lower expectation for the unemployment rate, which is now projected to remain at 3.8% in 2023 Q2, compared to the 4.1% forecast at the time of the February Report. While the ratio of vacancies to unemployment remains elevated, it has fallen from its peak in 2022, and job-to-job flows have declined (Chart 3.4). The Bank's Agents have also reported an easing in recruitment difficulties.

Reflecting the measures in the Budget, including reforms to funding for childcare, the Committee judges that the potential participation rate is likely to be somewhat higher than it would otherwise have been in the medium term, pushing up on potential labour supply. Supply is also being boosted over the forecast period by stronger population growth, as the ONS has revised up its population projections.

Although supply is expected to remain relatively weak, the headwinds to demand from both the path of market interest rates and fiscal policy lead to some degree of economic slack emerging in the Committee's projections from the end of this year. As has been the case in recent forecasts, companies are expected to respond to this weakness in demand by retaining their existing workers, while using them less intensively and hoarding labour for a prolonged period. That is broadly consistent with capacity utilisation falling back rapidly at the start of this year and remaining some way below normal for much of the remainder of the forecast period. As a result, the labour market is expected to remain fairly tight in the near term. In the MPC's May modal projection, the unemployment rate is projected to remain below 4% until the end of 2024, rather than rising towards 5% as expected in the February Report.

During the second half of the forecast period, unemployment is expected to increase somewhat, with the jobless rate rising to around 4½% by 2026 Q2 (Chart 1.3). Even though this is accompanied by some rise in the medium-term equilibrium rate of unemployment, the increase in the actual unemployment rate leads to a widening degree of spare capacity in the labour market. Overall, the margin of aggregate excess supply is expected to widen to -1% of potential GDP by the final year of the forecast period (Table 1.A). Both aggregate spare capacity and particularly the unemployment rate increase by much less in the Committee's latest projections than in the February Report.

**Chart 1.3: Unemployment rate projection based on market interest rate expectations, other policy measures as announced**



The fan chart depicts the probability of various outcomes for LFS unemployment. It has been conditioned on Bank Rate following a path implied by market yields, but allows the Committee's judgement on the risks around the other conditioning assumptions set out in Section 1.1, including wholesale energy prices, to affect the calibration of the fan chart skew. The coloured bands have the same interpretation as in Chart 1.2, and portray 90% of the probability distribution. The fan begins in 2023 Q1, a quarter earlier than for CPI inflation. That is because Q1 is a staff projection for the unemployment rate, based in part on data for January and February. The unemployment rate was 3.8% in the three months to February, and is also projected to be 3.8% in Q1 as a whole. A significant proportion of this distribution lies below Bank staff's current estimate of the long-term equilibrium unemployment rate. There is therefore uncertainty about the precise calibration of this fan chart.

In projections conditioned on the alternative assumption of constant interest rates at 4.5%, the unemployment rate rises by more in the medium term than in the MPC's forecast conditional on market rates.

**The risks around the unemployment rate projection are judged to be broadly balanced.**

As discussed in the February Report, it remains difficult to distinguish the extent to which developments in labour market participation are persistent or temporary, and the extent to which they may be having an impact on spare capacity in the economy.

It is possible that there has been more persistence in labour market frictions and mismatch than assumed, pushing up on the medium-term equilibrium rate of unemployment to a greater degree than in the modal projection. This would suggest that the labour market has been tighter than the Committee has assumed and would be consistent with greater upward pressure on wage growth (Key judgement 4).

The labour market could remain tight for longer than assumed for a number of other reasons, including the upside risks around the outlook for demand themselves (Key judgement 2). For a given demand profile, an increase in labour hoarding could prolong the tightness in the labour market, although it may not affect the overall degree of slack in the economy. Conversely, the labour market could loosen more rapidly than assumed, again including because of any downside risks to demand themselves.

**Key judgement 4: CPI inflation is expected to fall sharply as energy costs begin to ease. In the modal forecast conditioned on market interest rates, an increasing degree of economic slack and declining external pressures lead inflation to fall to materially below the 2% target in the medium term, but the Committee continues to judge that the risks to that forecast are skewed significantly to the upside. The mean projection for CPI inflation, which incorporates these risks, is at or just below the 2% target in the medium term.**

CPI inflation remains well above the 2% target and, at 10.2% in 2023 Q1, was higher than projected in the February Report. Inflation is expected to fall sharply from April, declining to an average of 8.2% in 2023 Q2, 7.0% in Q3 and 5.1% in Q4 (Table 1.C). That near-term fall in inflation reflects three main factors: large rises in the price level one year ago dropping out of the annual comparison, domestic energy prices starting to fall and a wider decline in input cost pressures (Section 2.4).

The direct contribution of energy prices to CPI inflation is expected to decline rapidly over coming quarters and to turn negative by the end of the year, based on recent wholesale energy price developments (Section 1.1). The adjustment to the EPG in the Budget represents immediate downside news to the outlook for household energy prices, lowering directly the forecast for CPI inflation in 2023 Q2 by around 1 percentage point relative to the February Report. The Ofgem price cap is assumed to operate thereafter, with household energy costs falling back in line with the lower path of wholesale gas prices. Over the second and third years of the forecast period, the direct energy contribution to inflation is expected to be either around zero or slightly negative, based on the downward slope of wholesale futures curves.

Almost all of the upside news in CPI inflation data since the February Report has been accounted for by developments in food and other goods prices. Food price inflation picked up to almost 20% in March (Section 2.4). Bank staff analysis suggests food inflation has been stronger than implied by developments in global agricultural commodity prices alone, reflecting Russia's invasion of Ukraine and wider pressures along the supply chain. Indicators continue to suggest that food price inflation will decline in coming months, but it is now forecast to do so at a slower pace than expected in the February Report. As a

result, the Committee judges that food prices will boost CPI inflation by around an additional 1 percentage point in the middle of the forecast period relative to the February Report, although this is not expected to persist further out.

Core goods price inflation has remained around 5½% to 5¾%, in contrast to the decline to just over 4% expected in the February Report, with particular strength in clothing prices. Other, potentially leading, indicators of goods prices have continued to weaken, however. Global supply chain conditions have loosened further. Shipping rates have stabilised at around pre-pandemic levels and so well below the rates available last year. The Bank's Agents have reported growing confidence among many non-food retail contacts that goods price inflation will ease through the year, reflecting improved supply and lower transport costs. In the latest Decision Maker Panel Survey, companies' expectations of their own-price inflation for the year ahead were stable over the past three months, around 2 percentage points lower than their estimates of realised inflation, implying that businesses expect their own-price inflation to fall over the coming year.

Four-quarter UK-weighted world export price inflation, excluding the direct effect of oil prices, is expected to turn negative in 2023 Q2, before picking back up to be slightly positive in the second half of the forecast period. This is a somewhat stronger medium-term profile for world export prices than in the February Report, reflecting a judgement that some determinants of global prices are unlikely to return to their pre-pandemic trends. The recent appreciation of the sterling exchange rate (Section 1.1) will put some downward pressure on UK import price inflation, and over time on CPI inflation, relative to the February Report. Taken together, import prices are projected to fall by 8¼% in 2023, by 2¾% in 2024 and to be flat in 2025, weaker in the near term and somewhat stronger in the medium term than in the February Report (Table 1.D).

Domestic inflationary pressures have remained elevated, reflecting indirect effects from past energy price increases and some second-round effects. Services CPI inflation was 6.6% in March, in line with expectations in the February Report, and reflecting the strength of nominal pay growth and, to a lesser degree, non-labour input costs. Services CPI inflation is projected to remain elevated in the near term (Chart 3.8), although the moderation of energy and other input cost pressures could start to exert some downward pressure quite soon.

Annual private sector regular pay growth has eased slightly, to 6.9% in the three months to February (Chart 3.5), close to expectations in the February Report. On a three-month on three-month annualised basis, private sector regular pay growth has fallen significantly, from a peak of 9.0% in July to 5.6% in February. Annual growth is expected to continue to decline, to around 5½% by the end of this year and to around 3% by the end of the



forecast period, as short-term inflation expectations are assumed to fall back and a margin of spare capacity is expected to open up in the labour market in the medium term. The Committee has retained its judgement from recent Reports that, owing to the pressures from pay growth, CPI inflation is a little higher throughout the projection than would otherwise be the case. The medium-term path of pay growth is somewhat stronger in the latest projection than in the February Report.

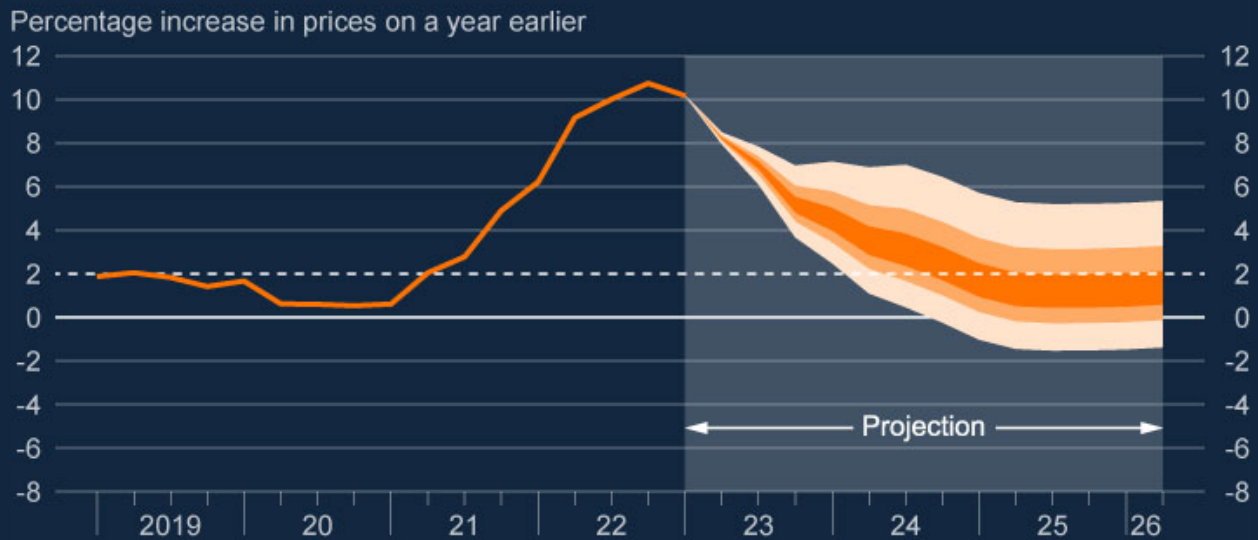
The much less negative output gap profile in the latest forecast, in part reflecting the MPC's judgement to push up demand (Key judgement 2), increases CPI inflation and pay growth throughout the forecast period. In the medium term, the inflation projection is just under  $\frac{1}{2}$  percentage point higher due to this channel, relative to the February Report.

In the MPC's modal projection conditioned on the path of market interest rates, CPI inflation declines to materially below the 2% target in the medium term, as an increasing degree of economic slack is expected to reduce domestic inflationary pressures, alongside a slightly negative contribution from energy and other import prices. CPI inflation is projected to fall to around 2% by the end of next year, and to be 1.1% at the two-year horizon and 1.2% in three years (Table 1.C and Chart 1.4).

Compared with the equivalent February Report projection, CPI inflation is expected to fall back to the 2% target somewhat less rapidly in the middle of the forecast period and hence return to target around three quarters later. This is accounted for in large part by higher expected food price inflation. CPI inflation is somewhat higher in the medium term than in February, largely reflecting the reduction in the projected margin of excess supply in this forecast, although it is still below target in the modal projection.



**Chart 1.4: CPI inflation projection based on market interest rate expectations, other policy measures as announced**



The fan chart depicts the probability of various outcomes for CPI inflation in the future. It has been conditioned on Bank Rate following a path implied by market yields, but allows the Committee's judgement on the risks around the other conditioning assumptions set out in Section 1.1, including wholesale energy prices, to affect the calibration of the fan chart skew. If economic circumstances identical to today's were to prevail on 100 occasions, the MPC's best collective judgement is that inflation in any particular quarter would lie within the darkest central band on only 30 of those occasions. The fan chart is constructed so that outturns of inflation are also expected to lie within each pair of the lighter orange areas on 30 occasions. In any particular quarter of the forecast period, inflation is therefore expected to lie somewhere within the fans on 90 out of 100 occasions. And on the remaining 10 out of 100 occasions inflation can fall anywhere outside the orange area of the fan chart. Over the forecast period, this has been depicted by the grey background. See the Box on pages 48–49 of the May 2002 Inflation Report for a fuller description of the fan chart and what it represents.

**Table 1.C: The quarterly modal projection for CPI inflation (a)**

	2023 Q2	2023 Q3	2023 Q4	2024 Q1	2024 Q2
CPI inflation	8.2	7.0	5.1	4.4	3.4
	2024 Q3	2024 Q4	2025 Q1	2025 Q2	
CPI inflation	2.9	2.3	1.5	1.1	
	2025 Q3	2025 Q4	2026 Q1	2026 Q2	
CPI inflation	1.0	1.0	1.1	1.2	

(a) Four-quarter inflation rate.

In the modal projection conditioned on the alternative assumption of constant interest rates at 4.5%, CPI inflation is projected to be 0.7% and 0.9% in two years' and three years' time respectively, lower than the Committee's forecasts at the same horizons conditioned on market rates.

**The path for inflation beyond the near term is uncertain, and the risks around the modal projection are judged to remain skewed significantly to the upside.**

Against the backdrop of limited spare capacity in the economy, sharp rises from 2021 in world export and commodity prices have resulted in indirect effects and second-round effects on domestic costs and prices. Since last summer most of these global prices have stopped rising. More significantly, given its recent contribution to CPI inflation, there have also been declines in wholesale gas prices in recent months. Nevertheless, there remain considerable uncertainties around the pace at which CPI inflation will return sustainably to the 2% target. The Committee has considered a range of analysis by Bank staff concerning the persistence of inflation in wages and domestic prices.

Some of this analysis supports the view that there are non-linearities in the way inflation reacts to changes in demand. In particular, there is some evidence that the response is greater, to any given increase in demand, when spare capacity is more limited to begin with. Such non-linearities might help to explain some of the recent strength in domestic inflation, given the low level of unemployment. In and of themselves, however, they would not result in greater persistence of inflation. Were the labour market to loosen, equally marked effects in the other direction would be expected.

More relevant may be the potential asymmetry in the second-round effects of changes in import prices. The steep rises in global goods prices weighed heavily on UK real incomes in 2021 and much of 2022. In an effort to protect these incomes, whether wages or profits, employees and domestic firms have sought compensation in the form of higher nominal pay and domestic selling prices. As global prices cease to rise, and in some cases reverse, this should in time reduce the corresponding pressure on domestic inflation. But, to the extent that employees and firms are still seeking to recoup lost incomes, this unwinding of second-round effects may take longer than it did for them to emerge. The current circumstances are highly unusual. As such, it is hard to be precise about the extent of this asymmetry. Nevertheless, the Committee has for this reason judged that, relative to a modal expectation of significant declines in domestic inflation, there remain material upside risks over the medium term.

The pace at which CPI inflation falls back to the 2% target will also depend on inflation expectations. An upside risk to the inflation outlook is that households and firms are less confident that inflation will fall back quickly and do not factor such a decline into their wage and price-setting behaviour. Developments in more visible components of inflation, such as energy and food prices, will have an important impact on inflation perceptions and expectations. Since the February Report, indicators of household inflation expectations have been broadly unchanged at elevated levels (Chart 3.7). Companies' inflation expectations have fallen back a little. Medium-term inflation compensation measures in financial markets have risen somewhat and remain above their long-term averages. The Committee will continue to monitor measures of inflation expectations very closely and act to ensure that longer-term inflation expectations are well anchored around the 2% target.

In addition, there are upside risks around the modal projection for UK CPI inflation from international factors. There remains the possibility of more persistence in consumer price inflation in the UK's major trading partners, for similar reasons to the risks of stronger domestic inflationary pressures at home. Any fragmentation of global supply chains and hence extra costs associated with reshoring production could also lead to stronger world export price inflation in the medium term.

The Committee has considered incorporating some of the additional factors suggesting more persistence into the modal projection for CPI inflation in this forecast, but judges that those are better reflected in a large upside skew as they are inherently difficult to quantify more precisely. Overall, the Committee therefore continues to judge that the risks around the modal projection for CPI inflation are skewed significantly to the upside, primarily reflecting the possibility of more persistence in domestic wage and price setting. This

pushes up on the mean, relative to the modal, inflation projections in the forecast. Conditioned on market interest rates, mean CPI inflation falls back to 1.9% and 2.0% at the two and three-year horizons respectively.

Table 1.D: Indicative projections consistent with the MPC's modal forecast (a) (b)

	Average		Projection				
	1998–2007	2010–19	2020–21	2022	2023	2024	2025
<b>World GDP (UK-weighted) (c)</b>	<b>3</b>	<b>2½</b>	<b>¾</b>	<b>3</b>	<b>1¾ (1)</b>	<b>1¾ (1¾)</b>	<b>2 (2)</b>
World GDP (PPP-weighted) (d)	4	3¾	1½	3¼	2¾ (2¼)	2¾ (3¼)	3¼ (3¼)
Euro-area GDP (e)	2¼	1½	-½	3½	¾ (0)	1 (½)	1½ (1½)
US GDP (f)	3	2¼	1½	2	1½ (¾)	1 (1¼)	1½ (1¾)
Emerging market GDP (PPP-weighted) (g)	5½	5	2¼	3¾	4 (3¼)	4 (4¾)	4¼ (4¼)
of which, China GDP (h)	10	7¾	5¼	3	5½ (3¾)	4½ (6)	4¾ (4¾)
<b>UK GDP (i)</b>	<b>2¾</b>	<b>2</b>	<b>-1¾</b>	<b>4</b>	<b>¼ (-½)</b>	<b>¾ (-¼)</b>	<b>¾ (¼)</b>
Household consumption (j)	3¼	2	-3½	5½	¾ (-½)	¾ (½)	1 (½)
Business investment (k)	3	3¾	-5½	10¾	-¼ (-5½)	0 (-5¾)	1½ (¾)
Housing investment (l)	3	4¼	¾	7½	-4¼ (-6¼)	-3¾ (-8½)	-½ (0)
Exports (m)	4¼	3½	-5	10	½ (-2¼)	0 (-1¾)	½ (¼)
Imports (n)	6¼	4	-5	13½	-3 (-1)	¼ (-¾)	1¼ (¾)
Contribution of net trade to	-½	-¼	¼	-1¼	1¼ (-¼)	0 (-¼)	-¼ (-¼)

GDP <a href="#">(o)</a>							
Real post-tax labour income <a href="#">(p)</a>	3¼	1½	¾	-2½	-½ (-1½)	1¼ (2¼)	1 (¾)
Real post-tax household income <a href="#">(q)</a>	3	1 ½	0	¾	1 (-½)	1 (1½)	1 (¾)
Household saving ratio <a href="#">(r)</a>	7¼	7¾	14¼	8½	8¾ (8)	9 (9)	8¾ (9¼)
Credit spreads <a href="#">(s)</a>	¾	2½	1¾	1	1 (1¼)	1¼ (1¼)	1½ (1¼)
Excess supply/ <b>Excess demand</b> <a href="#">(t)</a>	0	-1¾	-¾	<b>1¼</b>	¼ (-¾)	-½ (-1¾)	-1 (-2¼)
Hourly labour productivity <a href="#">(u)</a>	2	¾	¼	½	-½ (¼)	1 (0)	¾ (½)
Employment <a href="#">(v)</a>	1	1 ¼	-½	¾	½ (-½)	0 (-¼)	0 (0)
Average weekly hours worked <a href="#">(w)</a>	32¼	32	30¾	31½	31¾ (31½)	31¾ (31½)	31¾ (31½)
Unemployment rate <a href="#">(x)</a>	5¼	6	4¾	3¾	3¾ (4¼)	4 (4¾)	4½ (5¼)
Participation rate <a href="#">(y)</a>	63	63½	63¼	63¼	63¼ (63)	63 (62¾)	62¾ (62½)
<b>CPI inflation</b> <a href="#">(z)</a>	<b>1½</b>	<b>2¼</b>	<b>2¾</b>	<b>10¾</b>	<b>5 (4)</b>	<b>2¼ (1½)</b>	<b>1 (½)</b>
UK import prices <a href="#">(aa)</a>	-½	1¼	2½	13½	-8¼ (-5)	-2¾ (-2¼)	0 (-1½)
Energy prices – direct contribution to	¼	¼	½	3¾	-1 (0)	0 (-¼)	-½ (-½)

CPI inflation ( <a href="#">ab</a> )							
Average weekly earnings ( <a href="#">ac</a> )	4¼	2¼	4¾	6	5 (4)	3½ (2¼)	2½ (1½)
Unit labour costs ( <a href="#">ad</a> )	3	1¼	5¼	6	4¼ (4)	3 (2)	1½ (¾)
Private sector regular pay based unit wage costs ( <a href="#">ae</a> )	1¾	1½	3¾	8¼	6¾ (7¾)	3½ (2¼)	2¼ (1¼)

Sources: Bank of England, Bloomberg Finance L.P., Department for Business, Energy and Industrial Strategy, Eurostat, IMF World Economic Outlook (WEO), National Bureau of Statistics of China, ONS, US Bureau of Economic Analysis and Bank calculations.

