

**Bank of England**

# Monetary Policy Report

**Monetary Policy Committee**  
August 2022



---

# Monetary policy at the Bank of England

---

## 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.

---

## The Monetary Policy Committee

- Andrew Bailey, Chair
- Ben Broadbent
- Jon Cunliffe
- Jonathan Haskel
- Catherine L Mann
- Huw Pill
- Dave Ramsden
- Michael Saunders
- Silvana Tenreyro

PowerPoint™ versions of the Monetary Policy Report charts and Excel spreadsheets of the data underlying most of them are available at [www.bankofengland.co.uk/monetary-policy-report/2022/august-2022](https://www.bankofengland.co.uk/monetary-policy-report/2022/august-2022).

© Bank of England 2022

ISSN 2633-7819

---

## 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 baseline projections	10
1.2: Key judgements and risks	12
1.3: Comparison of the baseline projections with the May Report forecasts	26
<b>Box A: Key risks around the MPC's baseline projections</b>	<b>31</b>
<b>Box B: Monetary policy since the May 2022 Report</b>	<b>35</b>
<b>2: Current economic conditions</b>	<b>37</b>
2.1: Global developments and financial conditions	39
2.2: Domestic activity	48
2.3: Costs and prices	54
<b>Box C: Agents' update on business conditions</b>	<b>63</b>
<b>Box D: How have the interest rates facing households and firms responded to the rise in Bank Rate?</b>	<b>68</b>
<b>Box E: How does consumer price inflation compare across countries?</b>	<b>73</b>
<b>3: In focus – Why is the labour market so tight?</b>	<b>80</b>
3.1: How has the labour market evolved since the pandemic?	81
3.2: What is driving tightness in the labour market?	85
3.3: The outlook for the labour market	93
<b>Annex: Other forecasters' expectations</b>	<b>96</b>
<b>Glossary and other information</b>	<b>98</b>

---

---

## Monetary Policy Summary

---

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 3 August 2022, the MPC voted by a majority of 8–1 to increase Bank Rate by 0.5 percentage points, to 1.75%. One member preferred to increase Bank Rate by 0.25 percentage points, to 1.5%.

Inflationary pressures in the United Kingdom and the rest of Europe have intensified significantly since the May Monetary Policy Report and the MPC's previous meeting. That largely reflects a near doubling in wholesale gas prices since May, owing to Russia's restriction of gas supplies to Europe and the risk of further curbs. As this feeds through to retail energy prices, it will exacerbate the fall in real incomes for UK households and further increase UK CPI inflation in the near term. CPI inflation is expected to rise more than forecast in the May Report, from 9.4% in June to just over 13% in 2022 Q4, and to remain at very elevated levels throughout much of 2023, before falling to the 2% target two years ahead.

GDP growth in the United Kingdom is slowing. The latest rise in gas prices has led to another significant deterioration in the outlook for activity in the United Kingdom and the rest of Europe. The United Kingdom is now projected to enter recession from the fourth quarter of this year. Real household post-tax income is projected to fall sharply in 2022 and 2023, while consumption growth turns negative.

Domestic inflationary pressures are projected to remain strong over the first half of the forecast period. Firms generally report that they expect to increase their selling prices markedly, reflecting the sharp rises in their costs. The labour market has remained tight, with the unemployment rate at 3.8% in the three months to May and vacancies at historically high levels. As a result, and consistent with the latest Agents' survey, underlying nominal wage growth is expected to be higher than in the May Report over the first half of the forecast period.

Inflationary pressures are nevertheless expected to dissipate over time. Global commodity prices are assumed to rise no further, and tradable goods price inflation is expected to fall back, the first signs of which may already be evident. Although the labour market may loosen only slowly in response to falling demand, unemployment is expected to rise from 2023. Domestic inflationary pressures are therefore expected to subside in the second

half of the forecast period, as the increasing degree of economic slack and lower headline inflation reduce the pressure on wage growth. Monetary policy is also acting to ensure that longer-term inflation expectations are anchored at the 2% target.

The risks around the MPC's projections from both external and domestic factors are exceptionally large at present. There is a range of plausible paths for the economy, which have CPI inflation and medium-term activity significantly higher or lower than in the baseline projections in the August Monetary Policy Report. As a result, in coming to its assessment of the outlook and its implications for monetary policy, the Committee is currently putting less weight on the implications of any single set of conditioning assumptions and projections.

The August Report contains several projections for GDP, unemployment and inflation: a baseline conditioned on the MPC's current convention for wholesale energy prices to remain constant beyond the six-month point; an alternative projection in which energy prices follow their downward-sloping futures curves throughout the forecast period; and a scenario which explores the implications of greater persistence in domestic price setting than in the baseline. These are all conditioned on announced Government fiscal policies, including the Cost of Living Support package announced in May. There are significant differences between these projections in the latter half of the forecast period. However, all show very high near-term inflation, a fall in GDP over the next year and a marked decline in inflation thereafter.

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 continued to be subject to a succession of very large shocks, which will inevitably lead to volatility in output. Monetary policy will ensure that, as the adjustment to these shocks occurs, CPI inflation will return to the 2% target sustainably in the medium term.

The labour market remains tight, and domestic cost and price pressures are elevated. There is a risk that a longer period of externally generated price inflation will lead to more enduring domestic price and wage pressures. In view of these considerations, the Committee voted to increase Bank Rate by 0.5 percentage points, to 1.75%, at this meeting.

The MPC will take the actions necessary to return inflation to the 2% target sustainably in the medium term, in line with its remit. Policy is not on a pre-set path. The Committee will, as always, consider and decide the appropriate level of Bank Rate at each meeting. The

scale, pace and timing of any further changes in Bank Rate will reflect the Committee's assessment of the economic outlook and inflationary pressures. The Committee will be particularly alert to indications of more persistent inflationary pressures, and will if necessary act forcefully in response.