- (a) The profiles in this table should be viewed as broadly consistent with the MPC's projections for GDP growth, CPI inflation and unemployment (as presented in the fan charts).
- (b) Figures show annual average growth rates unless otherwise stated. Figures in parentheses show the corresponding projections in the February 2023 Monetary Policy Report. Calculations for back data based on ONS data are shown using ONS series identifiers.
- (c) Chained-volume measure. Constructed using real GDP growth rates of 188 countries weighted according to their shares in UK exports.
- (d) Chained-volume measure. Constructed using real GDP growth rates of 189 countries weighted according to their shares in world GDP using the IMF's purchasing power parity (PPP) weights.
- (e) Chained-volume measure. Forecast was finalised before the release of the preliminary flash estimate of euro-area GDP for Q1, so that has not been incorporated.
- (f) Chained-volume measure. Forecast was finalised before the release of the advance estimate of US GDP for Q1, so that has not been incorporated.
- (g) Chained-volume measure. Constructed using real GDP growth rates of 155 emerging market economy countries, as defined by the IMF WEO, weighted according to their relative shares in world GDP using the IMF's PPP weights.
- (h) Chained-volume measure.
- (i) Excludes the backcast for GDP.
- (j) Chained-volume measure. Includes non-profit institutions serving households. Based on ABR+HAYO.
- (k) Chained-volume measure. Based on GAN8.
- (l) Chained-volume measure. Whole-economy measure. Includes new dwellings, improvements and spending on services associated with the sale and purchase of property. Based on DFEG+L635+L637.
- (m) Chained-volume measure. The historical data exclude the impact of missing trader intra-community (MTIC) fraud. Since 1998 based on IKBK-OFNN/(BOKH/BQKO). Prior to 1998 based on IKBK.
- (n) Chained-volume measure. The historical data exclude the impact of MTIC fraud. Since 1998 based on IKBL-OFNN/(BOKH/BQKO). Prior to 1998 based on IKBL.
- (o) Chained-volume measure. Exports less imports.
- (p) Wages and salaries plus mixed income and general government benefits less income taxes and employees' National Insurance contributions, deflated by the consumer expenditure deflator. Based on [ROYJ+ROYH-(RPHS+AIIV-CUCT)+GZVX]/[(ABJQ+HAYE)/(ABJR+HAYO)]. The backdata for this series are available at [Monetary Policy Report – Download the chart slides and data – May 2023](#).

- (q) Total available household resources, deflated by the consumer expenditure deflator. Based on  $[RPQK/((ABJQ+HAYE)/(ABJR+HAYO))]$ .
- (r) Annual average. Percentage of total available household resources. Based on NRJS.
- (s) Level in Q4. Percentage point spread over reference rates. Based on a weighted average of household and corporate loan and deposit spreads over appropriate risk-free rates. Indexed to equal zero in 2007 Q3.
- (t) Annual average. Per cent of potential GDP. A negative figure implies output is below potential and a positive figure that it is above.
- (u) GDP per hour worked. GDP data based on the mode of the MPC's GDP backcast. Hours worked based on YBUS.
- (v) Four-quarter growth in LFS employment in Q4. Based on MGRZ.
- (w) Level in Q4. Average weekly hours worked, in main job and second job. Based on YBUS/MGRZ.
- (x) LFS unemployment rate in Q4. Based on MGSX.
- (y) Level in Q4. Percentage of the 16+ population. Based on MGWG.
- (z) Four-quarter inflation rate in Q4.
- (aa) Four-quarter inflation rate in Q4 excluding fuel and the impact of MTIC fraud.
- (ab) Contribution of fuels and lubricants and gas and electricity prices to four-quarter CPI inflation in Q4.
- (ac) Four-quarter growth in whole-economy total pay in Q4. Growth rate since 2001 based on KAB9. Prior to 2001, growth rates are based on historical estimates of Average Weekly Earnings, with ONS series identifier MD9M.
- (ad) Four-quarter growth in unit labour costs in Q4. Whole-economy total labour costs divided by GDP at constant prices. Total labour costs comprise compensation of employees and the labour share multiplied by mixed income.
- (ae) Four-quarter growth in private sector regular pay based unit wage costs in Q4. Private sector wage costs divided by private sector output at constant prices. Private sector wage costs are average weekly earnings (excluding bonuses) multiplied by private sector employment.



## Box A: Monetary policy since the February 2023 Report

At its meeting ending on 22 March 2023, the MPC voted by a majority of 7–2 to increase Bank Rate by 0.25 percentage points, to 4.25%. Two members preferred to maintain Bank Rate at 4%.

Global growth was expected to be stronger than projected in the February Monetary Policy Report, and core consumer price inflation in advanced economies had remained elevated. Wholesale gas futures and oil prices had fallen materially.

There had been large and volatile moves in global financial markets, in particular since the failure of Silicon Valley Bank and in the run-up to UBS's purchase of Credit Suisse, and reflecting market concerns about the possible broader impact of these events. Overall, government bond yields were broadly unchanged and risky asset prices were somewhat lower than at the time of the Committee's previous meeting. Bank wholesale funding costs had risen in the United Kingdom and other advanced economies.

GDP was still likely to have been broadly flat around the turn of the year, but was now expected to increase slightly in the second quarter, compared with the 0.4% decline anticipated in the February Report. As the Government's Energy Price Guarantee (EPG) would be maintained at £2,500 for three further months from April, real household disposable income could remain broadly flat in the near term, rather than falling significantly. The labour market had remained tight, while the news since the MPC's previous meeting pointed to stronger-than-expected employment growth in 2023 Q2 and a flat rather than rising unemployment rate.

Twelve-month CPI inflation fell from 10.5% in December to 10.1% in January but then rose to 10.4% in February, 0.6 percentage points higher than expected in the February Report. Services CPI inflation was 6.6% in February, 0.1 percentage points weaker than expected at the time of the February Report, but food and core goods price inflation had been significantly stronger than projected. Most of the surprising strength in the core goods component was accounted for by higher clothing and footwear prices, which tend to be volatile and could therefore prove less persistent. Annual private sector regular earnings growth had eased, to 7% in the three months to January, 0.1 percentage points below the expectation in February.

CPI inflation was still expected to fall significantly in 2023 Q2, to a lower rate than anticipated in the February Report. This lower-than-expected rate was largely due to the near-term news in the Budget including on the EPG, alongside the falls in wholesale energy prices. Services CPI inflation was expected to remain broadly unchanged in the near term, but wage growth was likely to fall back somewhat more quickly than projected in the February Report.

The extent to which domestic inflationary pressures ease would depend on the evolution of the economy, including the impact of the significant increases in Bank Rate so far. Uncertainties around the financial and economic outlook had risen.

The MPC would continue to monitor closely indications of persistent inflationary pressures, including the tightness of labour market conditions and the behaviour of wage growth and services inflation. If there were to be evidence of more persistent pressures, then further tightening in monetary policy would be required.

## 2: Current economic conditions

Headline inflation in the US and euro area has been falling in recent months, although core inflation has been more stable at elevated levels. Lower gas prices combined with reduced supply chain pressures should ease global inflationary pressures further in the near term. They should also support activity: global growth has been stronger at the start of 2023 than projected in February. Bank failures have nonetheless resulted in asset price volatility since the February Report. Spreads on UK banks' wholesale funding rose but then fell back. The overall impact on domestic credit conditions is expected to be small.

UK GDP is expected to be broadly flat over 2023 H1 from the level in 2022. Once factors such as strikes in the health and education sectors and an additional bank holiday have been excluded from the headline numbers, the underlying picture is more positive and stronger than expected in February. One driver of this improvement is a further fall in wholesale gas futures prices, reversing some of the terms of trade shock that has been the primary cause of falling real incomes and slow consumption growth. Part of the improvement may also reflect the strength of the labour market. Employment growth has been stronger than projected in February.

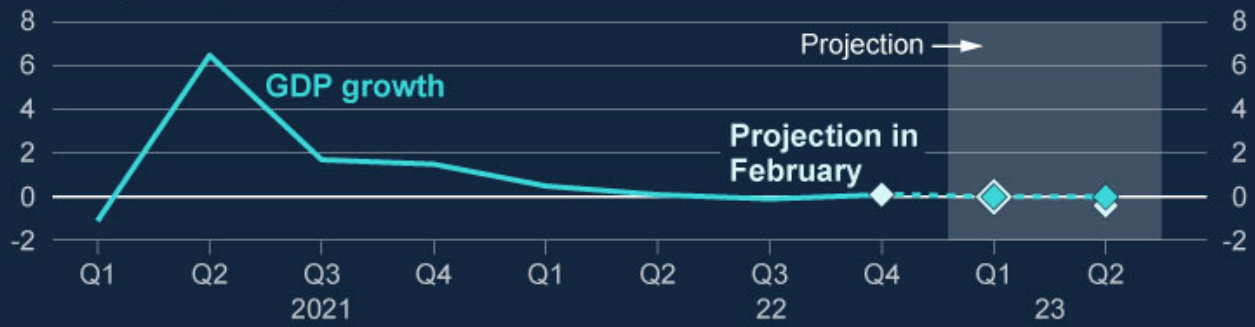
Four-quarter CPI inflation remained high at 10.2% in 2023 Q1, well above the 2% target. That was higher than projected in February, largely accounted for by higher food and other goods price inflation. Inflation is expected to fall sharply to 8.4% in April and then fall further to around 7% by July. That fall predominantly reflects past increases in energy and other goods prices dropping out of the annual comparison, and lower household energy bills from July due to falling wholesale gas futures prices. The contribution of gas and electricity prices to CPI inflation is projected to fall from 3.1 percentage points in March 2023 to 0.5 percentage points in July. A broader slowing in the pace of manufacturing output price rises should also help reduce goods price inflation. However, the latest evidence suggests food price inflation is likely to remain elevated for longer than previously expected, partly because lower producer costs are projected to pass through to consumer prices more slowly than for other goods.

**Chart 2.1: GDP and the unemployment rate are expected to be broadly flat in 2023 H1 but inflation is expected to fall sharply**

Near-term projections (a)

**2023 Q1: 0.0%**    **2023 Q2: 0.0%**

Percentage change on a quarter earlier



**2023 Q1: 3.8%**    **2023 Q2: 3.8%**

Per cent



**2023 Q1: 10.2%**    **2023 Q2: 8.2%**

Per cent



Sources: ONS and Bank calculations.

(a) The lighter diamonds show Bank staff's projections at the time of the February 2023 Monetary Policy Report. The darker diamonds show Bank staff's current projections. Projections for GDP growth and the unemployment rate are

quarterly and show 2023 Q1 and 2023 Q2 (February projections show Q4 to Q2). Projections for CPI inflation are monthly and show April to June 2023 (February projections show January to June 2023). GDP growth and unemployment rate 2023 Q1 projections are based on official data to February, the CPI inflation figure is an outturn.

## 2.1: Global economy and financial markets

### **Global growth has been stronger in early 2023 than expected in the February Report.**

UK-weighted world GDP is expected to have grown by 0.6% in 2023 Q1, 0.6 percentage points stronger than expected in the February Report. This outperformance has been broad-based and Bank staff expect all of the UK's main trading partners to have performed more strongly than previously forecast. Staff expect world GDP growth in 2023 Q2 to be around 0.4%, slightly stronger than the February Report. Nevertheless, while global growth has been more resilient than expected, it is still subdued. Four-quarter growth in 2023 Q2 is expected to be 1.9%, a little below its average rate over 2010–19 of 2.1%.

Euro-area GDP grew by 0.1% in 2023 Q1 according to the preliminary flash release, stronger than the decline expected in the February Report. The economy has been more resilient than expected to the previous sharp rise in energy prices, while stronger growth in China has supported exports. GDP growth is expected to be 0.2% in 2023 Q2.

In the United States, GDP grew by 0.3% in 2023 Q1 which was also stronger than expected in the February Report. This outperformance was more than accounted for by household consumption, which has been supported by both strength in the labour market and increased income tax thresholds that came into effect in January. Staff expect GDP growth to slow to 0.1% in 2023 Q2, as tighter credit conditions and the effects of tighter monetary policy weigh on activity.

In China, GDP grew by 2.2% in 2023 Q1, much stronger than the contraction expected in the February Report. The wave of Covid cases that followed the lifting of restrictions has dissipated faster than expected, and the resulting impact on activity has been smaller. GDP is expected to grow by 1.1% in 2023 Q2, led by services activity and consumption growth.

### **Wholesale gas prices have fallen since February...**

Since the February Report, gas prices have fallen further. European wholesale spot gas prices, as indicated by the Dutch Title Transfer Facility price, have fallen by nearly 40% to €40 per MWh (Chart 2.2). This leaves spot gas prices below the level seen before Russia's invasion of Ukraine in February 2022, although still over three times above their

average level in 2020. The gas futures curve has also moved lower as milder weather, reduced energy consumption and fuel switching have bolstered storage levels. In the UK, wholesale gas prices have also moved lower in line with continental European prices.

Brent crude oil spot prices fell in the days following the failure of Silicon Valley Bank as fears of economic disruption and reduced demand weighed on prices. Oil prices are now broadly unchanged from their February levels. Among non-energy commodities, agricultural goods prices have risen slightly since February while industrial metals prices are around 6% lower.

### Chart 2.2: Gas prices have declined since the February Report

International wholesale gas spot and futures prices (a)



Sources: Bloomberg Finance L.P. and Bank calculations.

(a) The Dutch Title Transfer Facility pricing point is used for the European price. UK prices have been converted to euros. Dashed lines refer to the 15-day average to 24 January 2023. Dotted lines refer to the 15-day average to 28 April 2023.

### ...and supply-chain pressures continue to ease.

Measures of global supply chain pressures have continued to ease since February (Chart 2.3), aided by the reopening of the Chinese economy. Measures of shipping costs have fallen significantly and are now around pre-pandemic levels. These developments suggest that the marked decline in world export price inflation over the course of 2023 that was projected in the February Report is broadly on track.



### Chart 2.3: Supply chain constraints have continued to ease

Indicators of supply constraints (a)



Sources: Refinitiv Eikon from LSEG, S&P Global/CIPS and Bank calculations.

(a) Indicators are estimated by Bank staff using principal component analysis on a range of PMIs for supply constraints in the manufacturing sector (supplier delivery times, stocks of purchases, stocks of finished goods, input prices and backlogs of work). Before principal components are estimated, these indicators are regressed on the new orders PMI to control for movements in demand. Latest data for the Global and China series are for March 2023, and April 2023 for the US and the euro-area series.

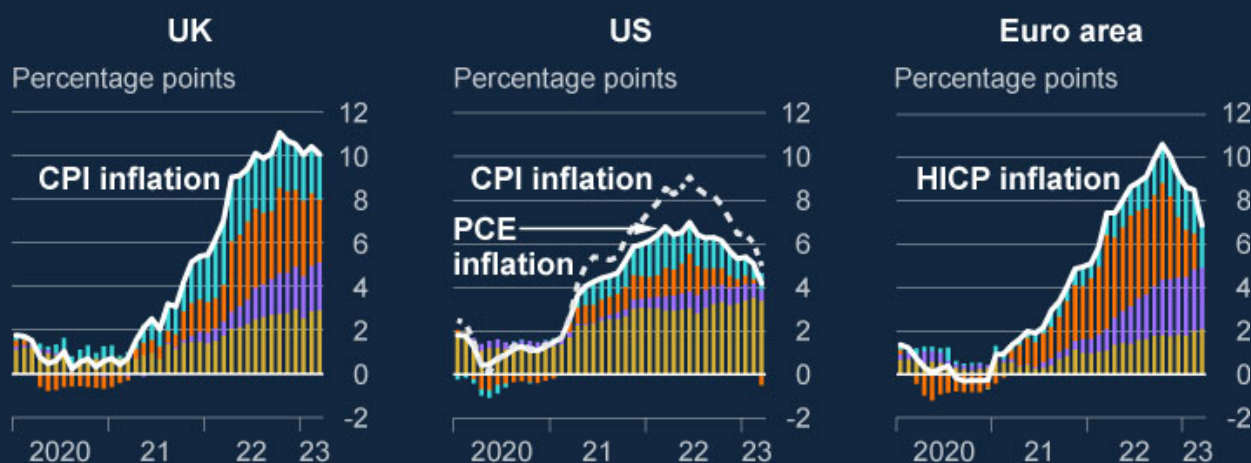
### Headline inflation has been falling in the US and euro area...