In the minutes of its May 2022 meeting, the Committee asked Bank staff to work on a strategy for selling UK government bonds (gilts) held in the Asset Purchase Facility and committed to providing an update at its August meeting. Based on this analysis, the Committee is provisionally minded to commence gilt sales shortly after its September meeting, subject to economic and market conditions being judged appropriate and to a confirmatory vote at that meeting.

# 1: The economic outlook

Near-term inflationary pressures in the UK and the rest of Europe have intensified significantly since the May Report. That reflects a near doubling in wholesale gas prices, due to Russia's restrictions on its supply of gas to Europe and the risk of further curbs. This latest rise in gas prices, and to a lesser extent, a tightening in financial conditions, have led to another significant deterioration in the outlook for world activity, with economies in Europe, including the UK, particularly severely affected. The UK is projected to enter recession from 2022 Q4. These developments have further greatly accentuated the extent to which, in the MPC's baseline projection, UK CPI inflation is well above the 2% target over the first 18 months and well below the target in three years' time (Table 1.A).

In line with the MPC's conventions, the baseline forecasts and the fan charts around them are conditioned on: the path of Bank Rate implied by financial markets, which rises to 3.0% in 2023 Q2, before falling to 2.2% at year three; and wholesale energy prices following their futures curves for the next six months and then remaining constant. Such a path for energy prices would be extremely high by historical standards throughout the three-year forecast period.

The uncertainty around the outlook is exceptionally high, especially for energy prices. As an alternative to the baseline forecast, Box A sets out a projection in which energy prices follow their downward-sloping futures curves throughout the forecast period, though they remain well above their pre-pandemic levels. That would result in a very different economic outlook in the second half of the forecast than in the baseline projection. In view of the exceptional level of uncertainty, the Committee puts more weight than it would normally on such an alternative projection.

There are also unusually large uncertainties and risks around the outlook for domestic inflationary pressures. These are also set out in Box A.

CPI inflation is expected to rise further and peak at just over 13% in 2022 Q4. That is much higher than forecast in May. This overwhelmingly reflects the sharp increase in gas prices since May, caused by Russia. The changes Ofgem has announced to the method for updating the household energy price cap are also expected to push up CPI inflation in the near term, though to a much lesser extent. Typical annual household fuel bills are projected to rise by around 75% in October

when the price cap is next reset compared with the assumption of an increase of 40% in the May Report. That would mean those bills are around three times higher than a year earlier.

Though responsible for much less of the rise in headline inflation, domestic inflationary pressures have also increased and are projected to remain strong in the near term. Consistent with the latest Agents' employment and pay survey, nominal private sector regular wage growth is expected to rise by more than in the May projection over the first half of the forecast. That reflects the tighter-than-expected labour market and upward pressure on pay from higher price inflation, as firms seek to retain and recruit staff. Firms generally report that they expect to increase their selling prices markedly, following the sharp rises in their costs, to protect their margins.

Abstracting from temporary factors, underlying UK GDP growth has slowed and the UK economy is forecast to enter recession later this year. Output is projected to fall in each quarter from 2022 Q4 to 2023 Q4. Growth thereafter is very weak by historical standards. The contraction in output and weak growth outlook beyond that predominantly reflect the significant adverse impact of the sharp rises in global energy and tradable goods prices on UK household real incomes.

In the alternative projection in which energy prices follow their downward-sloping futures curves throughout the forecast period, the UK economy still enters recession, but activity is stronger in the second half of the forecast, as the pressures on real incomes ease to a greater extent (Table 1.B). The peak-to-trough falls in output in the baseline and alternative projections are 2¼% and 1½% respectively.

Given continued elevated recruitment difficulties due to the fall in the labour force since the start of the pandemic and strong labour demand, firms are forecast to respond initially to the weakness in demand by using their existing inputs less intensively. So although economic slack emerges in 2022 Q4, the labour market is expected to remain tight over the next year. Unemployment only starts to rise above its current level from mid-2023, but it reaches 6¼% at the end of the forecast period, with slack of 3¾% of potential GDP (Table 1.A).

In the alternative projection in which energy prices follow their downward-sloping futures curves throughout the forecast period, unemployment and economic slack do not rise by as much as in the baseline projection, given the less weak path of activity (Table 1.B).

In the baseline forecast, after the peak in 2022 Q4, CPI inflation is projected to fall to 9.5% in a year's time, as the impact of the assumed stabilisation of global energy prices, and falls in tradable goods prices, outweigh rising domestic pressures. Inflation then falls sharply to the 2% target in two years' time, as external influences continue to wane and domestic factors fade. CPI inflation falls to 0.8%, well below the target, in three years' time reflecting a further weakening in domestic pressures.

In the alternative projection in which energy prices follow their downward-sloping futures curves throughout the forecast period, CPI inflation is well below the baseline projection at years two and three (Table 1.B).

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

	2022 Q3	2023 Q3	2024 Q3	2025 Q3
GDP (c)	2.3 (2.9)	-2.1 (-0.8)	0.0 (0.4)	0.4
CPI inflation (d)	9.9 (9.5)	9.5 (5.9)	2.0 (1.8)	0.8
LFS unemployment rate	3.7 (3.5)	4.4 (4.1)	5.5 (4.8)	6.3
Excess supply/ <b>Excess demand</b> (e)	+¾ (+¼)	-2¼ (-1½)	-3¼ (-2)	-3¾
Bank Rate (f)	1.6 (1.5)	3.0 (2.6)	2.5 (2.3)	2.2

(a) Modal projections for GDP, CPI inflation, LFS unemployment and excess supply/excess demand. Figures in parentheses show the corresponding projections in the May 2022 Monetary Policy Report.

(b) Unless otherwise stated, the projections shown in this section are conditioned on: Bank Rate following a path implied by market yields; the Term Funding Scheme and Term Funding Scheme with additional incentives for Small and Medium-sized Enterprises; the Recommendations of the Financial Policy Committee and the current regulatory plans of the Prudential Regulation Authority; the Office for Budget Responsibility's assessment of the Government's tax and spending plans as set out in the March 2022 Economic and Fiscal Outlook and the May Cost of Living Support package; commodity prices following market paths for six months, then held flat; the sterling exchange rate remaining broadly flat; and the prevailing prices of a broad range of other assets, which embody market expectations of the future stocks of purchased gilts and corporate bonds. The main assumptions are set out in the ['Download the chart slides and data – August 2022'](#).

(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.

**Table 1.B: Forecast summary of the alternative projection in which energy prices follow their futures curves throughout the forecast period (a)**

	2022 Q3	2023 Q3	2024 Q3	2025 Q3
GDP (b)	2.3 (2.3)	-1.5 (-2.1)	0.6 (0.0)	0.8 (0.4)
CPI inflation (c)	9.9 (9.9)	8.4 (9.5)	0.9 (2.0)	0.3 (0.8)
LFS unemployment rate	3.7 (3.7)	4.0 (4.4)	4.6 (5.5)	5.1 (6.3)
Excess supply/ <b>Excess demand</b> (d)	+ <sup>3</sup> / <sub>4</sub> (+ <sup>3</sup> / <sub>4</sub> )	-1 <sup>3</sup> / <sub>4</sub> (-2 <sup>1</sup> / <sub>4</sub> )	-2 <sup>1</sup> / <sub>4</sub> (-3 <sup>1</sup> / <sub>4</sub> )	-2 <sup>1</sup> / <sub>2</sub> (-3 <sup>3</sup> / <sub>4</sub> )
Bank Rate (e)	1.6 (1.6)	3.0 (3.0)	2.5 (2.5)	2.2 (2.2)

(a) Figures in parentheses show the corresponding projections from the MPC's baseline forecast.

(b) Four-quarter growth in real GDP.

(c) Four-quarter inflation rate.

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

(e) 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 baseline projections

In line with the Committee's conventions, the baseline projections are conditioned on:

- The paths for policy rates implied by financial markets. Since the May Report, interest rates have increased materially in a number of advanced economies (Chart 2.7). In the UK, the market-implied path for Bank Rate, as captured in the 15-day average of forward interest rates to 26 July, was consistent with Bank Rate reaching 3.0% in 2023 Q2, 50 basis points higher than in May, before falling back to 2.2% by the end of the projection.
- A broadly flat path for the sterling effective exchange rate that is around 3% lower than in May (Table 1.C and Section 2.1).
- Fiscal policy evolving in line with announced Government policies to date. The most recent of these was the May Cost of Living Support package. Bank staff estimate that this will raise the level of GDP by a peak of around ½% in 2022 Q4 and 2023 Q1 before fading (Section 2.2). Fiscal policy as a whole tightens over the projection.
- Wholesale energy prices following their respective futures curves for the first six months of the projection and then remaining constant (Table 1.C). Based on the 15-day average to 26 July, gas futures prices for end-2022 have nearly doubled since the May Report (Chart 2.15) and are almost seven times higher than implied by futures curves a year ago. The recent sharp increases in gas prices are mostly due to Russia's

restrictions on its supply of gas to Europe and the risk of further curbs. Higher gas prices have also led to a sharp pickup in wholesale electricity prices, which have almost trebled relative to a year earlier. Gas prices have continued to be highly volatile and have risen above the 15-day average recently.

- Household energy prices evolving in line with estimates of the Ofgem price cap. Bank staff estimate that Ofgem will raise its retail energy price cap by around 75% in October, compared to the assumption of around 40% in the May Report. That would increase the typical annual household fuel bill from just under £2,000 to around £3,500, three times higher than a year earlier. That is overwhelmingly due to the very substantial rise in wholesale gas futures prices since the cap was last reset in April. To a much lesser extent, it reflects Ofgem's announced changes to the method for updating the cap, which were shared with the Bank in advance of publication. These changes include putting more weight on the most recent sharp increases in wholesale gas prices. The switch to resetting the cap on a quarterly, rather than semi-annual basis, will only start to affect the price cap from next year.
- Oil prices following their respective futures curves for the first six months of the projection and then remaining constant. Sterling oil prices have fallen since mid-June, reflecting the weaker outlook for global activity, but are almost double their level a year earlier.
- Non-energy commodity prices following their respective futures curves for the first six months and beyond that remaining constant. A wide range of non-energy commodity prices, for example agricultural commodities and metals, have fallen since the May Report, partly reflecting the weaker outlook for global activity.

**Table 1.C: Conditioning assumptions underlying the MPC's baseline projections (a)**  
(b)

	Average 1998–07	Average 2010–19	2020	2021	2022	2023	2024
Bank Rate (c)	5.0	0.5	0.1	0.1 (0.1)	2.4 (1.9)	2.9 (2.6)	2.4 (2.2)
Sterling effective exchange rate (d)	100	82	78	82 (82)	79 (81)	78 (81)	78 (81)
Oil prices (e)	39	78	45	79 (79)	97 (97)	93 (97)	93 (97)
Gas prices (f)	29	53	41	238 (238)	420 (242)	327 (242)	327 (242)
Nominal government expenditure (g)	7½	2¼	11¾	7½ (7½)	3½ (2¾)	2¼ (3)	2½ (2½)

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 May 2022 Monetary Policy Report.

(b) Financial market data are based on averages in the 15 working days to 26 July 2022. 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. Projection based on monthly Brent futures prices for two quarters, then held flat.

(f) Pence per therm. Projection based on monthly natural gas futures prices for two quarters, then held flat.

(g) Annual average growth rate. Nominal general government consumption and investment. Projections are based on the OBR's March 2022 Economic and Fiscal Outlook and incorporate the May Cost of Living Support package. Historical data based on NMRP+D7QK.