Headline inflation has continued to decline in the euro area and the United States (Chart 2.4). In the euro area, HICP inflation had declined for five consecutive months to March, taking it to 6.9%, and the flash estimate for April was broadly unchanged at 7.0%. Energy price increases in the euro area last year were earlier than in the UK, and as a result, base effects have weighed on euro-area inflation earlier than in the UK. Base effects from energy prices will pull down UK CPI inflation in April (Section 2.4). In the US, headline PCE inflation, on which the Federal Reserve focuses, declined to 4.2% in March, from 5.1% in February. Recent falls have also been driven primarily by lower contributions from energy and core goods prices, with the contribution from energy turning negative in the latest release for the first time since early 2021. CPI inflation in the US has also been declining in recent months and stood at 5.0% in March.

### Chart 2.4: Inflation has fallen in the US and euro area in recent months

Contributions to annual consumer price inflation (a)

■ Other goods    ■ Food and non-alcoholic beverages  
■ Energy        ■ Services



Sources: Eurostat, ONS, Refinitiv Eikon from LSEG, US Bureau of Economic Analysis, US Bureau of Labor Statistics and Bank calculations.

(a) Energy includes fuel and household energy bills. Other goods is the difference between overall inflation and the other contributions identified on the chart, and therefore includes alcohol and tobacco. The latest data are March 2023 outturns.

#### ...although core inflation has been slower to decline.

Core inflation, which excludes food and energy prices, has been more stable in the US and has risen in the euro area recently. Services inflation remains strong in both regions (Chart 2.4). As with UK services inflation (Section 3), this strength will partly reflect the indirect effects of higher input costs such as energy, particularly in the euro area. But given that wage bills are a large share of costs for service sector firms, another likely driver of services price inflation is the tightness of labour markets. Unemployment rates in the US and euro area are still very low by historical standards. Similarly, the ratio of vacancies to the number of unemployed people remains close to record highs in both economies. Wage growth in both regions has remained higher than respective pre-crisis averages, although it has been easing in the US.

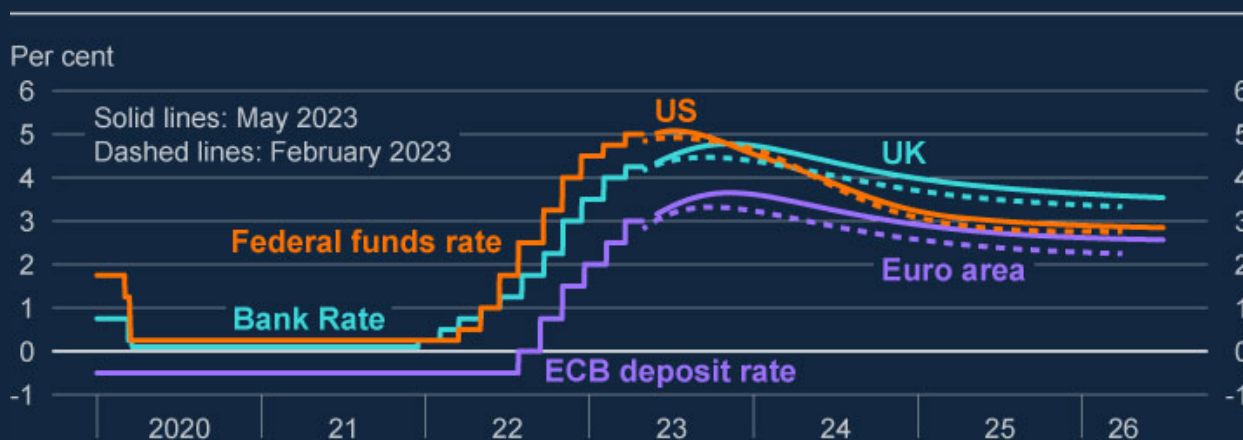


## Central banks have continued to tighten policy since the February Report...

In the US, the FOMC increased the target range for the federal funds rate by 25 basis points to 5.0%–5.25% at its meeting ending on 3 May, following a 25 basis point increase in March. At its meeting ending on 4 May, the ECB Governing Council raised its key policy rates by 25 basis points, which leaves the deposit rate at 3.25%. Both central banks stated that they would continue to judge the appropriateness of monetary policy depending on incoming data and its implications for the economic outlook.

**Chart 2.5: Market participants think that policy rates are nearing their peaks**

International forward interest rates (a)



Sources: Bloomberg Finance L.P. and Bank calculations.

(a) All data as of 28 April 2023. The February curves are estimated based on the 15 working days to 24 January 2023. The May curves are estimated using the 15 working days to 28 April 2023. Federal funds rate is the upper bound of the target range.

## ...but market participants' policy rate expectations moderated after some banks failed in early March.

Until early March, positive news on global growth had contributed to increased market-based expectations of future policy rates. Subsequently, Silicon Valley Bank (SVB), the 16th largest US bank, failed following a rapid and very large withdrawal of uninsured deposits. As a result, the Bank of England placed SVB's UK subsidiary into resolution proceedings. Another smaller US bank, Signature Bank, failed and some other regional banks in the US came under stress. Elsewhere, Credit Suisse experienced intensified liquidity stress and client outflows during March. These ultimately led to an agreed

takeover by UBS, following an intervention by the Swiss authorities. The implications of these events for the UK financial system are discussed in the FPC's [Summary and Record March 2023](#).

Investors' concerns that these developments would lead to tighter credit conditions and weaker economic activity contributed to lower expectations for the path of policy rates. These concerns have since receded such that market expectations for the near-term path of policy rates in the United States are now broadly unchanged compared to the February Report (Chart 2.5). In the UK and euro area, the expected path for policy rates has moved a little higher again, such that markets now expect rates to peak around 30 basis points higher this year than they did in February. Across the three regions, policy rates are expected to fall from the end of 2023 onwards, albeit more strongly in the US than the euro area or UK. Expectations for policy rates at the three-year horizon are a little higher compared to the February Report.

Similar to these movements at the shorter-end of the yield curve, 10-year government bond yields in the US, UK and euro area rose following the February Report, and then fell back such that they are now broadly unchanged in the US and 15–25 basis points higher in the UK and euro area.

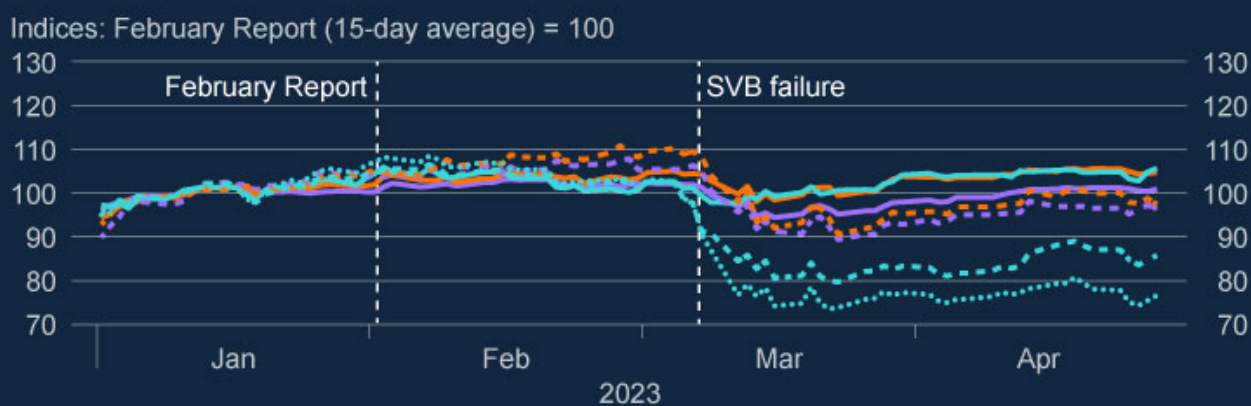
### **Asset prices have been volatile since the February Report, falling sharply before recovering.**

Bank failures led to a fall in global equity prices in March. The FTSE All-Share index and Euro Stoxx each fell by around 5% (Chart 2.6). Equity prices have since recovered such that the FTSE All-Share is broadly unchanged since the February Report, while the S&P 500 and Euro Stoxx indices are around 5% higher. Following initial falls around the time of SVB's failure, banking sector equity prices in the euro area and UK have recovered somewhat. The equity prices of US banks have seen much larger declines and remain well below February levels, with very large falls among smaller regional banks where investor concerns have been concentrated.

### Chart 2.6: Global equity prices fell following the failure of SVB, but have since recovered. But banking stocks, in particular in the US, remain lower

International equity prices and banking sector indices (a)

— S&P 500    ···· US regional banks    — Euro Stoxx    — FTSE All-Share  
 ···· US banks    ···· Europe banks    ···· UK banks



Sources: Bloomberg Finance L.P., Refinitiv Eikon from LSEG and Bank calculations.

(a) Daily data to 28 April 2023. The banking sector series for the UK, Europe and US are: FTSE UK Banks Index, the Stoxx Europe 600 Banks, S&P 500 Banks and the KBW Regional Banking Index.

Following a temporary increase, spreads on aggregate investment-grade and high-yield corporate debt in the US and euro area are now little changed since the February Report. Moves in UK corporate spreads have been similar (Section 2.2).

## 2.2: Domestic credit conditions

**The increase in spreads on UK banks' wholesale funding was short-lived, implying little impact on the interest rates facing households and companies.**

Banks rely on several sources of funding; in addition to taking deposits from households and firms, they also borrow from wholesale funding markets. In the UK, banks' reliance on wholesale funding has fallen since the 2008 financial crisis. Nonetheless, wholesale funding remains a key source of funding, and does influence the interest rates banks charge on loans to households and companies (see Box 1 of the [February 2019 Report](#)).

Spreads on UK banks' wholesale funding rose sharply in the wake of the SVB failure but have retraced in the past few weeks (Chart 2.7). Spreads on senior unsecured bonds have retraced most of the increase seen after the failure of SVB. Spreads on other sources of wholesale funding, such as covered bonds, have risen slightly. Since wholesale

funding costs would need to rise for an extended period of time to have an impact on the interest rates facing households and companies, this recent episode of volatility in domestic bank funding costs is unlikely to exert upward pressure on retail rates.

In terms of retail deposit funding, rates on time deposits have been rising by more than for instant access accounts (Box B). In response, there has been a shift in deposit volumes from instant access accounts to time deposits over the past six months. While annual growth in household and corporate deposit volumes has slowed, growth has been much more stable than for firms in the financial sector.

### Chart 2.7: UK wholesale funding spreads rose sharply after the failure of SVB, but have since fallen back

UK banks' indicative funding spreads (a)



Sources: Bloomberg Finance L.P. and Bank calculations.

(a) Constant-maturity weighted average of secondary market spreads to mid-swaps for the major UK lenders' five-year bonds or a suitable proxy when unavailable. Holding company bonds and covered bonds are denominated in US dollars and euros respectively. For more detail on unsecured bonds issued by operating and holding companies, see the [2017 Q3 Credit Conditions Review](#). Latest data points are 28 April 2023.

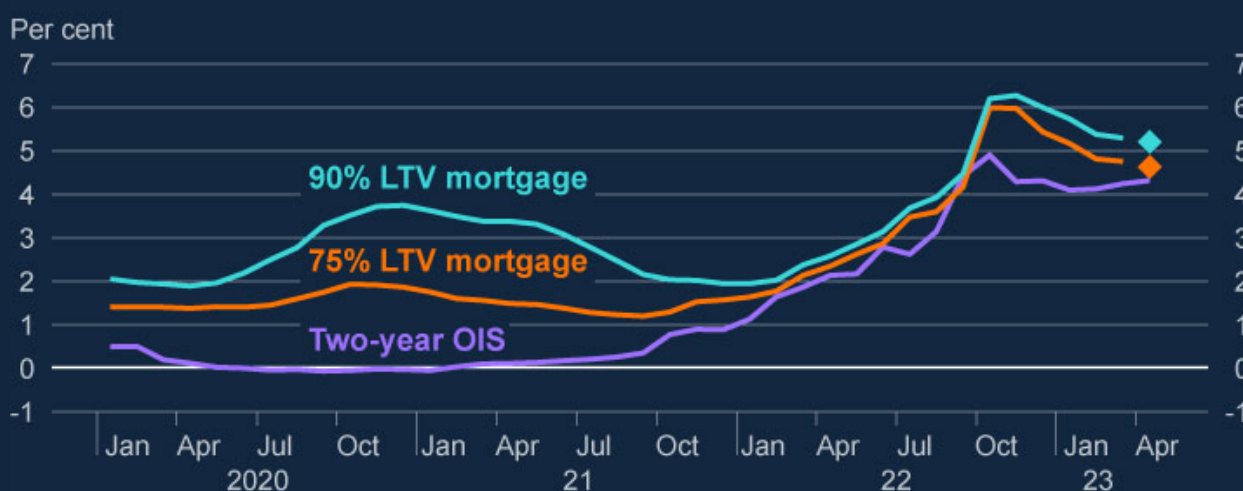
### | Mortgage rates have declined a little since the February Report.

There has been a further reduction in UK owner-occupied fixed-term mortgage rates since the MPC's previous meeting and the February Report. The average quoted rate on a two-year fixed-rate 75% loan to value mortgage fell slightly in March and these rates have fallen by a further 13 basis points in April, to just over 4.6%.

Despite declining in recent months, mortgage rates are still much higher than they were a year ago. This factor, combined with broader weakness in real incomes (Chart 2.12), continues to weigh on house prices. The official UK House Price Index has now declined for three consecutive months, with annual house price inflation falling to 5.5% in February. Timelier indicators of house prices, which also capture prices at earlier stages of the house buying process, have been mixed but suggest that prices have fallen further since then. There have been signs that housing market activity has picked up recently – mortgage approvals rose in March to their highest level since October 2022 – and contacts of the Bank’s Agents expect house prices to stabilise.

**Chart 2.8: Mortgage rates have fallen slightly further since the February Report**

Average quoted rates on two-year fixed-rate mortgages and two-year OIS rate (a)



Sources: Bloomberg Finance L.P., Moneyfacts.co.uk and Bank calculations.

(a) The Bank’s quoted rates series are weighted monthly average rates advertised by all UK banks and building societies with products meeting the specific criteria. In March 2019 the method used to calculate these data was changed. For more information, see [Introduction of new Quoted Rates data – Bankstats article](#). Diamonds for mortgage products represent averages of daily quoted rates using data to 28 April and were provisional. The final data were published on 9 May.

### **Banks expect to tighten the availability of household secured credit in Q2.**

The latest [Credit Conditions Survey \(CCS\)](#) was conducted between 27 February and 17 March. As a result, the impact of SVB’s failure on 10 March and the subsequent banking sector stress may not be fully captured in its results. Banks reported that the availability of secured credit to households was unchanged on the quarter, but lenders expect

availability to decrease over the next three months. Among the reasons banks cited for this were the weaker economic outlook, reduced risk appetite and expectations for house prices.

**Credit availability appears little changed for corporates. The cost of borrowing has risen since the February Report.**

Respondents to the CCS reported little change in corporate credit availability over the previous three months and expected this to remain the case over the next three months. The Deloitte CFO survey, which was conducted after the failure of SVB, also suggests that credit availability for large firms is little changed. The Bank's Agents suggest that SME credit availability remains tight.

The cost of bank lending to corporates has risen in recent months: average rates on new debt for PNFCs rose by nearly 60 basis points in February, to 5.8%, and remained broadly stable in March. The cost of borrowing from corporate bond markets has also increased since February, with risk-free rates up and spreads on both investment-grade and high-yield debt a little higher.

## **2.3: Demand, output and the labour market**

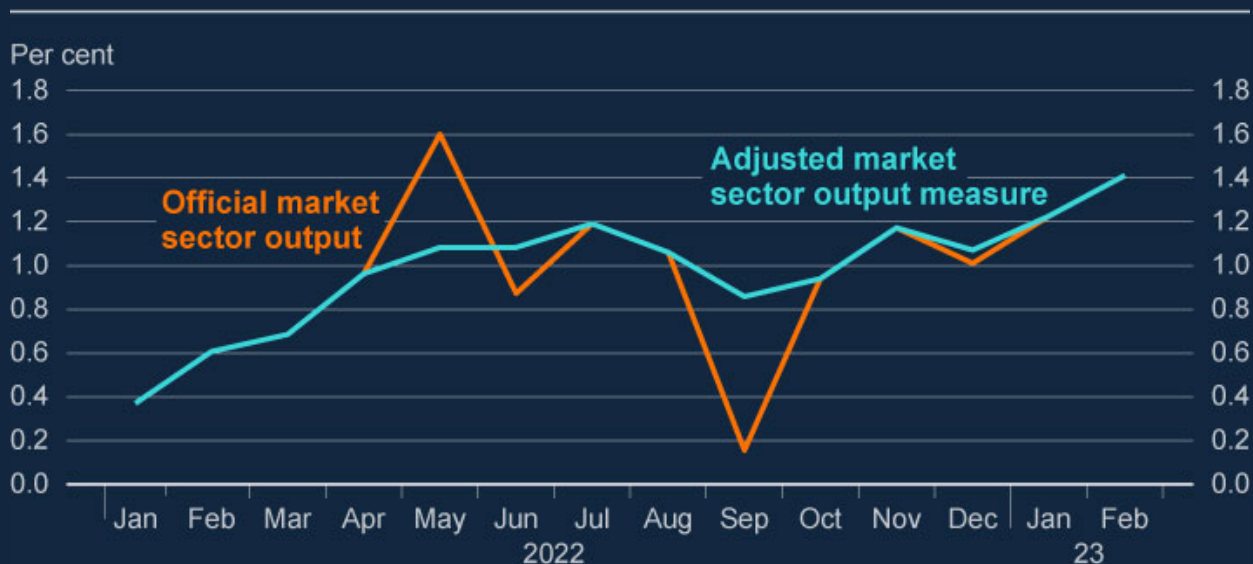
**Economic activity was broadly flat in the latter half of 2022.**

Monthly GDP outturns have been volatile since the middle of 2022 (the orange line in Chart 2.9 shows this volatility for market sector output). This reflects the impact of a combination of factors: additional bank holidays for the Platinum Jubilee and the Queen's state funeral; strike action; and unusually high levels of sickness during the winter. Smoothing through this volatility, economic activity is estimated to have been broadly flat in the second half of 2022 (the aqua line in Chart 2.9).



### Chart 2.9: GDP, adjusted for temporary factors, was flat in 2022 H2, but has picked up in early 2023

Change in UK market sector GDP since 2019 Q4 (a)



Sources: ONS and Bank calculations.

(a) Market sector output is total GDP excluding public sector output. The adjusted measure removes Bank staff estimated impacts of the Platinum Jubilee, the Queen's state funeral, and strike action.

**Headline GDP is projected to be broadly flat in the first half of 2023 but, adjusting for temporary factors, growth is slightly positive and stronger than projected in the February Report.**

GDP is expected to be flat in 2023 Q1 and Q2 (Chart 2.1). This is partly driven by further strikes and the additional bank holiday in May for the King's coronation.

Adjusting for these temporary factors, underlying growth is expected to be higher than headline GDP growth. It is projected to be roughly 0.2% per quarter in 2023 Q1 and Q2. This is low compared to historical average growth rates, but in Q2 it is around half a percentage point stronger than projected in February.