## 1.2: Key judgements and risks

**Key judgement 1: in the baseline forecast, persistently high gas and other commodity prices continue to put upward pressure on global consumer price inflation and depress global growth in the near term before their effects gradually dissipate.**

Inflationary pressures in the UK and the rest of Europe have intensified significantly overall since the May Report, despite the recent falls in oil and non-energy commodity prices, and growth prospects have weakened materially. This reflects the further very sharp increase in wholesale gas prices, due to Russia's restrictions on its supply of gas to Europe and the risk of further curbs (Section 1.1).

Sustained disruption to global supply chains, and the shift in global demand towards durable goods and away from services, have continued to put significant upward pressure on tradable goods prices. Bank staff estimate that on a UK-weighted basis, four-quarter world export price inflation, including energy, rose to 16% in 2022 Q2. This in turn has boosted consumer price inflation substantially in many countries.

But four-quarter world export price inflation is projected to fall sharply over the next year and turn negative in mid-2023. This is largely due to the recent stabilisation of many commodity prices. It also reflects the Committee's expectations that global tradable goods prices will start to fall back. That is due to two main factors. The first is that supply chain disruption is assumed to start to ease from Q4 this year, consistent with intelligence from the Bank's Agents (Box C). Second, global demand is expected to continue to shift away from durable goods to services, particularly in the US.

Russia's invasion of Ukraine is significantly adversely affecting world activity. The recent tightening in financial conditions also weighs on global activity over the forecast period, though to a much lesser extent (Section 2.1). As a result, in the MPC's baseline forecast, annual UK-weighted world GDP growth is projected to slow from 5½% in 2021 to 2½% in 2022, 1% in 2023 and 1½% in 2024, below pre-pandemic rates (Table 1.E). This weighs materially on the demand for UK exports, in addition to the adverse direct impact on UK real incomes and spending from higher global energy and tradable goods prices.

**There are considerable risks around the projections for global inflation and activity, which largely depend on how current geopolitical tensions evolve.**

An upside risk to world prices is that the disruption to the supply of gas from Russia to Europe is even greater than embodied in the Committee's assumed path for gas prices in the baseline forecast.

An associated risk is that the available supply of other commodities, for example agricultural products and tradable goods, is hampered by more than assumed. That could stem from developments around Russia's invasion of Ukraine, or if new restrictions are introduced to contain Covid.

Higher commodity and tradable goods prices would put more upward pressure on global consumer price inflation and further restrain global activity. The latter would be exacerbated if accompanied by a further tightening in global financial conditions.

A risk not explicitly captured by the baseline projection for CPI inflation is that the weight of energy prices in the CPI basket is likely to rise over the forecast period, given the large increase in the share of energy spending over the past year. There is considerable uncertainty around how much the weight of energy may rise when the weights are next updated by the ONS in 2023 Q1, how much the weights of the other components of the CPI basket may change, and the overall impact these will have on CPI inflation. There are also uncertainties over how the ONS will treat some of the Government's energy support measures in the calculation of the CPI, which could pose a downside risk. Overall, the Committee judges that there are upside risks to the CPI projection in the year from 2023 Q1. This risk fades thereafter.

There are also downside risks to world prices. One is that the supply of agricultural commodities is higher than expected following the recent agreement between Ukraine and Russia to resume Ukraine's grain exports.

Disruption to the supply of commodities and tradable goods could also ease earlier and by a greater extent than assumed, for example if the geopolitical tensions are resolved more quickly or it is easier to substitute away from the affected commodities and tradable goods. This would be consistent with the recent falls in some indicators of supply chain disruption, such as delivery times and some shipping rates, persisting or falling further (Section 2.1).

Box A sets out an alternative projection in which energy prices follow their downward-sloping futures curves throughout the forecast period. In view of the exceptional level of uncertainty, the Committee puts more weight than it normally would on such an alternative projection.

Lower commodity and tradable goods prices would put downward pressure on global consumer price inflation and boost global activity.

**Key judgement 2: given the sharp decline in household real incomes, consumer spending falls over the next year and the UK economy enters recession. Consumption falls by less than income, however, as households, in aggregate, reduce their saving. GDP growth is weak thereafter, even though the pressures on real incomes ease somewhat.**

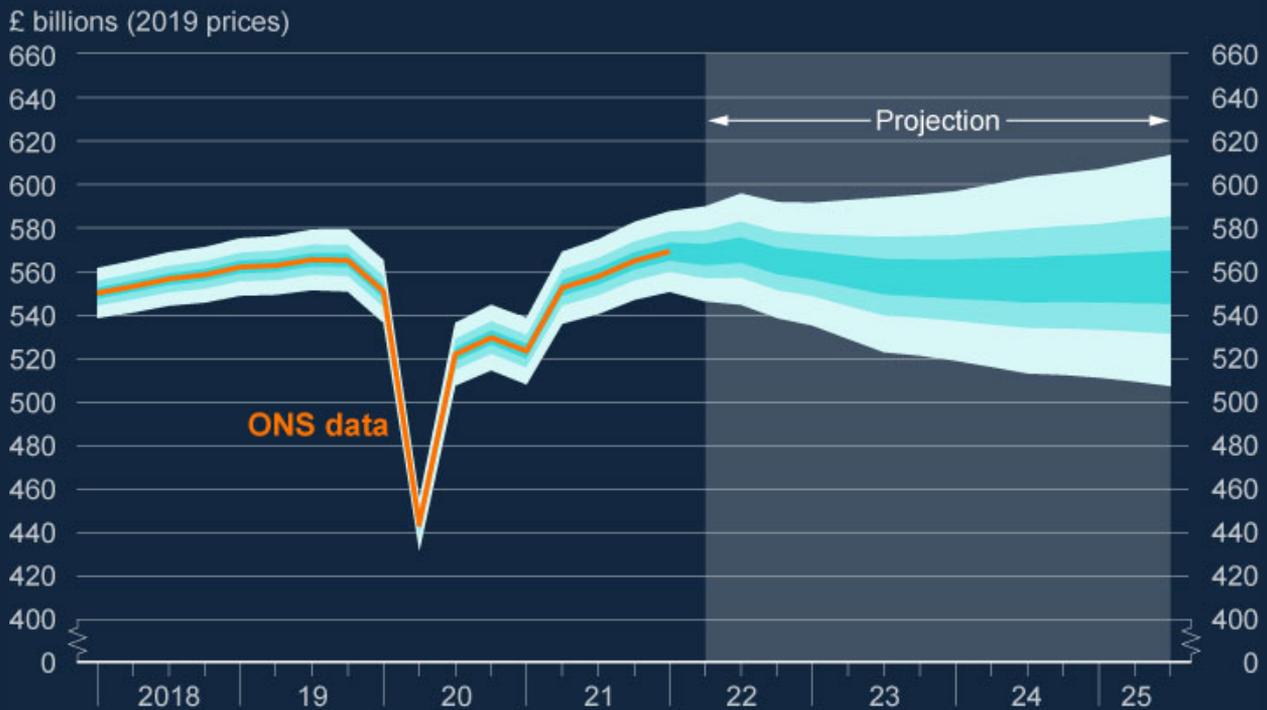
Bank staff estimate that underlying quarterly UK GDP growth slowed from 0.9% in 2022 Q1 to 0.5% in 2022 Q2. It is expected to slow further to 0.2% in Q3. This reflects the adverse impact of the very sharp increases in energy, non-energy commodities and tradable goods prices on UK household real incomes and spending.

These pressures will intensify in October when the very large increases in wholesale energy prices feed through to households following the reset of the Ofgem price cap (Section 1.1). As a result, household real incomes are projected to fall further and sharply, and GDP is expected to decline by nearly 1% in 2022 Q4 (Chart 1.1). GDP is forecast to fall further in the subsequent four quarters, as real incomes continue to decline.

In the alternative projection in which energy prices follow their downward-sloping futures curves throughout the forecast period, the UK economy still enters recession, but activity is stronger in the second half of the forecast, as the pressures on real incomes ease to a greater extent. The peak-to-trough falls in output in the baseline and alternative projections are 2¼% and 1½% respectively.

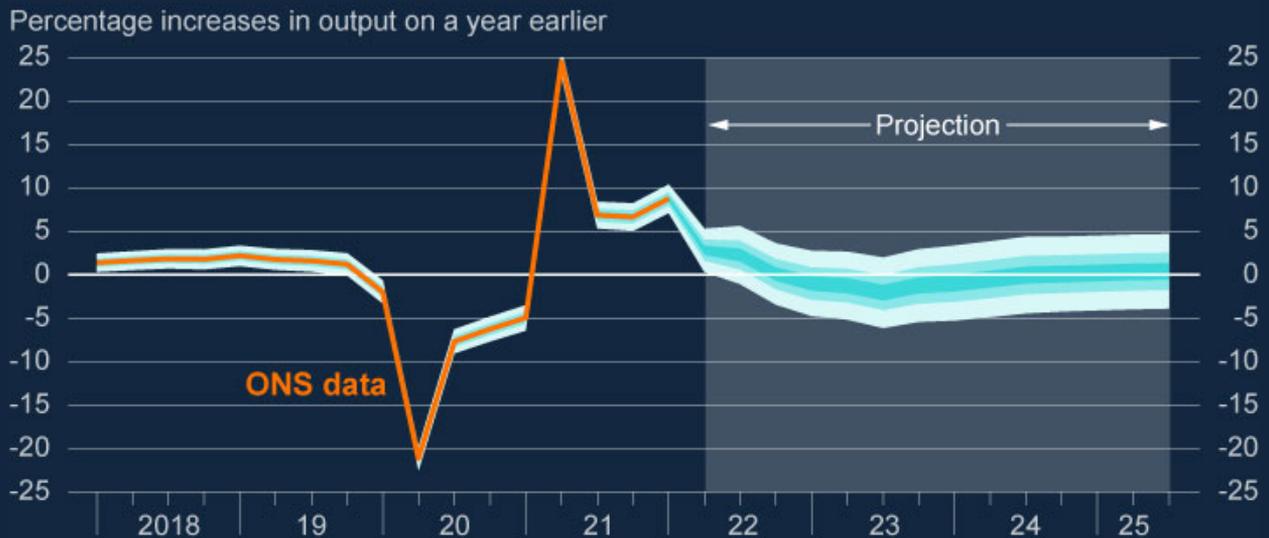
In the baseline projection, calendar year GDP growth is -1½% in 2023 and -¼% in 2024 (Table 1.E). Four-quarter GDP growth picks up to around ½% by the end of the projection (Chart 1.2), as the pressures on household incomes ease somewhat, although GDP growth is well below pre-pandemic rates.

**Chart 1.1: GDP projection based on market interest rate expectations, other policy measures as announced**



The fan charts depict the probability of various outcomes for GDP (in Chart 1.1) and GDP growth (in Chart 1.2). They have been conditioned on the assumptions in Table 1.A footnote (b). 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 (in Chart 1.1) and GDP growth (in Chart 1.2) 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 (in Chart 1.1) or GDP growth (in Chart 1.2) 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 or 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 or 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.

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



See footnote for Chart 1.1.

Real post-tax household income is projected to fall by 1½% in 2022 (Table 1.E), despite the near-term support from fiscal policy (Section 2.2) and the resilience of the labour market (Section 3). Thereafter, it is projected to fall by 2¼% in 2023 before rising by ¾% in 2024.