Business surveys such as the S&P Global/CIPS UK composite PMI have improved compared to levels seen at the end of last year (Chart 2.10). These measures point to low but positive underlying growth in 2023 Q2. The most forward-looking measure in this survey, the future output index, has improved more than other measures and is now above its long-term average level.

## Chart 2.10: Business surveys suggest the outlook for growth has improved

Survey indicators of UK output growth (a)



Sources: S&P Global/CIPS and Bank calculations.

(a) Measures of current monthly UK composite (services and manufacturing) output, new orders and future output. All data series are mean-adjusted: zero represents the average level for that measure between 1998 and 2023 (for the future output series this is done between July 2012 and 2023). The series are also adjusted to show the distance from average level based on historic variation in the series over the same period. The latest data points are flash estimates for April 2023; the final release of these data was more positive, suggesting faster economic growth than represented in this chart.

### One driver of faster-than-expected growth is lower energy prices, which have reduced some firms' costs and may have reduced uncertainty...

Since the February Report, wholesale gas futures prices have fallen by around 20% on average over the next two years (Chart 2.2). This will directly reduce energy costs for some businesses, and may indirectly reduce other input costs along the supply chain. Some other input costs have also fallen since February, for example some other commodity prices, as well as easing supply constraints. In the latest Decision Maker Panel (DMP) Survey, firms have revised down their expectations for cost growth over the coming year, which may encourage business spending now. That said, some businesses will not have felt the benefit of lower wholesale prices yet, as they will be on fixed contracts set when wholesale costs were particularly high.

Lower energy prices may also have reduced uncertainty. In the DMP, more than a quarter of firms reported that their overall level of uncertainty was very high in October 2022. That has fallen to around 10% in the latest data, with the survey suggesting that this is at least partly due to reduced uncertainty about future prices (Chart 2.11). That could reflect a



lower risk of another spike in energy prices. Measures of European gas storage utilisation show that levels post-winter are at or close to their high point from recent years, and that means it will be easier to reach full storage ahead of next winter.

### Chart 2.11: Businesses are reporting lower uncertainty about price growth

Firms' uncertainty about sales and price growth (a)



Sources: DMP Survey and Bank calculations.

(a) The indices for sales and price growth uncertainty are three-month moving averages based on the average standard deviation in firms' own expectations for sales and prices respectively – 100 represents the average level in 2019. Data are weighted by industry and firm size to match the population of UK firms with at least 10 employees. The latest data points are for March 2023. Sales growth and price growth series are based on responses to the respective questions: 'Looking a year ahead from the first/second/third/fourth quarter of this year to the first/second/third/fourth quarter of next year, by what percentage do you expect your sales revenue to have changed in each of the following scenarios: lowest, low, middle, high and highest?' and 'Looking ahead, from now to 12 months from now, what approximate percentage change in your average price would you expect in each of the following scenarios: lowest, low, middle, high and highest?', and respondents were then asked to assign a probability to each scenario.

### | ...and boosted households' real incomes.

Households' energy bills in Q2 will be lower than projected in the February Report, boosting real incomes. On 15 March 2023, the Government announced that the Energy Price Guarantee (EPG) would be kept at £2,500 per year, as calculated for a typical household's energy usage, for an additional three months, until the end of June 2023. The MPC's projections in February had been conditioned on Government policy at the time, which was for the EPG to rise to £3,000 per year in April.

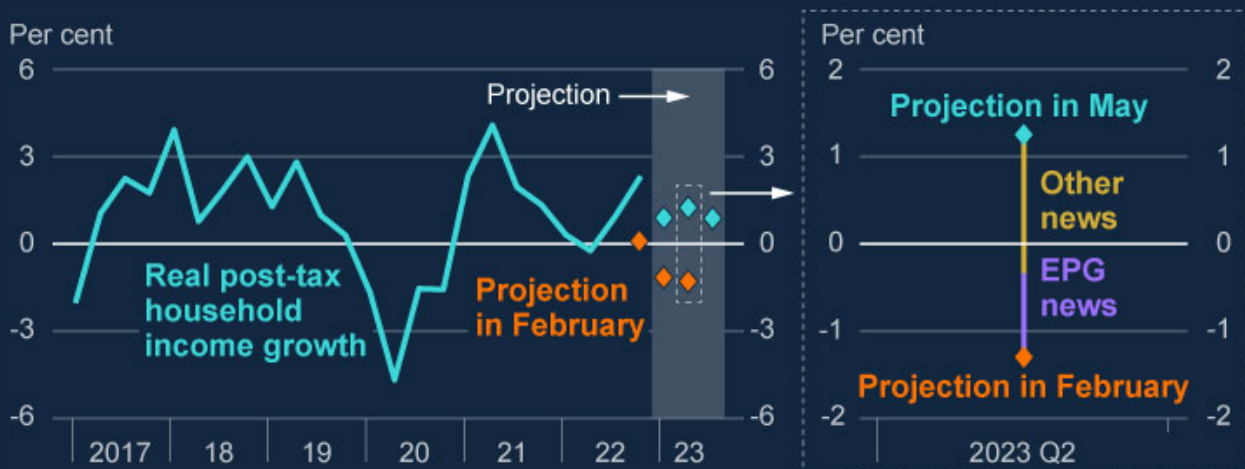
The right panel of Chart 2.12 shows the estimated impact of the direct effect of the reduction in the EPG on the four-quarter growth rate of real household incomes in 2023 Q2. The lower EPG will boost real incomes by around one percentage point, as shown by the purple line. From 2023 Q3 onwards, the EPG will no longer be the price households

pay for energy, as the Ofgem price cap is very likely to fall below this level (discussed further in Section 2.4). The price cap is based primarily on wholesale energy costs, which have fallen further since the February Report, representing a further boost to real income growth.

The boost from the lower EPG is not the only factor pushing up the real income forecast, as shown by the gold line in Chart 2.12. One key contributor to the increase is stronger growth in household labour income, partially driven by higher employment levels. It also partly reflects a strong outturn in household income in 2022 Q4, driven by a range of factors including a higher than anticipated level of fiscal transfers.

**Chart 2.12: Higher nominal income growth in 2022 Q4 and lower energy prices mean real household incomes are no longer expected to fall in 2023**

Four-quarter real household income growth (a)



Sources: ONS and Bank calculations.

(a) Diamonds show Bank staff projections. The orange diamonds show projections from the February Report for 2022 Q4, 2023 Q1 and Q2. The aqua diamonds show the latest projections for 2023 Q1, Q2 and Q3. Income includes non-profit institutions serving households. See footnote (q) in Table 1.D for the definition of real post-tax household income.

Higher household incomes are expected to support stronger consumption growth over 2023 than had been projected in February. Nonetheless, spending growth remains weak in an absolute sense: consumption remained below pre-pandemic levels in 2022 Q4 and the projected growth rates in 2023 are modest by historical standards.

**But lower energy prices may not explain all of the upward revision to the growth forecast.**

It is difficult to estimate precisely the contribution that falling energy prices have made to the somewhat brighter economic picture but there is some evidence that it is not the only explanation. Some data were improving prior to the EPG announcement in March. For example, real income growth in 2022 Q4 materially exceeded the February Report projection, with upside news of more than 2 percentage points (left chart in Chart 2.12). Consumer confidence has been improving since September 2022 (Chart 2.13). Evidence from the latest NMG survey suggests that workers' perceptions of job security have improved and are now the most secure since the survey began in 2015 (Box B). The MPC judged in February that additional resilience in the labour market was likely to result in lower precautionary saving and stronger consumption than would otherwise be the case. Some of the latest upside news in near-term GDP could be consistent with such a channel operating to a greater degree than anticipated.

**Chart 2.13: Consumer confidence has improved but remains low**

UK consumer confidence (a)

Differences from averages (number of standard deviations)



Sources: GfK, Refinitiv Eikon from LSEG and Bank calculations.

(a) GfK Consumer Confidence Index is based on the net balances of respondents reporting how their personal financial situation and the general economic situation have improved over the past 12 months or how the situations are expected to change in the next 12 months. The orange line shows one of the five sub-indices that make up the overall measure. Averages calculated over 1996 to 2023. Latest data points are for April 2023. Data are not seasonally adjusted.

### Positive underlying GDP growth has been accompanied by stronger employment growth.

Consistent with stronger output growth, employment growth has been positive in recent months. The number of people employed grew by 0.5% in the three months to February, somewhat higher than previous outturns (Chart 2.14). Most business surveys point to

further employment growth in the near term, although the relationship between these surveys and the official data is not always close. Employment growth is expected to be around 0.2% in 2023 Q2, higher than projected in the February Report.

**Chart 2.14: Employment growth has been positive, and surveys of employment intentions point to further growth in the near term**

Measures of employment growth (a)



Sources: Bank of England Agents, KPMG/REC/S&P Global UK Report on Jobs, Lloyds Business Barometer, ONS, S&P Global/CIPS and Bank calculations.

(a) ONS employment growth is the change in headline employment level for people aged 16+ over the value three months earlier. The PAYE employees growth series is the three-month change in the monthly number of PAYE employees. Indicators include surveys from: the Bank's Agents (employment intentions over the next six months); KPMG/REC/S&P Global (index of demand for staff); Lloyds Business Barometer (balance of higher staffing levels over next 12 months); and S&P Global/CIPS (PMI composite employment index). Surveys are taken from a range of sources with varying samples and questions but have been mean and variance adjusted to match the ONS employment growth series between 2000 and 2019, and are therefore shown consistent with the three-month on three-month growth rate.

### **| Labour demand may have strengthened somewhat...**

Stronger employment growth suggests labour demand may have strengthened a little. This is reflected in the levelling-off of job vacancies, which have been falling since reaching a record high in mid-2022 (Chart 2.15). Somewhat stronger labour demand suggests that unemployment will be lower than previously expected. The unemployment rate is now projected to be 3.8% in 2023 Q2, compared to the 4.1% forecast at the time of the February Report (Chart 2.1).

**Chart 2.15: The number of vacancies has fallen but the pace of decline has slowed**

Vacancies (a)



(a) The aqua line shows the ONS's headline vacancy measure which is a moving three-month average, aligned to the middle month. The orange line is the more volatile single month measure, which is not designated a national statistic and is not seasonally adjusted. The last data points are the three months to March 2023 and March 2023 respectively.

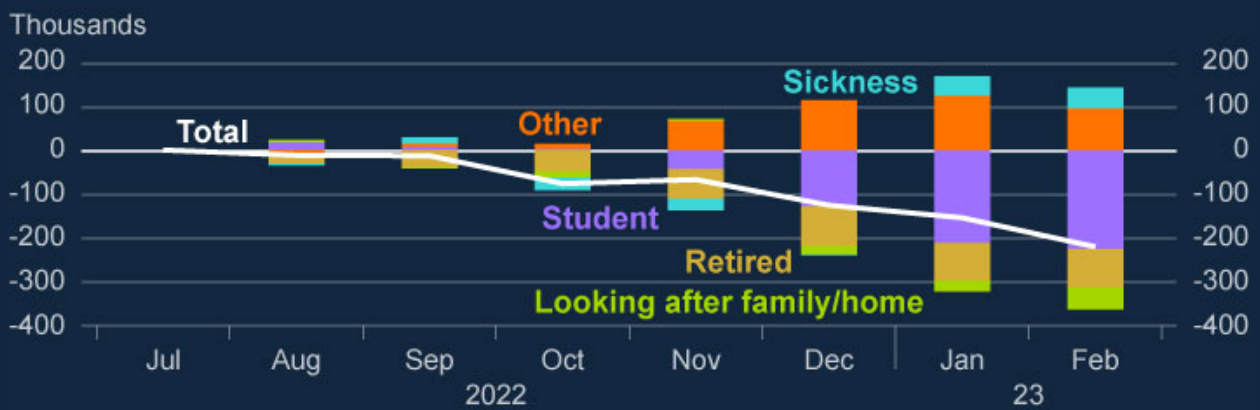
**...although some of the additional employment growth could reflect somewhat faster labour supply growth.**

During the pandemic, the number of working-age people who were outside the labour force, for example due to being in education or sick, rose significantly (see Section 3 in the [February 2023 Report](#)). Between the end of 2019 and July 2022, the size of this group rose by around 800,000 people. But there are tentative signs that some drivers of this trend are now reversing. Since that peak, there are over 200,000 fewer working-age people outside the labour force (white line in Chart 2.16). A larger labour force means that supply in the economy increases and allows firms to hire more workers, raising overall employment levels, without contributing to faster wage growth. This may explain why companies report an easing in recruitment difficulties, even as demand may be increasing (see Section 3 for further discussion of labour market tightness).

The recent trend has been driven primarily by students (purple bars in Chart 2.16). That may reflect an unwinding of the increase during the pandemic, as well as the impact of the cost of living squeeze. During the pandemic, more young people chose to enter education rather than enter the labour market at a time when jobs were scarce. Increasingly, that cohort will reach the end of their courses and rejoin the labour market. In addition, there is evidence that some university students are choosing to work or work longer hours in order to cope with increased living costs ([The Sutton Trust \(2023\)](#)). Overall labour participation rates for younger groups are back to levels seen in 2019.

### Chart 2.16: The trend of fewer working-age people being outside the labour force since mid-2022 has mostly been driven by students

Change in inactivity since July 2022 by reason (a)



Sources: ONS and Bank calculations.

(a) Changes from the three months to July 2022, based on those aged 16–64. Other reasons include: discouraged workers; those awaiting the results of a job application; have not yet started looking for work; do not need or want employment; have given an uncategorised reason; or have not given a reason. Sickness includes both those long-term and temporarily sick.

There are also some tentative signs of a rise in participation from older workers (for example in the gold bars in Chart 2.16). The latest Labour Force Survey data on labour market flows showed a significant increase in the share of 50–64 year olds who were previously out of the labour market moving back into the workforce ([Sturrock and Xu \(2023\)](#)), although these data tend to be volatile and can be affected by poor sample coverage. This has also coincided with a fall in the proportion of 50–64 year olds reporting that they did not expect to work again, from around 69% in 2021 to a little over 66% in 2022 Q4. In contrast, the increased prevalence of people outside the labour force citing sickness as the main cause has yet to show signs of reversing.

In the longer term, labour supply is also likely to be supported by slightly faster population growth than previously expected. Population growth is now expected to be higher as the ONS have revised up their population projections. This contributes to a somewhat higher GDP level throughout the Bank's forecast period.



### **Measures in the Spring Budget 2023 should provide some support to UK GDP over the forecast period.**

The Spring Budget 2023 introduced reforms to funding for childcare, in part to encourage higher labour market participation among parents. These reforms will take several years to implement. There are large uncertainties over the total impact of the policy. Although the reforms are likely to provide some boost to the level of GDP, they are expected to have relatively little impact within the MPC's forecast period, as the full rollout takes place only in 2025–26. The OBR forecasts that the changes will increase employment by around 110,000 by 2027–28.

Other measures announced at the Spring Budget 2023 are likely to have a larger impact on GDP growth over the coming years. In particular, the Government announced a temporary change in capital allowances for business investment. For qualifying investments, 100% of the cost can be deducted from taxable income between 2023–24 and 2025–26. The impact of the policy is hard to predict but is likely to temporarily increase investment as firms are incentivised to bring forward investment plans. Using forecasts from the OBR, the policy is projected to increase the level of business investment by up to 3.5% in 2024–25 and 2025–26. Qualifying business investment is a small part of total GDP and some of the higher investment will lead to greater demand for imports so the overall impact is relatively small, raising the level of GDP by around 0.2% while in effect.

Overall, the measures in the Spring Budget 2023 are expected to increase the level of GDP by around 0.5% over coming years.

## **2.4: Prices**

### **Inflation remains well above the 2% target, although it is expected to fall materially...**

UK inflation remains well above the 2% target, and was stronger than projected in the February Report in Q1. Twelve-month CPI inflation was 10.1% in March 2023, down from the 11.1% reached in October 2022. But that was a little under 1 percentage point higher than forecast in February, with food and clothing prices accounting for most of the upside news. In contrast, the forecast for inflation in 2023 Q2 is 0.3 percentage points below the February forecast. This change in the forecast largely reflects news on energy prices and policies, specifically the Government's decision at the Spring Budget to keep the EPG at £2,500 between April and June rather than raising it to £3,000 as was previous government policy.

In the near term, CPI inflation is expected to fall sharply but remain well above the 2% target. It is expected to fall to 8.4% in April before declining further to around 7% in July 2023 (Chart 2.17). This is driven by three key factors: large price rises one year ago dropping out of the annual comparison, domestic energy prices falling, particularly from July, and a wider decline in input cost pressures.

### **...as previous large rises in energy and other goods prices drop out of the annual comparison...**

In March 2023, electricity and gas prices were contributing 3.1 percentage points to the overall annual CPI inflation rate. That contribution is expected to fall significantly in April to 1.3 percentage points and then to 0.5 percentage points in July. The fall in the energy price contribution between March and April is not driven by a fall in the price of households' energy bills. Indeed, a typical bill will remain at an annualised level of £2,500 because the EPG will be unchanged between 2023 Q1 and Q2. Rather, the change in the contribution results from the 47% rise in electricity and gas prices that occurred in April 2022 falling out of the annual comparison. These 'base effects' are not only isolated to energy prices, some goods prices also rose strongly a year ago (see Chart 2.24 of the [February 2023 Report](#)).

### **...falls in wholesale gas futures prices feed through to domestic energy bills...**

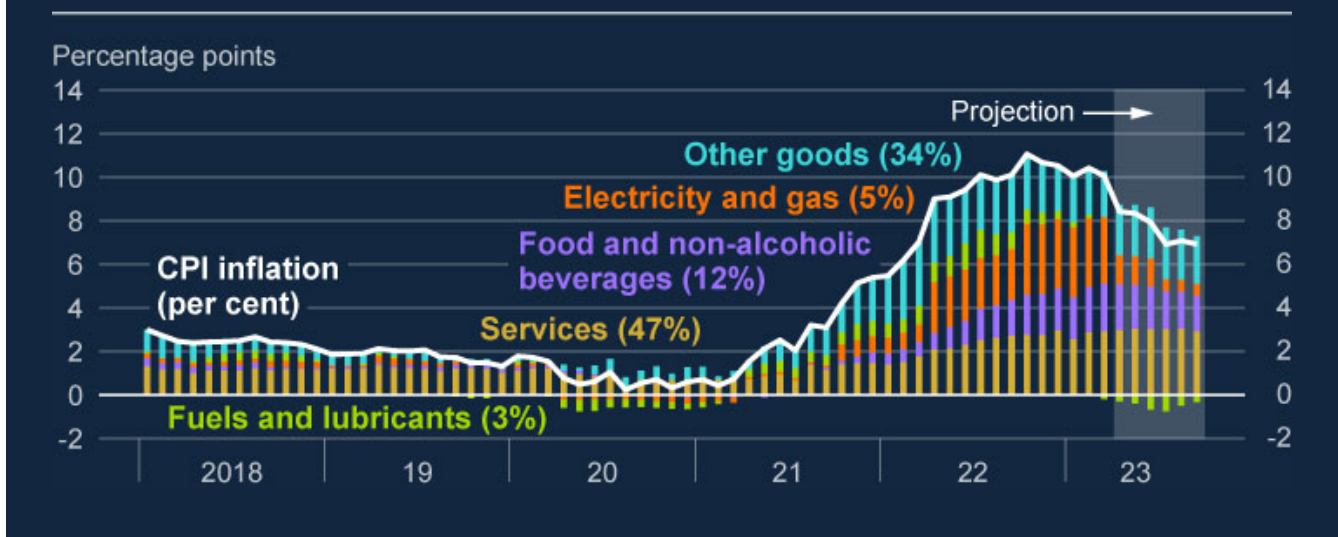
The falls in wholesale gas futures prices over recent months (Chart 2.2) will feed through into lower gas and electricity prices from July onwards. The Ofgem price cap is expected to fall to a little over £2,000 in 2023 Q3 (calculated based on the typical household's energy usage). That is below the EPG and so will become the price that most households pay for gas and electricity. This will be the first time in two years that household energy bills have fallen. The projected fall in the contribution from gas and electricity prices to overall CPI inflation is shown in the orange bars in Chart 2.17.