The Committee continues to assume that some households absorb part of the fall in their real incomes by saving less of their current income or by spending some of their stock of savings. Consistent with this, a quarter of respondents to a recent ONS survey, who are facing a rise in the cost of living, expect to use their savings to support their consumption (Section 2.2). As a result, consumption falls by a little less than household income over the next 18 months. Calendar year household spending growth is -¾% in 2023 before picking up to 1% in 2024. The household saving rate is therefore forecast to decline from 5% in 2022 Q3 to 3½% at the end of next year, lower than its average in the decade preceding the pandemic of 7½% (Table 1.E). It then rises to 4¾% by the end of the projection as households increase their precautionary saving given the projected increase in unemployment (Key judgement 3).

Business investment growth picks up in the near term, as some spending is expected to be brought forward in response to the Government's capital allowance super-deduction. This masks more underlying weakness, as capital spending is held back over the

projection by elevated uncertainty, the weakness in overall demand, the sharp increases in firms' costs, and the rising path for Bank Rate in the MPC's conditioning assumption. Business investment growth is negative in years two and three of the forecast period.

Lower UK demand growth over the projection also reflects the slowing in the world economy (Key judgement 1) and the tightening in fiscal and monetary policy, which both evolve in line with their conditioning assumptions (Section 1.1).

In projections conditioned on the alternative assumption of constant interest rates at 1.75%, activity is stronger than in the MPC's forecasts conditioned on market rates. The UK economy still enters recession, however, as the main driver of the contraction in output is the sharp fall in real incomes.

**The risks around the projection for GDP growth in the baseline projection are judged to be balanced.**

It is notable that measures of business sentiment, although weaker than at the time of the May Report, remain consistent with activity continuing to grow. This might suggest greater momentum in demand than the MPC is assuming.

Consumer spending could be stronger than projected if the labour market is more resilient (Key judgement 3) or energy prices are lower than assumed in the Committee's baseline projection (Box A). Both might encourage households to spend more of the additional savings they have accumulated, in aggregate, during the pandemic.

Demand growth could slow by more than expected if households cut back their spending more aggressively in the face of the very significant falls in their real incomes. The stock of savings accumulated by households, in aggregate, during the pandemic should support some households' ability to smooth consumption temporarily as real incomes decline. But the rise in savings during the pandemic has not occurred evenly – it is more marked among higher-income households – so not everyone may be in a position to do this. Energy and food bills form a larger share of lower-income households' spending, so their ability to use savings to support their consumption may be limited.

In addition, and even for higher-income households, the deterioration in the economic outlook may increase households' uncertainty about the future by more than assumed, leading them to increase their precautionary saving and lower their spending further. Higher uncertainty would also tend to lower capital spending by firms.

**Key judgement 3: given elevated recruitment difficulties and strong labour demand, firms respond initially to the weakness in spending by using their existing inputs less intensively. So although economic slack emerges in 2022 Q4, the labour**

**market remains tight over the next year and unemployment only starts to rise above its current level in mid-2023. It reaches 6¼% at the end of the forecast period, with slack building to 3¾% of potential GDP.**

Most indicators suggest that there is currently a margin of excess demand across the economy as a whole (Table 1.A). Many surveys suggest above-average levels of capacity utilisation. The labour market is tight, with the unemployment rate of 3.8% in the three months to May. That is an historically low level and below the MPC's assessment of the medium-term equilibrium rate of unemployment of just above 4%. Firms continue to report significant recruitment difficulties and vacancies remain very high (Section 3). The vacancy to unemployment ratio, a measure of labour market tightness, remains elevated, with the stock of vacancies now broadly equal to the stock of unemployed people.

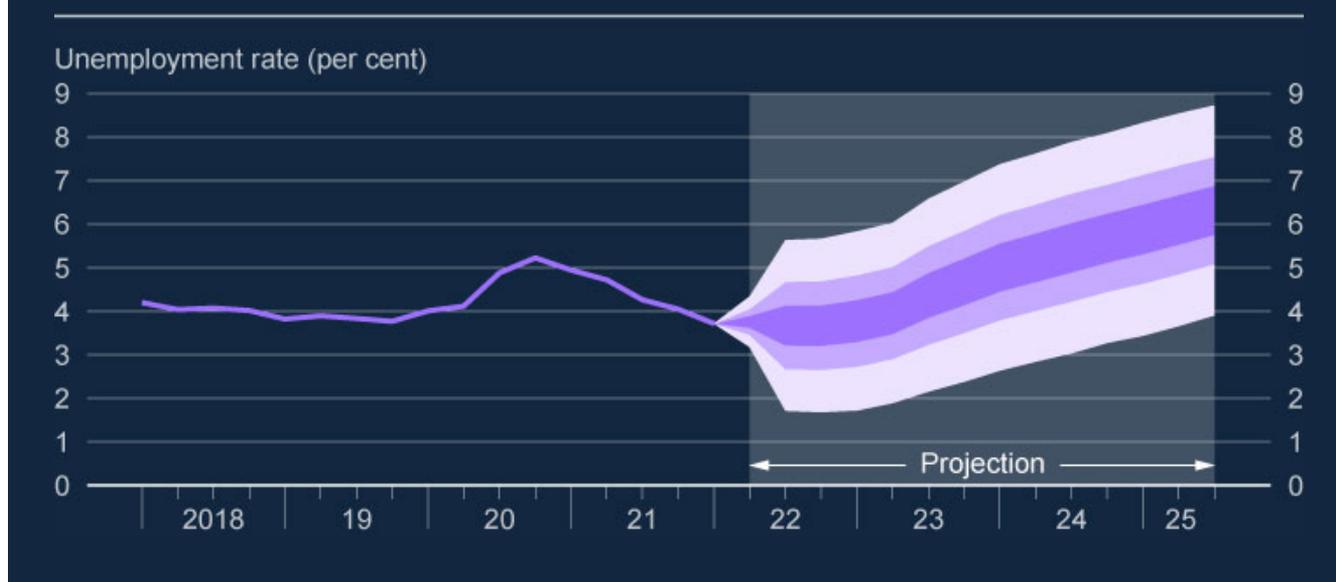
The tightness of the labour market partly reflects the fall in the labour force since the start of the pandemic, and the larger decline relative to its pre-Covid trend, which are in part due to an increase in the number of people with long-term health conditions. The tight labour market also reflects strong labour demand, which is above pre-pandemic levels (Section 3).