The fall in oil prices relative to one year ago is also reducing the cost of fuel for consumers. The average petrol pump price has been stable at around 145p per litre since the end of March 2023. This compares to an average price of a little over 160p per litre a year earlier in April 2022. The contribution of fuel prices to annual CPI inflation (green bars in Chart 2.17) turned negative in March and is expected to fall a little further in coming months.



**Chart 2.17: CPI inflation is expected to fall to around 7% by mid-2023**

Contributions to CPI inflation (a)



Sources: Bloomberg Finance L.P., Department for Energy Security and Net Zero, ONS and Bank calculations.

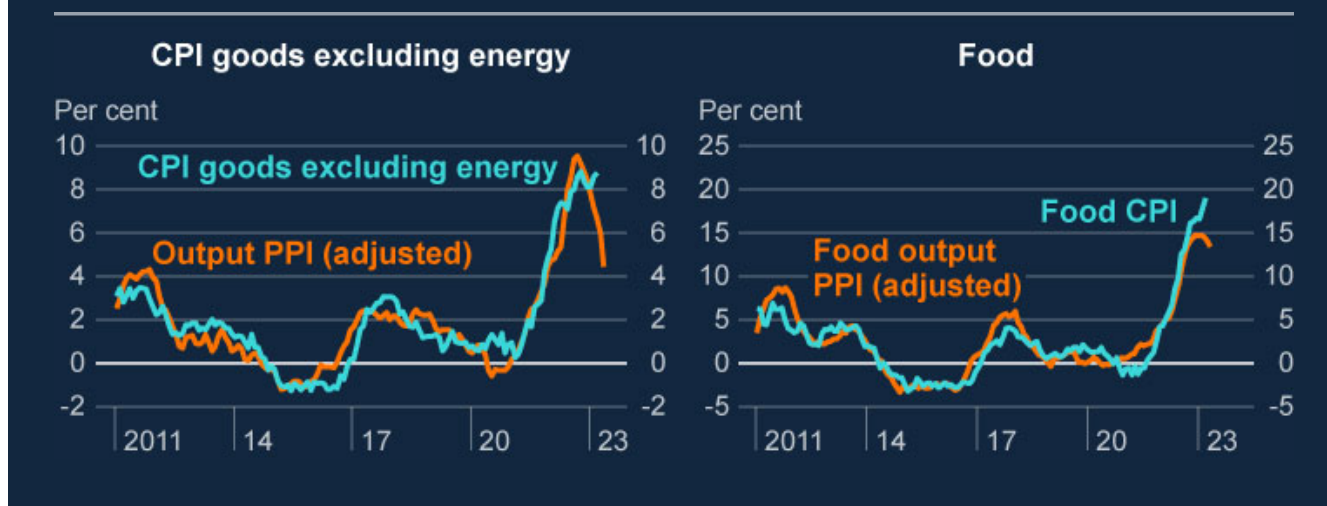
(a) Figures in parentheses are CPI basket weights in 2023. Data to March 2023. Bank staff projections from April to September 2023. Fuels and lubricants estimates use Department for Energy Security and Net Zero petrol price data for April 2023 and then are based on the sterling oil futures curve.

### | ...and easing supply chain pressures pass-through into CPI inflation.

In addition to lower energy prices, some supply chain cost pressures are moderating, for example shipping costs (Section 2.1). That should also support the near-term fall in consumer price inflation. As shown in the left panel of Chart 2.18, producer output price inflation, a measure of the change in the prices of goods sold by manufacturers, has a close relationship with consumer price inflation for goods excluding energy. It tends to lead changes in consumer prices by a couple of months. This relationship has not been stable over time and changes in producer prices may currently take longer to pass through to consumer prices than is typical. Nevertheless, the marked fall in annual output price inflation seen recently should contribute to the expected decline in goods inflation at some point.

### Chart 2.18: Producer price inflation is falling, but less so in the food sector

Annual inflation of select CPI and PPI components (a)



Sources: ONS and Bank calculations.

(a) The food CPI series is for food and non-alcoholic beverages. The overall output PPI series is the headline ONS measure for manufacturing output producer prices. The food output PPI series is the producer price series for outputs of food products. The PPI series have been mean and variance adjusted to match the corresponding CPI series between 2010 and 2023. In addition, to reflect lags between producer and consumer prices, the PPI series have been shifted to maximise the correlation with CPI. The final data points are for March 2023.

#### Cost pressures are easing more slowly for food products than for other goods.

Annual consumer price inflation for food and non-alcoholic beverages has been particularly high, reaching 19.1% in March 2023 (right chart in Chart 2.18). Other European countries currently have similar food price inflation rates to the UK (Chart 2.19), suggesting common cost increases from energy price rises, the Russian invasion of Ukraine, and poor harvests from unfavourable weather in some areas of Europe. In the US, where the effects of these shocks have been smaller, food price inflation is lower.

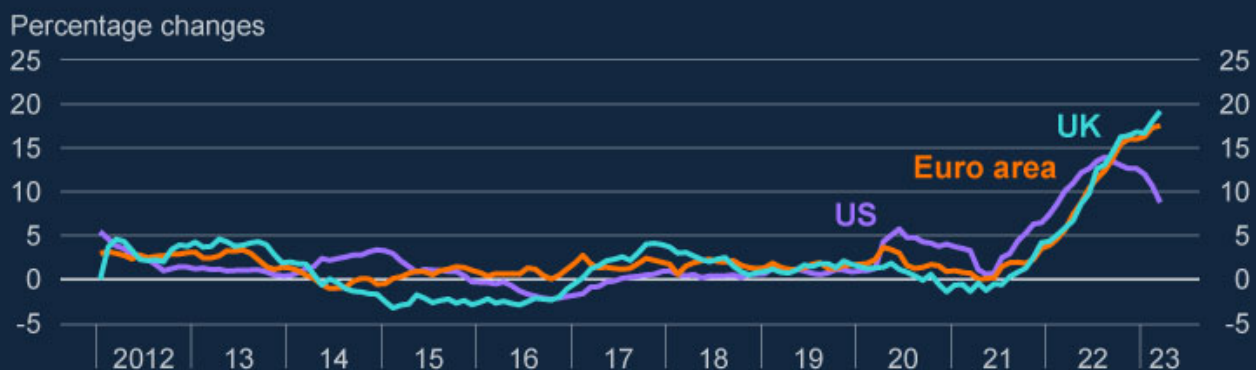
The outlook for food price inflation is uncertain, but recent evidence suggests that it will fall back considerably slower than expected in February. Contacts of the Bank's Agents suggest that food producers expect some production costs to moderate due largely to declining energy prices, but the pass-through of producer costs to consumer prices may take time. Food producers purchase inputs on fixed-term contracts which may take time to reprice. There can also be lags between input costs and production output: for example, fertilisers will typically be purchased in the autumn for the harvest the following year. This could result in food inflation remaining higher for longer than suggested by developments

in input costs alone. There is also some evidence from the Bank's Agents that profit margins along the food supply chain have been squeezed, and so some businesses will try to rebuild margins as their costs fall.

The current near-term projection for food inflation in the UK does not include any reduction in the average level of food prices, only a slowing in the rate of inflation. Similar to energy prices, where gas futures curves remain over double their typical pre-pandemic level, the sustained higher price level represents a long-term cost for households and businesses, and this is one driver of subdued economic activity over the forecast horizon. For example, in 2020–21, spending on food and non-alcoholic beverages made up 14.4% of total spending for the average household. Higher prices for food and energy particularly hit families on lower incomes as these items tend to make up a larger share of their overall consumption.

**Chart 2.19: Food price inflation rates are similar in the euro area and the UK, suggesting common increases in production costs are a main cause**

Annual food and non-alcoholic beverages price inflation (a)



Sources: ONS and Refinitiv Eikon from LSEG.

(a) Euro area data series is the HICP measure of food and non-alcoholic beverages. UK data series is the CPI measure of food and non-alcoholic beverages. US data series is the PCE measure of food and non-alcoholic beverages purchased for off premises consumption.

Taken together, a number of factors are expected to reduce CPI inflation. But these factors may be less informative about inflationary pressures in the medium term. Section 3 discusses factors that are potentially more informative including labour market tightness, wage growth and services price inflation.

## Box B: The cash-flow channel of monetary policy

CPI inflation has risen substantially since 2021 and the MPC has increased interest rates in order to ensure inflation returns sustainably to the 2% target. Prior to this month's meeting, Bank Rate has been increased by 415 basis points since December 2021, to 4.25%. The MPC is monitoring closely how tighter monetary policy is affecting the economy. This occurs through a number of channels, including via asset prices and the exchange rate (these channels are summarised in [Mann \(2023\)](#)). The effects of monetary policy via these different channels will affect households and firms in different ways depending on their characteristics, such as how much debt and savings they have.

This box focuses on the cash-flow channel of monetary policy: how changes in Bank Rate affect directly the amount of money that people have to spend on goods and services. While this is just one of several ways in which changes in Bank Rate affect the economy, it is a channel that is directly observable by households and businesses. Overall, the MPC judges that this is operating broadly as expected during the current tightening cycle, although the greater share of fixed-rate mortgages means that it is likely to operate more slowly than in the past. Further work on the monetary policy transmission mechanism is being conducted at the Bank and will be published over the next year.

### The cash-flow channel of monetary policy

**Bank Rate is a key determinant of the interest rates faced by households and firms, but other factors also matter.**

The cash-flow channel operates via the interest rates that financial institutions charge households and firms to borrow from them, and the interest rates they pay on deposits. Higher interest rates on debt reduce disposable income, while higher rates of interest being paid on deposits increase disposable income. However, since borrowers' spending is more sensitive to changes in income than that of savers, the cash-flow channel tends to reduce spending across the economy as a whole when interest rates rise.

As set out in Box C of the [February 2022 Report](#), while changes in Bank Rate are an important influence on many retail interest rates, they are also affected by other factors. For example, banks' funding costs increased following the failure of Silicon Valley Bank, but have since retraced most of that increase (Section 2.1). A sustained increase in bank funding costs because of such factors would probably raise the interest rates banks charge, but that would not be because of a change in monetary policy.

## Table 1: The rise in Bank Rate has increased borrowing rates for households and firms

### Retail deposit and lending interest rates, corporate borrowing rates and reference rates

(a)

	Level (per cent)	Change since November 2021 (basis points)
<b>Households <a href="#">(b)</a></b>		
<b>Mortgages</b>		
Two-year fixed rate, 75% LTV	4.76	322
Two-year fixed rate, 90% LTV	5.30	327
Five-year fixed rate, 75% LTV	4.27	275
Effective rate on total stock	2.73	71
<b>Consumer credit</b>		
£10,000 unsecured loan	5.88	201
Representative credit card	22.48	106
<b>Deposits</b>		
Instant access savings	1.53	142
Two-year fixed-rate bond	4.05	360
<b>Private non-financial corporations <a href="#">(c)</a></b>		
New lending	5.76	371
Effective rate on total stock	5.79	309

## Reference rates

	Level (per cent)	Change since November 2021 (basis points)
<b>Reference rates</b> <sup>(d)</sup>		
Two-year OIS	4.25	335
Five-year OIS	3.76	278
Bank Rate	4.25	415

Sources: Bloomberg Finance L.P. and Bank calculations.

(a) The Bank's quoted and effective rates series are weighted averages of rates from a sample of banks and building societies with products meeting the specific criteria, such as being widely accessible. Data are not seasonally adjusted.

(b) Sterling-only monthly average quoted and effective rates. The latest data points are for March 2023.

(c) Sterling-only monthly average effective rates. The latest data points are for March 2023.

(d) Bank Rate is reported as end of month value and OIS rates are monthly averages. The latest data points are for March 2023.

### Staff analysis suggests that changes in risk-free rates have passed through as expected into new mortgage and corporate borrowing rates...

Bank Rate is the main 'reference rate' or 'risk-free rate' for some retail products, but OIS rates are the key reference rate for others, and largely reflect expectations for the path of Bank Rate. If Bank Rate changes, but expectations for Bank Rate in the future change by less, then moves in Bank Rate and OIS rates – which are summarised by the yield curve – will differ.

The matched-maturity reference rates used to price two and five-year mortgages have risen by 335 and 280 basis points respectively since November 2021, with the rates being quoted to borrowers for new mortgages increasing by similar amounts (Table 1). Mortgage rates did increase by more than this after the period of volatility in UK interest rate markets during late September and early October, but have since fallen back (Chart A). Staff analysis using a methodology based on [Alloza et al \(2020\)](#), which controls for other factors that may also affect mortgage rates such as bank funding costs, financial market volatility and broader macroeconomic developments, suggests that pass-through from these reference rates has been broadly as expected.

Unsecured borrowing rates are less sensitive to Bank Rate, tending to be driven by other factors such as the credit risk associated with the borrower. The quoted rates on these products has risen by much less than Bank Rate since November 2021 (Table 1).

In contrast to households, most corporate bank lending is at variable interest rates that tend to quickly reflect changes in Bank Rate and reference rates. The effective rates of interest on outstanding PNFC debt and new lending have risen by around 310 and 370 basis points, respectively, since November 2021. This suggests that the rise in reference rates has mostly been passed through since late 2021.

### **...but pass-through into household instant-access deposit rates has been muted**

Around 60% of household deposits are held in interest-bearing instant access accounts, which typically have a variable interest rate. The pass-through to these accounts has been unusually weak over the tightening cycle, with the average quoted interest rate rising by around 140 basis points so far (Table 1). One reason for this is because the spreads between Bank Rate and savings rates were unusually compressed during the long period when Bank Rate was close to zero (see Box 2 in the [February 2018 Report](#)), so some widening of deposit spreads was to be expected when Bank Rate began to rise again. The banking sector's ample supply of deposit funding, as indicated by its overall loan to deposit ratio being well below 100%, may also have reduced the incentive to increase rates to attract deposit funding.

Interest rates on higher-yielding savings accounts, such as fixed-rate bonds, have risen broadly in line with changes in reference rates. For example, the interest rate on a two-year fixed-rate bond has increased by around 360 basis points since late 2021. Probably reflecting these higher rates, there has been a shift in deposit volumes from instant access accounts towards time deposits over the past six months.

### **Many mortgagors have yet to experience higher rates...**

Although the rates being quoted on new mortgages have risen by around 300 basis points, the effective rate on new lending has risen by less (orange line in Chart A). The average effective rate on the existing stock of mortgages has only risen by 70 basis points (purple line in Chart A). That much smaller rise reflects the fact that fixed-rate mortgages account for 85% of outstanding mortgages (Chart C), so many borrowers have yet to pay higher rates.



### Chart A: Rates on the stock of mortgages have risen by much less than quoted rates on new mortgages

Quoted interest rates on new two-year 75% LTV mortgages, effective rate on new lending and effective rate on existing stock of mortgages (a)



(a) The latest data points are March 2023. The Bank's quoted and effective rates series are weighted averages of rates from a sample of banks and building societies with products meeting the specific criteria, such as being widely accessible. The data are sterling-only monthly averages and are not seasonally adjusted.

### | ...so the direct cash-flow effects on consumption have been small to date...

Chart B shows an estimate of the size of these mortgage cash-flow effects on consumption, based on the composition of the stock of mortgages in late 2021. It suggests this channel has had only a small effect on spending so far, reducing aggregate household consumption by around 0.3% in 2023 Q1. That largely reflects lower spending by households with variable-rate mortgages.

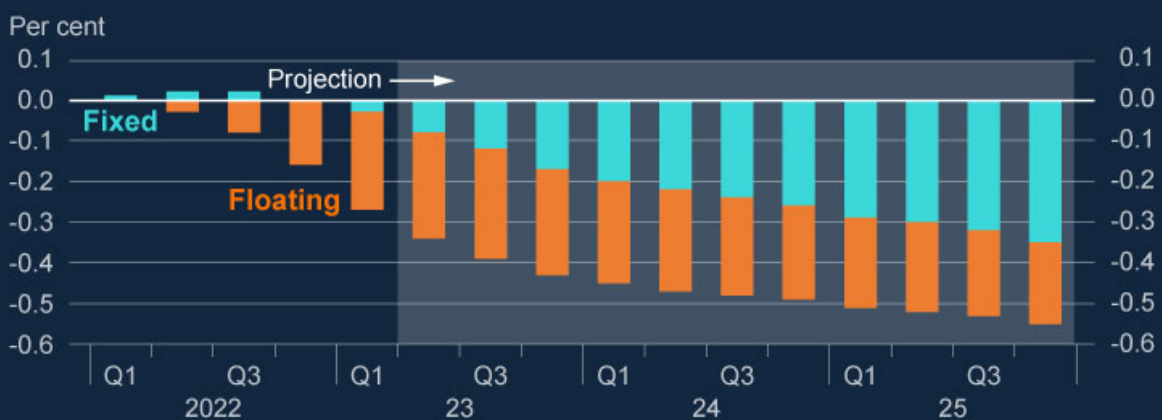
This exercise combines data on mortgage rates with information about when fixed-rate mortgages expire, to estimate how households' monthly repayments will change. To estimate the impact of that on consumption, the exercise relies on an estimate of the marginal propensity to consume (mpc), which measures the change in spending resulting from a change in disposable income. In this case, staff have used an mpc of 0.4, which is in line with evidence in the NMG survey, in which households are asked about their response to a hypothetical change in their mortgage payment.

There are uncertainties around the scale of the cash-flow effect. On the one hand, households on fixed-rate mortgages may have reduced spending in anticipation of the change in their borrowing costs, and some studies suggest that households increase their marginal propensities to consume as the size of the interest rate

increase gets larger ([Fuster et al \(2020\)](#)). These factors would imply a larger fall in spending. On the other hand, the latest NMG survey suggests that the mpc at the moment is not significantly different from that observed in years before the current tightening cycle. The particular exercise in Chart B may overstate the cash-flow effect if those on variable rates in late 2021 have since switched to fixed-rate products as Bank Rate has risen. Loan-level data suggest that around one fifth of mortgagors who were on a variable-rate mortgage when Bank Rate began to rise have switched to a fixed-rate product.

### Chart B: The cash-flow effects of higher interest rates are expected to increase

Changes in mortgage interest payments as a share of consumption (a)



Sources: Bank of England, FCA Product Sales Database, ONS and Bank calculations.

(a) Chart shows estimates of the impact of changes in mortgage rates on consumption, based on the maturity profile of the stock of mortgages at the end of 2021. Up until 2023 Q1, it assumes fixed-rate mortgages were remortgaged at the effective rate on new lending. Variable-rate mortgages are assumed to change in line with changes in Bank Rate. Beyond that, it uses a projection for quoted rates on new secured lending for households, taking into account the market-implied path for interest rates. Figures are shown relative to nominal consumption in 2021, and assume that on average households reduce consumption by 40 pence for every £1 increase in their mortgage repayments.

#### ...but these are expected to build in 2023.

The cash-flow effects from higher rates are expected to increase between 2023 Q2 and the end of the year as more households re-fix onto higher rates (Chart A). Around 1.3 million households are expected to reach the end of their fixed-rate term between 2023 Q2 and the end of 2023. For the average mortgagor within that

group, monthly interest payments will increase by around £200 a month if their mortgage rate rises by 300 basis points – the increase implied by quoted mortgage rates.

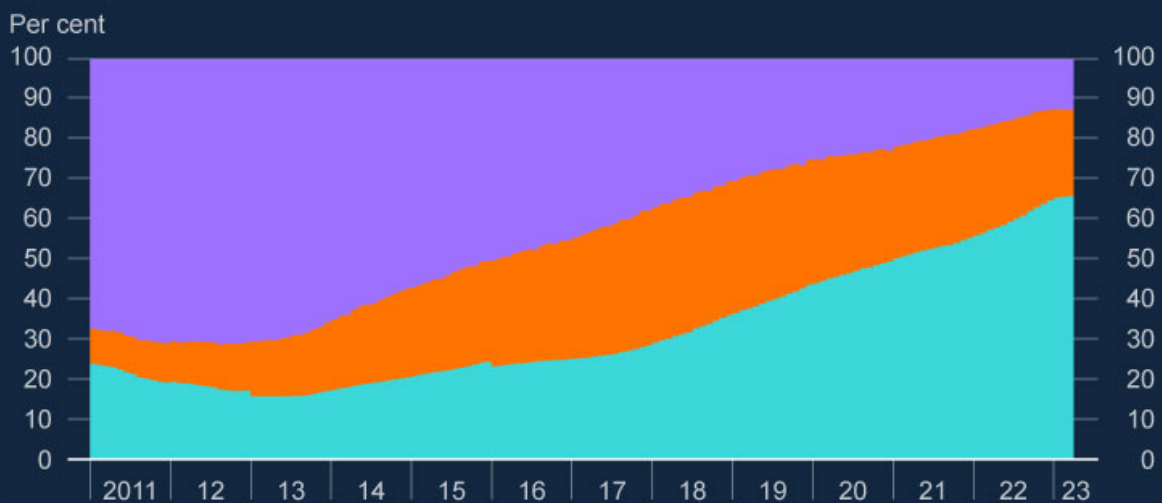
**The greater share of fixed-rate mortgages means that the cash-flow channel is likely to operate more slowly than in past tightening cycles.**

The proportion of mortgagors who are on fixed-rate mortgages has risen from under 30% in the early 2000s to around 85% at present, as households have taken out mortgages at lower rates in the years since the financial crisis. In addition, the length of time people are deciding to fix their mortgages for has become longer. In 2018, the share of fixed-rate mortgages with an initial term of greater than two years started to exceed that of products with a term of two years or less (Chart C). The combination of these factors means that the cash-flow effect of monetary policy is likely to be slower now compared to previous tightening cycles.

**Chart C: The share of fixed-rate mortgages has increased over time**

Distribution of mortgages by type of product (a)

■ Fixed rate, more than two years    ■ Floating rate  
■ Fixed rate, two years or less



(a) Share of value of outstanding mortgage stock. Data from January 2016 are for individuals and individual trusts only. Latest data points are March 2023.

## Survey evidence on the impact of higher rates on households and firms so far

**Households expect the impact of higher interest rates to increase over the coming year, and although there has been some improvement in expectations for their own financial situation, these remain below 2019 levels.**

In the latest NMG survey, households were asked how rising interest rates have affected their finances over the past 12 months and how they expect them to be affected in the coming year. For mortgagors, higher interest rates have weighed on their finances, and a greater share expect negative effects in the year to come (Chart D). This is broadly consistent with the cash-flow effects of higher rates building as mortgagors move onto higher rates. In contrast, households who are net savers have seen a positive impact on their household finances in the past year and a similar share expect positive effects in the year ahead.

Despite these reported impacts on household finances via higher interest rates, the latest survey also showed that households' expectations for the general economic situation and labour market prospects had improved since the second half of 2022. The net balances for households' income expectations and the likelihood of job losses were the highest and lowest, respectively, recorded in the survey since 2015. That said, the balance for households' own financial situation, while improving in recent surveys, remains negative and below 2019 levels.

### Chart D: Households expect interest rate effects to be greater in the coming year

Reported impact of higher interest rates on household finances (a)



Sources: NMG Consulting and Bank calculations.

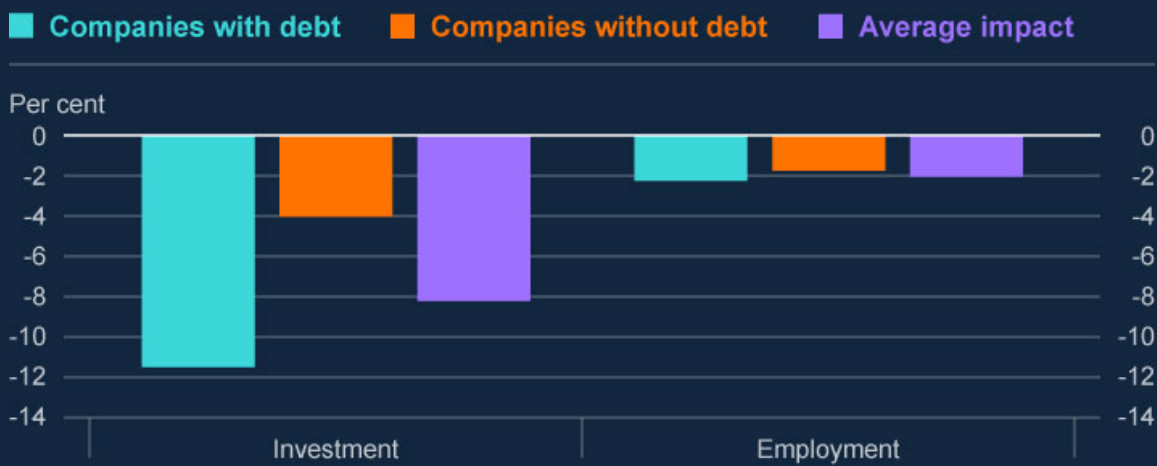
(a) These figures are based on responses to the following questions in the March 2023 NMG survey: 'What impact has this rise in interest rates had on your household finances in the last twelve months?' and 'What impact do you expect the rise in interest rates to have on your household finances in the next twelve months?'. Mortgagors are defined as households who have a mortgage and whose net savings are less than zero, while savers are households with positive net savings.

### The DMP suggests that higher interest rates have caused firms to cut back on investment and employment.

Survey evidence from the DMP indicates that some firms are responding to higher interest rates by cutting back on investment and reducing employment. Staff estimates based on the survey responses imply that higher interest rates have lowered investment by around 5% in 2022 Q4. Firms' reported expectations of their own investment suggest that this effect will increase going forward, with investment expected to be 8% lower on average over the next year (Chart E). The impact on employment is smaller, with a fall of 2% expected over the next year. These effects were concentrated in roughly a third of the sample, and were also stronger for firms that are more exposed to interest rates because they have existing debt (aqua bars in Chart E). However, firms which do not have any debt also expect investment and employment to be lower in the future (orange bars in Chart E). That is probably due to the effects of higher interest rates on demand for their goods and services, suggesting that this survey is picking up more than just the cash-flow channel of monetary policy.

### Chart E: Firms expect to reduce investment and employment over the next year as a result of higher interest rates

Expected impact of higher interest rates on firms' investment and employment over the next year (a)



Sources: DMP Survey and Bank calculations.

(a) Based on responses to the questions between November 2022 and January 2023: 'Holding other factors constant, how do you expect changes in interest rates to affect the number of employees that your business has over the next year?' and 'Holding other factors constant, how do you expect changes in interest rates to affect the capital expenditure of your business over the next year?'. Firms are split into those with or without debt based on responses to the question: 'Approximately how much interest-bearing borrowing does your business have on its balance sheet, both now and at the end of 2021?'.

## Box C: Agents' update on business conditions

The key information from Agents' contacts considered by the Monetary Policy Committee at its May meeting is highlighted in this box, which summarises intelligence gathered in the six weeks to late April.

Across the economy, private sector activity was broadly flat on a year earlier, but that was stronger than contacts had generally expected, and so business confidence had risen.

Consumer-price inflation remained very high, most notably for food and energy. Contacts in the food sector expected inflation to decline in the second half of 2023, but to remain elevated. There was growing confidence that other goods price inflation would ease through the year, reflecting improved supply and lower transport costs. But contacts only expected modest declines in service sector price inflation, due largely to labour market conditions.

The UK labour market loosened and employment was expected to be broadly stable over the coming year. Wage inflation remained elevated, averaging around 6%, but was expected to ease modestly through the year.

### **Household consumption had been more resilient than expected.**

Retailers generally said that household spending had been more resilient than expected. Sales in Q1 were up quite strongly on a year earlier. That largely reflected higher prices, with the volume of sales broadly flat. Consumers continued to change spending habits in response to higher prices, for example shopping in lower-cost outlets or sacrificing quality to save money. Sales of furniture and homeware had been weak, in part because spending had been so high on these items during the pandemic.

Hospitality sector contacts also typically said that their revenues had been stronger than expected, often higher than a year earlier. Again, that reflected significantly higher prices charged, while volumes had been broadly flat. Demand for rented accommodation was reported to be very strong. Demand for many other services had been stable.

Some household-facing contacts had revised up their expectations for sales growth through 2023, reflecting positive news on sales in Q1, and the decline in wholesale energy prices which had improved the outlook for household finances.



**Business services continued to grow modestly, manufacturing output stabilised, but construction output continued to fall.**

In aggregate, business services revenue grew at roughly normal rates, but that was driven by large price rises, and activity only rose modestly. Insurance, IT, accountancy, consulting and private health sectors all reported continued robust growth. There was further recovery in corporate events and advertising compared to a year earlier. However, various transactional activities, for example in commercial property and mergers and acquisitions, had been unusually weak in late 2022 and to date in 2023, depressing demand for some professional services.

Manufacturing output stabilised in 2023 Q1 following a period of contraction. Export orders picked up. But construction sector output was lower in Q1 than a year earlier, reflecting weaker development activity in housing and commercial property. Across both sectors, the availability of labour and materials had continued to improve.

**The impact of recent bank failures on UK credit conditions had started to recede, and investment intentions remained modestly positive.**

Financial market conditions tightened in March in response to the failure of Silicon Valley Bank, Signature Bank and Credit Suisse. By April, conditions started to normalise. Credit supply to small and medium-sized firms in the UK did not appear to have been affected by the bank failures overseas. However, credit conditions remained tighter than normal, reflecting higher interest rates and the weaker economy which implied higher credit risk. The availability of more speculative finance – such as venture capital and syndicated leverage loans – was particularly poor.

On balance investment intentions for 2023 increased modestly, but relative to low investment levels in 2022. That reflected the desire to improve energy and labour efficiency in the face of higher costs, and also modestly higher growth expectations.

**Confidence in the residential housing market had recovered a little, but it remained depressed in the commercial property market.**

In 2023 Q1 and into April, confidence in the housing market appeared to have picked up a little, relative to the weak position in the previous quarter. Viewings started to pick up and more properties were put up for sale. Contacts expected house prices to stabilise after some months of modest declines. Transaction levels were expected to be lower than in 2022, but roughly normal. That was stronger than expected at the start of the year. Demand in the rental market continued to be very strong, which was driving sharp rises in rents, up around 10% on a year earlier.



The number of commercial property transactions was depressed in 2022 Q4 and 2023 Q1, as investors held back from purchases in response to higher finance costs and uncertainty about valuations. The market continued to adjust to post-pandemic changes in lifestyle and working practices.

**Employment was likely to be broadly stable over the coming year, and recruitment difficulties had eased apart from in some professional services. Pay settlements remained elevated.**

On average, contacts intended to hold headcount stable over the coming year. Higher labour costs and a weak growth outlook were reasons to shed labour, but contacts preferred to hang on to their staff given past recruitment difficulties. In some cases they were reducing hours if demand was weak.

The labour market remained tight. But many contacts said that recruitment difficulties had eased in recent months and were starting to approach pre-pandemic conditions. Employees were moving jobs less frequently and contacts were seeing more applications for job vacancies, as some of their competitors had started to shed staff. But in professional service sectors, for example accountancy and some IT areas, contacts still reported severe skill shortages.

Pay settlements in recent months were stable, averaging 6%. Pay awards tended to be higher for the lower paid, given the rise in the National Living Wage. Fewer contacts planned to make one-off payments to staff to help with the cost of living. Contacts expected the decline in headline inflation and the looser labour market to begin to reduce pay awards modestly in the second half of the year.

**Input cost inflation had eased, which was expected to lead to lower consumer price inflation later in the year, particularly for goods.**

Costs had fallen for some raw materials, transport and wholesale energy, alongside further improvement in supply chains. Not all businesses would benefit immediately, as many had contracts that fix prices for a certain period, particularly for energy.

The improving cost outlook meant many manufacturers expected their price inflation to decline. There was less sign of respite for business services inflation, which remained elevated in the light of high pay growth.

Retail price inflation for food had risen more than contacts expected, to almost 20%, reflecting high input, labour and energy costs, poor harvests for some crops, and lower domestic production over the winter. Contacts revised up their view of the year ahead, but still expected the rate of inflation to fall back, though it would take

some time for easing cost pressures to work fully through the supply chain. Many thought that food price inflation would remain elevated, even by the end of the year, in part due to some rebuild in profit margins which had been squeezed along the supply chain.

Retail contacts were more confident of a significant easing in inflation by the end of the year for durable goods, and clothing and footwear, in the light of easing material, energy and transport costs. Where discretionary demand had weakened, there might be more discounting than last year. New car prices had continued to rise, but the inflation rate might ease as supply conditions improved.

Consumer services price inflation was expected to abate more gradually. Contacts reported sharply rising labour costs, as well as higher cost for energy and materials. Many were aiming to pass on as much of those into higher prices as they could, but in sectors such as hospitality that would depend on the resilience of demand.

## 3: In focus – The outlook for inflation

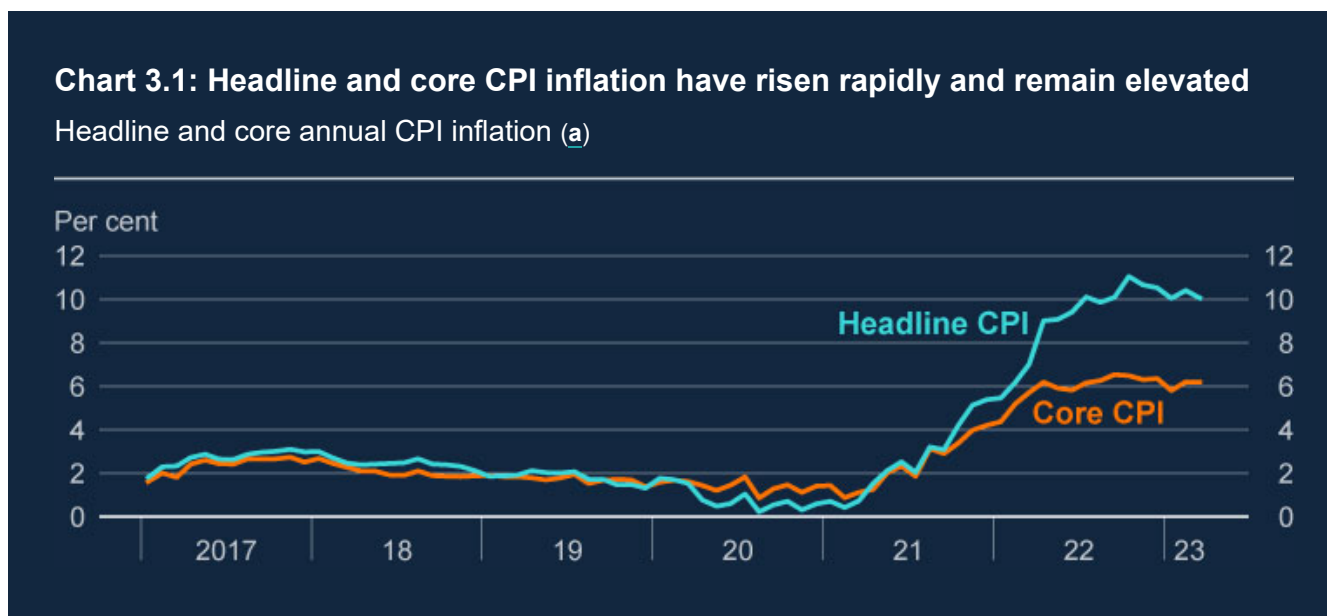
A series of significant shocks has kept CPI inflation well above the 2% target for around two years, with the direct impact of those shocks particularly apparent in higher energy and food prices. But these shocks have also added to UK domestic inflationary pressures. This partly reflects the indirect effects of higher input costs on the broader CPI basket, but also second-round effects on inflation in wages and domestic prices. While inflation is expected to fall in the coming months due to base effects and lower energy prices, a key uncertainty is whether the unwinding of second-round effects takes longer than it did for them to emerge (Section 3.1). In their assessment of the inflation outlook, the MPC is monitoring closely indicators of persistent inflationary pressures, including labour market tightness, wage growth and services price inflation (Section 3.2). Overall, the MPC expects CPI inflation to fall back to around the 2% target by the end of next year. That is around three quarters later than in the February Report, predominantly reflecting higher expected food price inflation. The risks around that modal projection remain skewed significantly to the upside, primarily reflecting the possibility of more persistence in domestic wage and price setting (Section 3.3).

### 3.1: Why has inflation been above target?

**A series of significant shocks has pushed CPI inflation well above the 2% target, with the current impact of these shocks apparent in energy and food prices...**

CPI inflation has been consistently above the 2% target since July 2021 and averaged 10.2% in 2023 Q1 (Chart 3.1). This is the result of a series of significant shocks hitting the economy, all of which have operated in the same direction. For example, global supply bottlenecks associated with the aftermath of the pandemic led to increases in tradable goods prices (Box B of the [February 2022 Report](#)). This was followed by Russia's invasion of Ukraine which greatly exacerbated the increase in wholesale gas prices, as well as the prices of many agricultural commodities. Although wholesale gas futures prices have fallen materially recently (Chart 2.2), they remain higher than their pre-pandemic average. In addition, the initial shock is still affecting firms. Some contacts of the Bank's Agents report that they are on fixed energy contracts from last year, which will not renew until later this year, and are thus still subject to elevated energy costs. Food prices

have continued to rise sharply, reaching 19.1% in March, in part driven by higher energy prices but also adverse weather conditions (Section 2.4). Around half of the current strength in inflation is accounted for by energy and food prices (Chart 2.17).