The Committee judges that the labour market is currently tighter than previously thought. In particular, it has assumed that the ratio of vacancies to unemployment is giving a better real-time indication of the balance between the demand for and supply of labour than the gap between unemployment and the medium-term equilibrium rate of unemployment (Section 3). The ratio of vacancies to unemployment implies a greater degree of labour market tightness and more upward pressure on wage growth.

Given the intensity of recruitment difficulties amid strong labour demand, firms are expected to respond initially to the weakness in demand by using their existing inputs less intensively. So although economic slack begins to emerge in 2022 Q4, the labour market is expected to remain tight over the next year. This is consistent with the Agents' latest employment and pay survey.

Unemployment rises from its current level from mid-2023 to 6¼% at the end of the forecast period (Chart 1.3), given the very weak outlook for demand growth. Economic slack rises to 3¾% of potential GDP (Table 1.A).

**Chart 1.3: Unemployment 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 the assumptions in Table 1.A footnote (b). The coloured bands have the same interpretation as in Charts 1.1 and 1.2, and portray 90% of the probability distribution. The calibration of this fan chart takes account of the likely path dependency of the economy, where, for example, it is judged that shocks to unemployment in one quarter will continue to have some effect on unemployment in successive quarters. The fan begins in 2022 Q2, a quarter earlier than for CPI inflation. That is because Q2 is a staff projection for the unemployment rate, based in part on data for April and May. The unemployment rate was 3.8% in the three months to May, and is projected to be 3.8% in Q2 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 the alternative projection in which energy prices follow their downward-sloping futures curves throughout the forecast period, unemployment and economic slack do not rise by as much as in the baseline projection, given the less weak path of activity (Table 1.B). In projections conditioned on the alternative assumption of constant interest rates at 1.75%, unemployment rises by around  $\frac{3}{4}$  percentage point less than in the MPC's forecast conditional on market rates.

**The risks around unemployment in the baseline projection are judged to be balanced.**

The labour market may remain tighter for longer than assumed for a number of reasons (Section 3). If the current tightness in the labour market reflects much more labour being demanded now than is available, there may be room for labour demand to fall for longer before leading to a rise in unemployment. Labour hoarding as demand softens would also prolong the tightness in the labour market. Moreover, the Agents' employment and pay

survey suggests that firms expect employment growth over the next year to be similar to that over the past 12 months. If that transpired, other things equal, the unemployment rate would fall and the labour market would tighten further.

Alternatively, more of the fall in participation rates during the pandemic could prove to be persistent. For example, the share of people with long-term health conditions and the likelihood they participate in the labour market may not return to previous trends or people may continue to retire earlier than expected.

Another risk is that the acute recruitment difficulties firms are facing reflect some frictions in the matching of workers and jobs and have been accompanied by a rise in the medium-term equilibrium rate of unemployment.

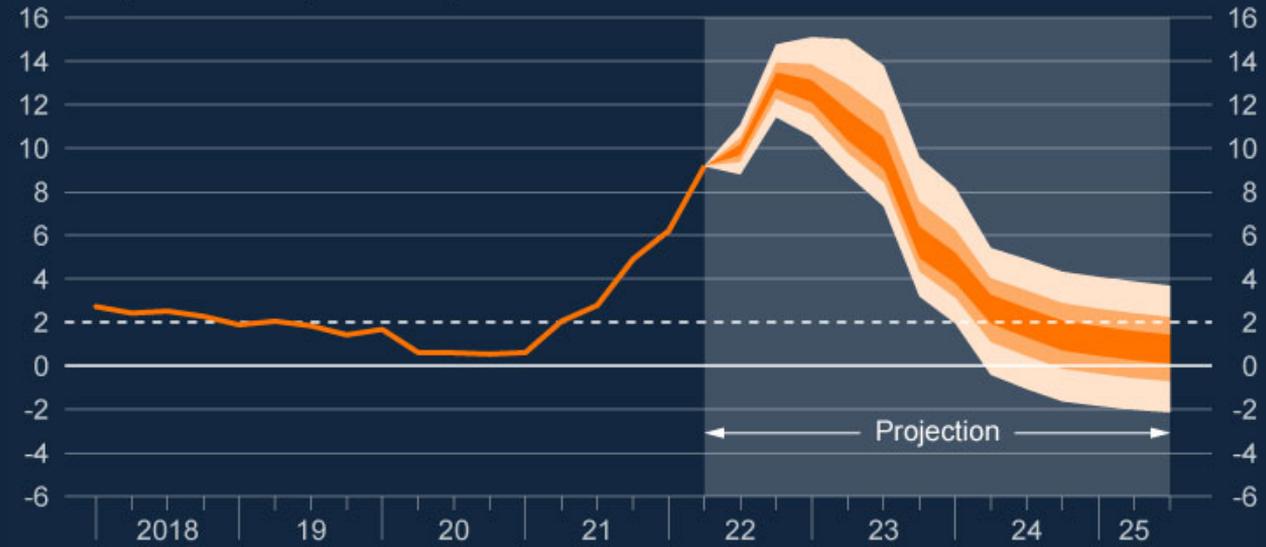
The labour market could also loosen more rapidly than assumed. Some recruiters have started to report that greater economic uncertainty is causing some firms to delay hiring decisions. Staff placements in the June KPMG/REC UK Report on Jobs fell back notably, although candidate shortages were also reported to be a factor behind that. The Covid-related factors weighing on participation could also unwind faster than assumed in the baseline projections if, for example, the very recent decline in inactivity continues at the same pace over the coming months. Labour supply growth could also be affected by how households respond to the fall in their real incomes. Households may seek to boost their real incomes through working more, which could involve those currently inactive re-entering the labour market or those already in the labour force seeking to work longer hours.