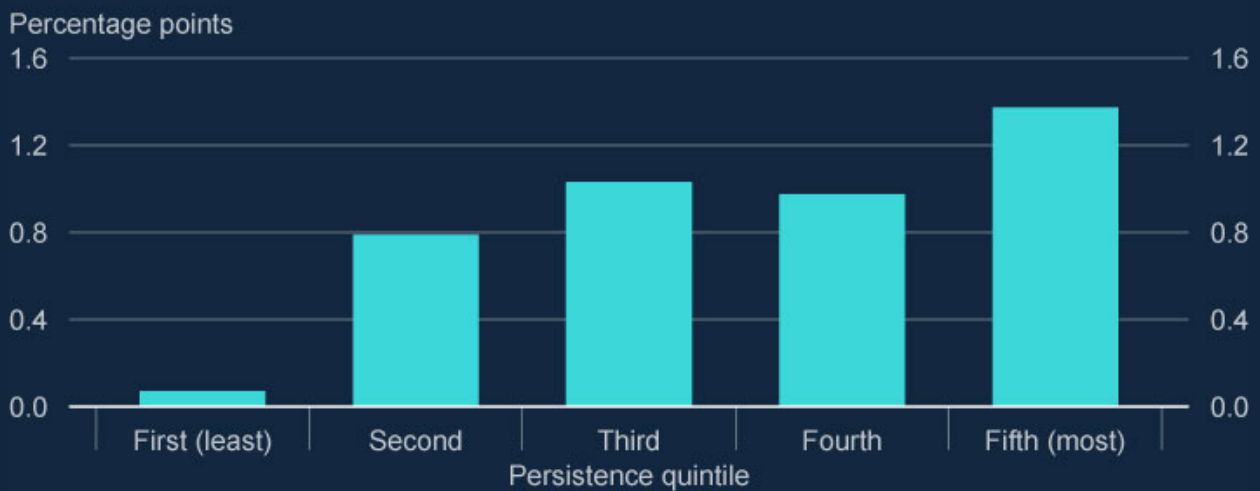
(a) The latest data points are for March 2023. Core CPI is CPI excluding energy, food, beverages and tobacco.

**...but core inflation is also elevated, particularly among the items that have had the most persistent inflationary dynamics in the past.**

Core CPI inflation, which excludes food and energy prices, has also risen and remains elevated, averaging 6.1% in 2023 Q1 (Chart 3.1). Much of that increase in core inflation has been accounted for by components of CPI that have exhibited more persistent inflationary dynamics in the past, such that a shock to the inflation rate in one period is estimated to take longer to dissipate (Chart 3.2). Restaurants, for example, are one of the most persistent components of core CPI inflation and are therefore shown in the fifth quintile of Chart 3.2. This item accounts for around 0.9 percentage points of the rise in core inflation relative to its pre-pandemic average.

### Chart 3.2: Components that have exhibited persistent inflationary dynamics in the past have driven the increase in core CPI inflation

Contribution to change in core CPI inflation (a)



Sources: ONS and Bank calculations.

(a) Contribution to the change in core CPI inflation between the average over 2012–19 and the three months to March 2023 of each component of core CPI inflation. Persistence quintile refers to the estimated strength of the autoregressive properties of the quarterly inflation rate of the 85 components within core CPI, with the first quintile covering items whose inflation rates are least statistically related to the prices in previous periods, and the fifth quintile showing those items that are most statistically related.

### The strength in core inflation will partly reflect the indirect effects of higher energy prices...

Large energy price moves are likely to affect all sectors to some extent, as energy is a key input to production across the economy (Box B of the [November 2022 Report](#)). For example, restaurants use gas to heat ovens. While energy and other imports make up less than one quarter of the value of the CPI basket, this share increases when their use at each stage of the supply chain is considered ([Dhingra \(2023\)](#)). Analysis by Bank staff suggests that there have been broad-based comovements in prices across a range of items (see [How broad-based is the increase in UK inflation?](#)). Prices moving jointly in this way across different sectors suggests that changes in some prices in the CPI basket may be having indirect effects on others.

**...but it will also reflect second-round effects as the series of external shocks interacts with the state of the domestic economy...**

It is also possible that economic behaviour has changed in a way that makes the response of headline inflation to these large external shocks last longer. That behaviour may be influenced by the state of the domestic economy, such as the tightness of the labour market and the degree of corporate pricing power. In a tight labour market, firms are more likely to agree to higher pay settlements for their employees. So when those employees observe higher prices for the goods and services they buy, as well as a fall in their real incomes, they may feel that attempts to offset these losses through higher nominal pay are more likely to be successful ([Bruno and Sachs \(1985\)](#) and [Layard et al \(2005\)](#)). And if companies sense that their customers will bear higher prices, they may be more willing to pass higher labour and other input costs on to them.

**...as well as a change in the way firms have responded to these shocks.**

The magnitude of the increases in energy and other input costs may also have affected how firms set prices. For example, firms may previously have been content to absorb high-frequency changes in costs and adopted a ‘time-dependent’ approach to pricing behaviour, rolling all increases in costs into a single annual increase in prices for example. When those high-frequency changes in costs become too large, however, companies may feel they need to respond more directly and adopt a ‘state-dependent’ approach. Around 60% of firms in the DMP Survey reported that in the current high-inflation environment they change prices in response to events or thresholds, rather than at fixed time intervals (Chart 3.3). Under this approach, pass-through of shocks to prices tends to be faster and increase with the size of the shock. This may help to explain why inflation has risen so rapidly. However, it may also lead to faster declines in inflation once cost pressures abate.

Analysis of the DMP data also suggests that firms’ expectations for their own prices have become more responsive to CPI outturns. In 2022–23, a 1 percentage point increase in CPI inflation was associated with almost a 1 percentage point increase in firms’ expected own price growth, a relationship that was not apparent in previous years. The idea that firms’ attentiveness to economic news can vary over time is incorporated in some economic models (eg [Reis \(2006\)](#)).

### Chart 3.3: Around 60% of firms in the DMP Survey reported changing their prices in response to events such as changes in costs or demand

Share of respondents to the DMP Survey (a)



Sources: DMP Survey and Bank calculations.

(a) Responses to the question: 'Which of the following best describes how your business usually sets prices? Mostly change prices in response to specific events (eg changes in costs or demand); or Mostly change prices at fixed intervals (eg once a year or once a quarter, etc)'. The share of respondents show an average over the February to April 2023 Surveys.

### As the shocks pushing up on inflation recede, a key uncertainty is whether the response of domestic wages and prices will be symmetric.

The decline in wholesale gas prices, alongside the impact of base effects, is expected to lead to a sharp fall in CPI inflation in the coming months (Section 2.4). This should in time reduce the corresponding pressure on domestic inflation. A key uncertainty is whether the unwinding of second-round effects takes longer than it did for them to emerge. On the one hand, if wage and price-setting behaviour is very responsive to headline inflation, domestic wage and price growth may fall as base effects and energy prices drive CPI inflation materially lower in the coming months. On the other hand, if this behaviour is influenced by the prolonged period of above-target inflation, there might be a slower adjustment. In other words, as the initial shocks recede, the response of inflation could be asymmetric.

That is why the MPC is monitoring closely indicators of inflation persistence in the domestic economy, including the tightness of the labour market and the behaviour of wage growth and services price inflation. The latest developments in these indicators are assessed in the next section.



## 3.2: How have some of the indicators of inflation persistence been evolving?

### Labour market tightness

**There are indications that the labour market has started to loosen but it is expected to remain tighter than projected in the February Report in the near term.**

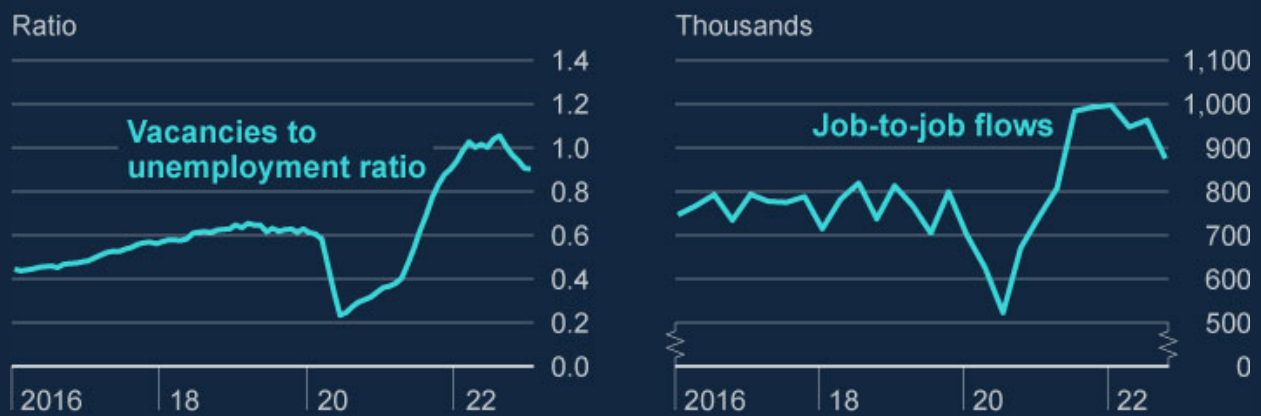
At 3.8% in the three months to February, the unemployment rate remains close to its historical low, and slightly below the MPC's assessment of the medium-term equilibrium rate of unemployment.

Other indicators of labour market tightness suggest that the labour market has started to loosen. While the ratio of vacancies to unemployment remains elevated – and indeed has suggested a tighter labour market than the unemployment rate alone – it has fallen from its peak in 2022 (left panel of Chart 3.4). Similarly, job-to-job flows – which also tend to be high when the labour market is tight – have declined in the most recent data (right panel of Chart 3.4). In addition, contacts of the Bank's Agents report that recruitment difficulties have eased (Box C), and in the latest KPMG/REC UK Report on Jobs, staff availability increased.

Although there are some signs that the labour market is loosening, it is expected to be tighter than had been projected in February in the near term. The unemployment rate is expected to be around  $\frac{1}{4}$  of a percentage point lower in Q2 than in the February Report, and annual employment growth is projected to be over 1 percentage point stronger (Section 2.3).

### Chart 3.4: The labour market remains tight, but there are signs that it is loosening a little

Ratio of the number of vacancies to the number of people unemployed and job-to-job flows (a)



Sources: ONS and Bank calculations.

(a) Vacancies to unemployment ratio data are monthly and the latest data point is for the three months to February 2023. Job-to-job flows (of those aged 16–69 years) measure the number of people who reported being employed in consecutive quarters of the Labour Force Survey, but who in the latter quarter reported being with their current employer for less than three months. These data are quarterly and the latest data point is for 2022 Q4.

## Wage growth

### Nominal pay growth has fallen back slightly, to a rate close to the projection in the February Report...

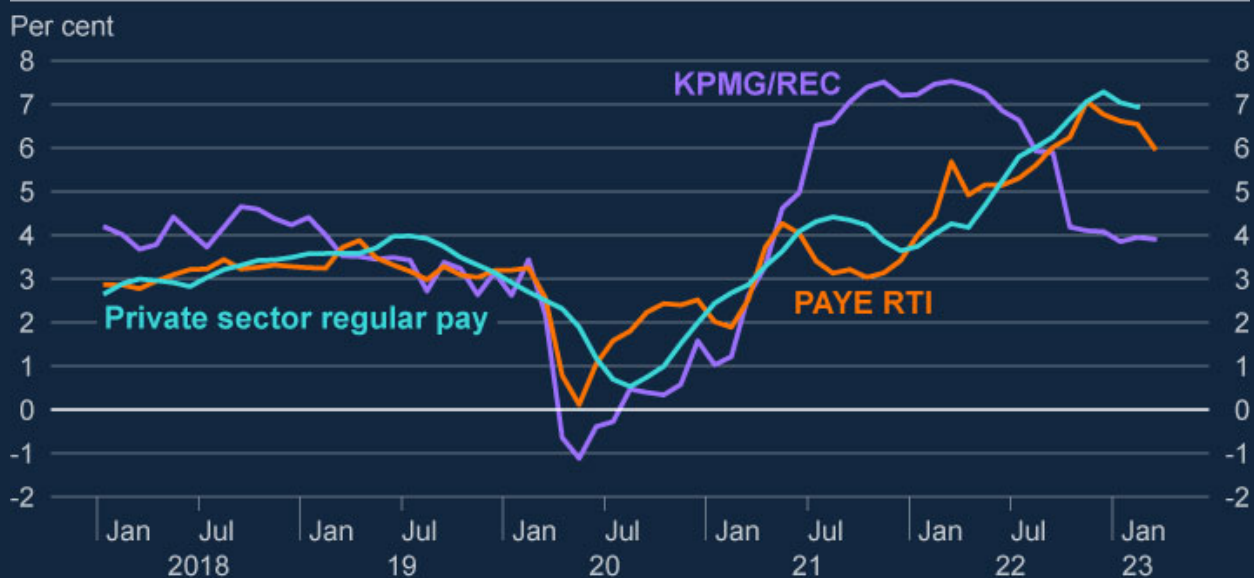
Annual growth in whole-economy average weekly earnings remained flat at 5.9% in the three months to February. Annual private sector regular pay growth – which excludes bonuses – eased a little to 6.9% (Chart 3.5). On a three-month on three-month annualised basis, private sector regular pay growth has fallen significantly, from a peak of 9.0% in July to 5.6% in February. These outturns are close to the projection in the February Report.

### ...and is expected to decline further in the near term...

More timely indicators of pay growth, such as the HMRC payroll data, have softened since the February Report and point to further easing in ONS pay growth. The KPMG/REC permanent staff salaries index tends to lead the ONS measure of private sector pay growth, because it tracks new hires whose pay offers change before existing employees. That indicator has fallen markedly since last summer (Chart 3.5) and suggests that pay growth could weaken further later this year, although it has flattened in recent months.

### Chart 3.5: Pay growth has eased since the February Report, and some indicators point to a further decline this year

Indicators of annual pay growth (a)



Sources: HMRC, KPMG/REC UK Report on Jobs, ONS, S&P Global and Bank calculations.

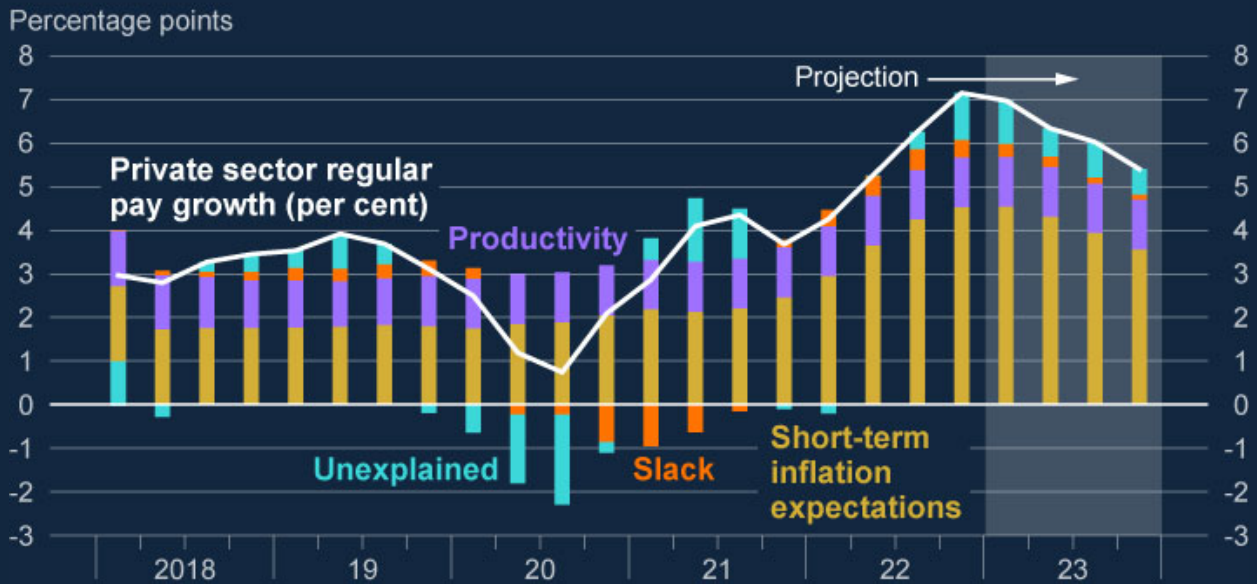
(a) Private sector regular pay growth is Bank staff's estimate of underlying pay growth between January 2020 and November 2022 and ONS private sector regular pay growth otherwise. KPMG/REC shows permanent staff salaries. Pay as You Earn (PAYE) Real Time Information (RTI) shows median of pay growth. The KPMG/REC index is mean-variance adjusted to ONS private sector regular pay growth over March 2001–19. Latest data points are March 2023 for PAYE RTI and the KPMG/REC index, and the three months to February 2023 for private sector regular pay.

#### ...possibly driven by short-term inflation expectations, which move closely with inflation.

Models estimated by Bank staff suggest that households' short-term inflation expectations, which tend to move closely with actual inflation ([Rowe \(2016\)](#)), have been an important driver of the pickup in wage growth (Chart 3.6). These are, in turn, expected to be the key driver of the projected easing in wage growth, as headline inflation falls reflecting lower energy prices, base effects and easing cost pressures (Section 2.4). Respondents to the Agents' pay survey in February reported that inflation was the top factor driving pay settlements this year (Box C of the [February 2023 Report](#)), so as headline inflation declines, the pressure on pay growth should also reduce.

**Chart 3.6: Staff analysis suggests that the expected fall in inflation will drive down nominal pay growth this year**

Contributions to annual private sector regular pay growth (a)



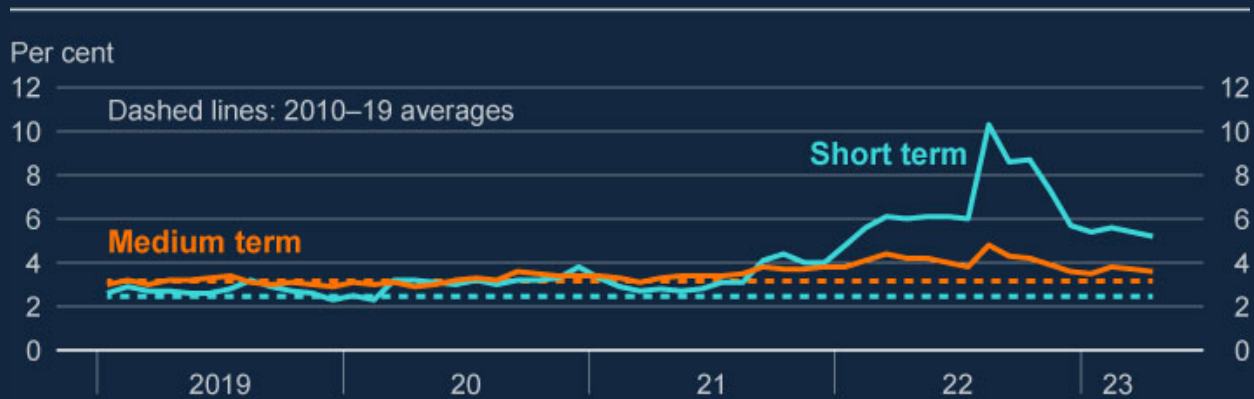
Sources: ONS and Bank calculations.

(a) Wage equation is based on [Yellen \(2017\)](#). Private sector regular pay growth is Bank staff’s estimate of underlying pay growth between January 2020 and November 2022 and ONS private sector regular pay growth otherwise. Short-term inflation expectations are based on the Barclays Basix Index and the YouGov/Citigroup one year ahead measure of household inflation expectations. Since 2022 Q3, the YouGov/Citigroup survey has been based on updated response buckets. Slack is based on the MPC’s estimate of the unemployment gap. Productivity growth is based on long-run market sector productivity growth per head. The unexplained component is the residual. Data are to 2022 Q4 and projections are shown for 2023 Q1 to 2023 Q4.

Short-term measures of household inflation expectations, such as the one year ahead measure in the YouGov/Citigroup survey, have already fallen, although they remain above historical averages (Chart 3.7). The medium-term measure in the same survey has also declined a little. At this horizon, fewer respondents expect inflation to be in the highest tails of the distribution. The share of respondents expecting inflation to rise by 6% or more fell from over 30% in August 2022 to 22% in April 2023, but remained higher than the average over 2019.

### Chart 3.7: Household inflation expectations have fallen back, but remain above pre-pandemic averages

Household inflation expectations (a)



Sources: Citigroup, YouGov and Bank calculations.

(a) Data are not seasonally adjusted. 'Short term' refers to expectations in the next 12 months and 'medium term' refers to expectations five to ten years ahead. The latest data points are for April 2023. Since August 2022, the YouGov/Citigroup survey has been based on updated response buckets.

## Services inflation and firms' pricing decisions

### Services inflation remains elevated, as expected in the February Report.

Services CPI inflation has been rising over the past two years. It was 6.4% in 2023 Q1, close to a 30-year high. It is expected to remain elevated in the near term, similar to the February Report (Chart 3.8).

### Chart 3.8: Services CPI inflation remains elevated, in line with the February projection

Services inflation (a)



Sources: ONS and Bank calculations.

(a) The latest data point is March 2023 and the projection is shown to September 2023.

### Staff analysis suggests that the rise in services prices reflects both wage growth and the indirect effects of higher energy and other input costs...

To help inform the outlook, Bank staff have estimated various models to assess the drivers of services prices. As noted in the February Report, linear regression models suggested that rising pay growth has been a significant contributor to the pickup in services inflation, consistent with the steer from business surveys such as the DMP Survey and the S&P Global/CIPS UK services input price PMI. But other costs, proxied by producer prices, also appeared to have made an important contribution.

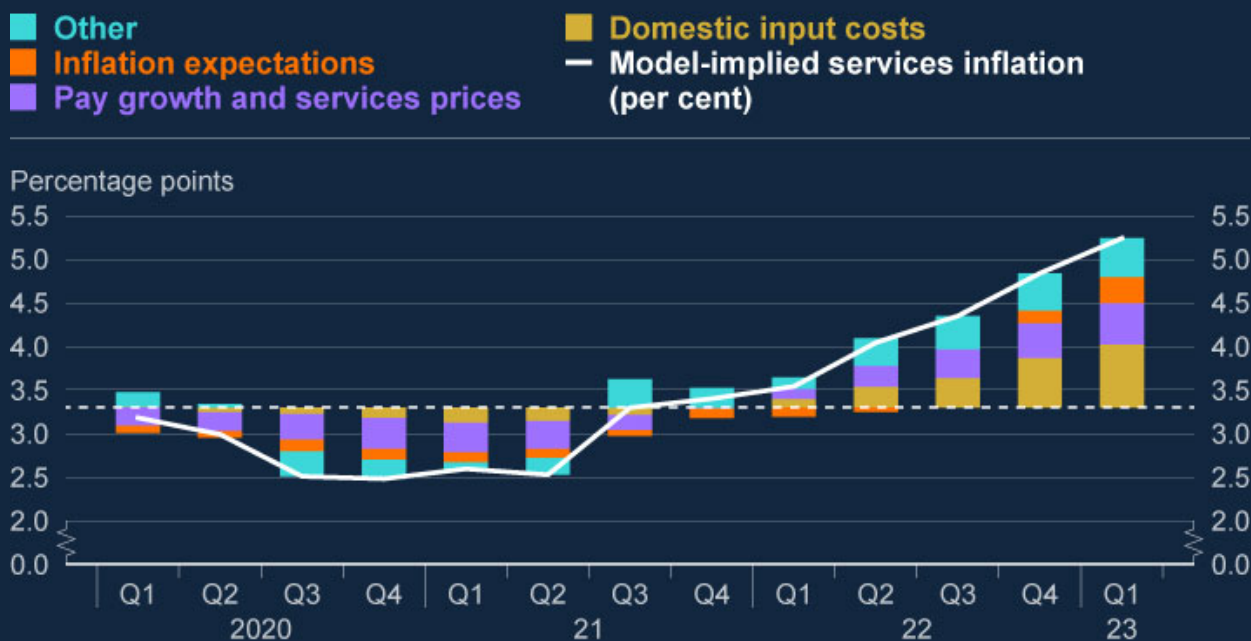
This conclusion is supported by new work by Bank staff that uses a much larger range of variables to help explain services inflation, and allows for non-linear relationships between them. For example, the contribution from pay growth, inflation expectations or labour market tightness to services inflation can change over time or interact with each other differently during certain periods, for example when inflation is high.

Chart 3.9 shows a decomposition of services inflation as predicted by such a model, which tracks the trend in actual services inflation reasonably well. It suggests that the largest contribution to the recent rise in services inflation has come from spillovers from

input costs (gold bars in Chart 3.9). But it also suggests that pay growth and past services inflation has played an important role (purple bars in Chart 3.9).

### Chart 3.9: Both higher input costs and pay growth appear to be playing a role in the rise in services inflation

Contributions to model-implied services inflation relative to 1997–2019 mean (a)



Sources: OECD, ONS, World Bank and Bank calculations.

(a) Outputs are from a machine-learning model based on a version of the model proposed by [Goulet Coulombe \(2022\)](#). Model outputs show one quarter ahead out-of-sample forecasts. Quarterly growth rates are annualised and quarterly fluctuations are smoothed. Bars show contributions to the model-implied services inflation forecast (white line) relative to the mean of 3.3% between 1997 and 2019 (dashed line). Domestic input costs include past domestic goods inflation, food inflation, energy inflation and input prices. Pay growth and services prices include ONS private sector regular pay growth, past services inflation, selected services inflation subcomponents and output prices. Inflation expectations bars include household and financial market-based measures of short and long-term inflation expectations. Other bars include the impact of the model-implied output gap estimate and international prices, which includes global commodity and export prices.

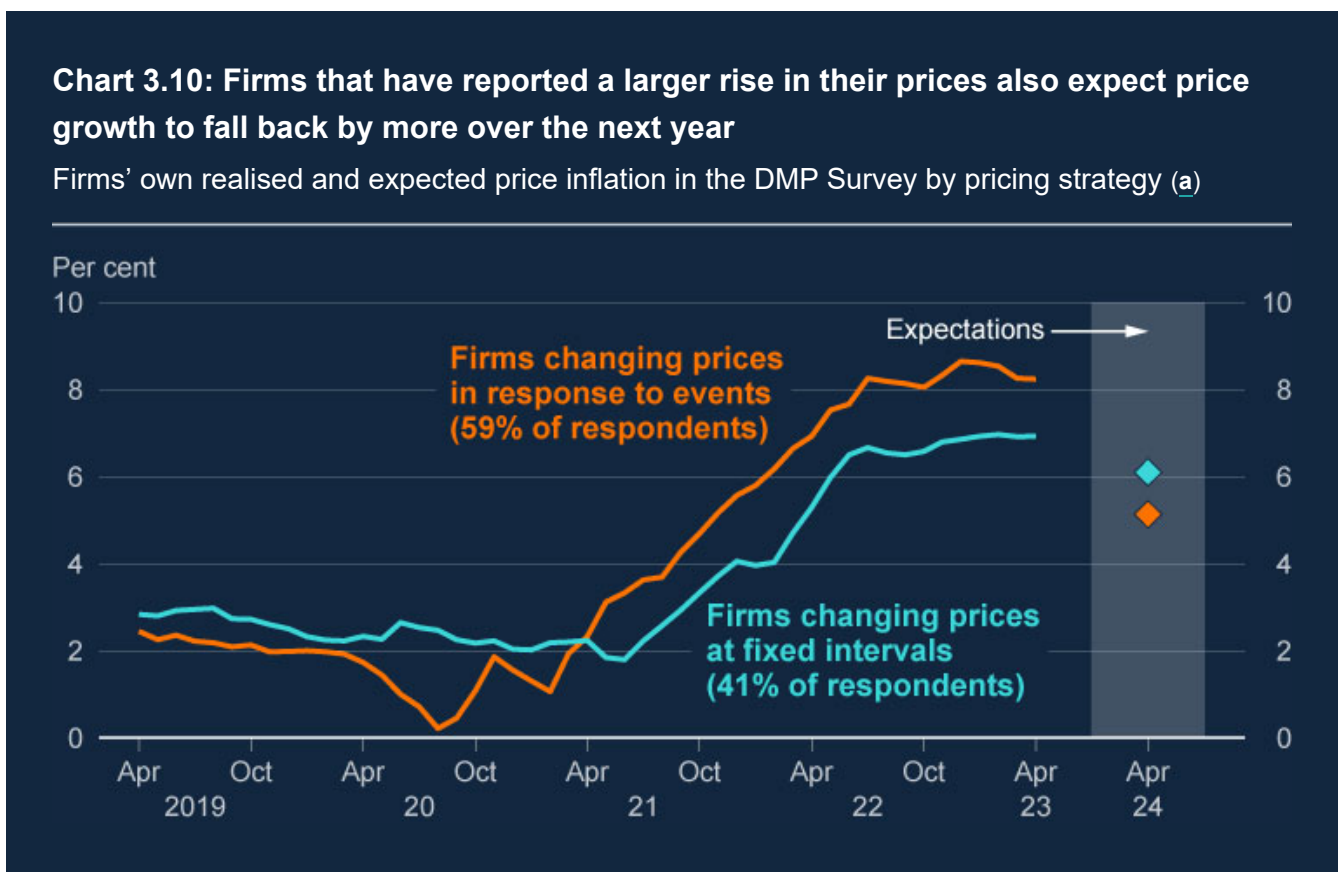
**...and the extent to which firms have already passed through these costs will influence the pace at which inflation declines.**

Firms in the DMP Survey reporting state-dependent pricing – where they respond to changes in demand or costs – are more likely to have passed through the cost shocks. Consistent with that, they report a larger past increase in their prices, and expect their own price inflation to fall markedly over the next year (orange line and diamond in Chart



3.10). In contrast, firms which change their prices at fixed intervals report a smaller increase in prices, and expect price growth to fall back only modestly (aqua line and diamond in Chart 3.10). Contacts of the Bank’s Agents report that many firms are still in the process of passing through higher costs.

How firms respond to falls in input costs will also matter. Some contacts of the Bank’s Agents, whose input costs had fallen, reported that they were not being automatically passed through to consumer prices in an attempt to rebuild margins.



Sources: DMP Survey and Bank calculations.

(a) Three-month moving averages. Realised price growth (lines) are responses to the question: ‘Looking back, from 12 months ago to now, what was the approximate % change in the average price you charge, considering all products and services?’. The latest data are from the April 2023 Survey. Expected price growth (diamonds) are responses to the question: ‘Looking ahead, from now to 12 months from now, what approximate % change in your average price would you expect in each of the following scenarios: lowest, low, middle, high and highest?’, and respondents are asked to assign a probability to each scenario which is used to create a weighted average expectation of price growth. These diamonds show the average response from the February to April 2023 Surveys. Figures in parentheses show the average share of respondents in the February to April 2023 Surveys.

### 3.3: The MPC's forecast for inflation

In the MPC's latest modal projection, CPI inflation is expected to decline somewhat less rapidly than in the February Report, and returns to the 2% target around three quarters later. This predominantly reflects higher expected food price inflation (Section 1).

There remain considerable uncertainties around the pace at which CPI inflation will return sustainably to the 2% target. The Committee has considered a range of analysis by Bank staff concerning the persistence of inflation in wages and domestic prices, some of which is set out in this chapter. The MPC continues to judge that the risks around the modal projection for CPI inflation are skewed significantly to the upside. This primarily reflects the possibility of more persistence in domestic wage and price setting. In particular, second-round effects may be asymmetric. As global prices cease to rise, and in some cases reverse, this should in time reduce the corresponding pressure on domestic inflation. But, to the extent that employees and firms are still seeking to recoup lost incomes, this unwinding of second-round effects may take longer than it did for them to emerge.

## Annex: Other forecasters' expectations

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This annex reports the results of the Bank's most recent survey of external forecasters. Responses were submitted in the two weeks to 25 April. Expectations throughout the forecast period are summarised in Chart A. These are compared to the MPC's modal projections, which are conditioned on a range of assumptions (Section 1.1) that may differ from those made by external forecasters.

On average, respondents expected GDP to rise by 0.7% in the four quarters to 2024 Q2 (left panel, Chart A). Responses ranged from -0.2% to 1.9%. Four-quarter GDP growth was then expected to rise, on average, to 1.6% in 2025 Q2 and 1.8% in 2026 Q2. The latter forecasts are higher than the MPC's modal projections of 0.7% in 2025 Q2 and 1.1% in 2026 Q2.

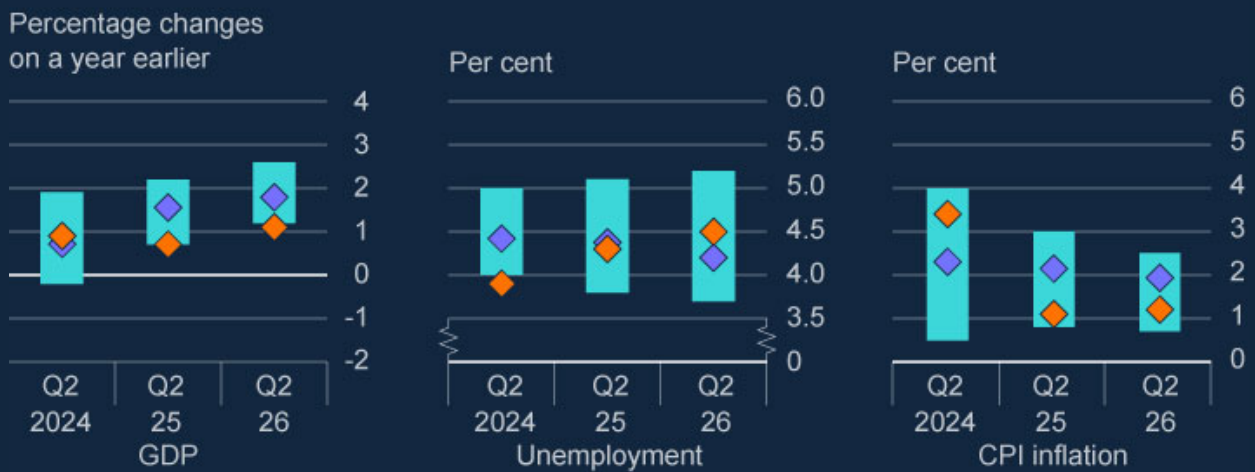
External forecasters expected an unemployment rate of 4.4% in 2024 Q2, higher than the MPC's projection (middle panel, Chart A). The average external forecast remains at 4.4% in 2025 Q2 and falls a little to 4.2% in 2026 Q2. By comparison, in the MPC's projection, the unemployment rate rises to 4.3% in 2025 Q2 and further to 4.5% in 2026 Q2.

CPI inflation was expected to fall, on average, to 2.3% in 2024 Q2, a faster decline than in the MPC's projection (right panel, Chart A). The average forecasts for 2025 Q2 and 2026 Q2 were broadly in line with the 2% target at 2.1% and 1.9% respectively, both above the MPC's projection.

**Chart A: At the three-year horizon, external forecasters expected four-quarter GDP growth to be 1.8%, the unemployment rate to be 4.2%, and CPI inflation to be 1.9%**

Projections for GDP, the unemployment rate and CPI inflation (a)

- Range of forecasters' projections
- ◆ MPC's modal projection
- ◆ Average of forecasters' projections



(a) On 12 May, the axis labels for unemployment were corrected.

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## Glossary and other information

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### Glossary of selected data and instruments

CPI – consumer prices index.

CPI inflation – inflation measured by the consumer prices index.

DMP – Decision Maker Panel.

ERI – exchange rate index.

GDP – gross domestic product.

HICP – harmonised index of consumer prices.

LFS – Labour Force Survey.

OIS – overnight index swap.

PCE – personal consumption expenditure.

PMI – purchasing managers' index.

### Abbreviations

CCS – Credit Conditions Survey.

CIPS – Chartered Institute of Purchasing and Supply.

ECB – European Central Bank.

EPG – Energy Price Guarantee.

FOMC – Federal Open Market Committee.

FPC – Financial Policy Committee.

GfK – Gesellschaft für Konsumforschung, Great Britain Ltd.

HMRC – His Majesty's Revenue and Customs.

IMF – International Monetary Fund.

LTV – loan to value.

mpc – marginal propensity to consume.

MPC – Monetary Policy Committee.

MTIC – missing trader intra-community.

OBR – Office for Budget Responsibility.

OECD – Organisation for Economic Co-operation and Development.

Ofgem – Office of Gas and Electricity Markets.

ONS – Office for National Statistics.

PAYE – Pay As You Earn.

PNFCs – private non-financial corporations.

PPP – purchasing power parity.

REC – Recruitment and Employment Confederation.

RTI – Real Time Information.

S&P – Standard & Poor's.

SME – small and medium-sized enterprise.

SVB – Silicon Valley Bank.

WEO – IMF World Economic Outlook.

## **Symbols and conventions**

Except where otherwise stated, the source of the data used in charts and tables is the Bank of England or the Office for National Statistics (ONS) and all data, apart from financial markets data and results from the Decision Maker Panel (DMP) Survey, are seasonally adjusted.

n.a. = not available.

Because of rounding, the sum of the separate items may sometimes differ from the total shown.

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On the horizontal axes of graphs, larger ticks denote the first observation within the relevant period, eg data for the first quarter of the year.