**Key judgement 4: domestic price pressures remain strong over the first half of the forecast, as nominal wage growth strengthens and many companies are able to protect their margins. But the building degree of economic slack moderates these forces and inflation expectations adjust downwards quickly as external pressures abate and inflation itself begins to fall. Domestic pressures therefore fade and, conditioned on the market yield curve, inflation is around the 2% target in two years' time and well below it in three years.**

CPI inflation is expected to rise further and peak at just over 13% in 2022 Q4 (Chart 1.4). That is 3 percentage points higher than forecast in the May Report. This overwhelmingly reflects the sharp increase in gas futures prices since May, due to Russia restricting the supply of gas to Europe and the risk of further curbs. To a lesser extent, it reflects the changes Ofgem have announced to their method for updating the household energy price cap (Section 1.1).

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

Percentage increase in prices on a year earlier



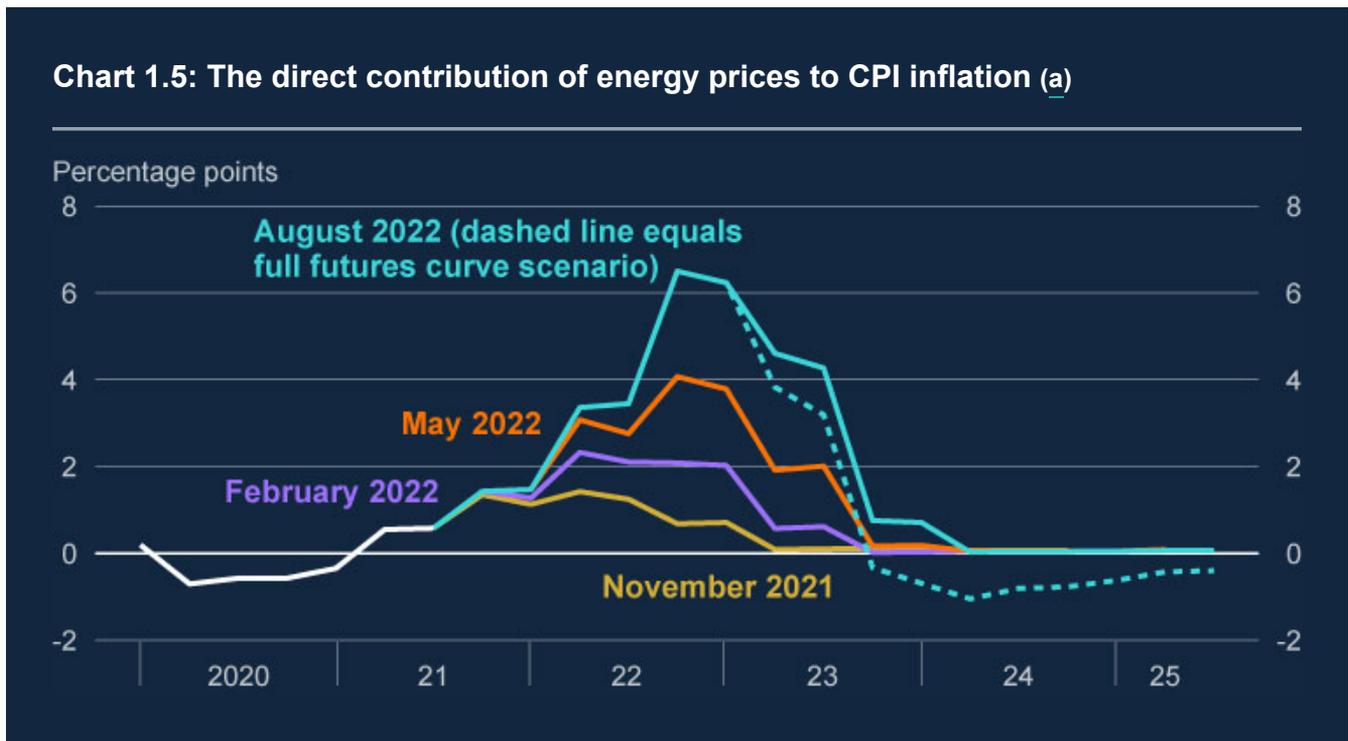
The fan chart depicts the probability of various outcomes for CPI inflation in the future. It has been conditioned on the assumptions in Table 1.A footnote (b). If economic circumstances identical to today's were to prevail on 100 occasions, the MPC's best collective judgement is that inflation in any 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 2022 Inflation Report for a fuller description of the fan chart and what it represents.

**Table 1.D: The quarterly forecast for CPI inflation in the MPC's baseline scenario (a)**

	2022		2023				
	Q3	Q4	Q1	Q2	Q3	Q4	
CPI inflation	9.9	13.1	12.6	10.8	9.5	5.5	
	2024			2025			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3
CPI inflation	4.3	2.6	2.0	1.4	1.2	0.9	0.8

(a) Four-quarter inflation rate.

The direct contribution of energy prices to CPI inflation alone is expected to peak at 6½ percentage points in 2022 Q4 (Chart 1.5). That is substantially higher than in the Committee’s forecasts over the past year, given the successive very sharp increases in global energy prices over this period. Together with higher indirect effects from energy prices, which can affect both goods and services prices, this accounts for most of the much higher outlook for CPI inflation over the first half of the forecast since May.



(a) Energy prices include fuels and lubricants, electricity, gas and other fuels.

Though responsible for much less of the rise in headline inflation, domestic inflationary pressures have also increased and are projected to be a little stronger than previously expected. In particular, it appears that the labour market is currently tighter than the Committee previously assumed (Key judgement 3). Together with a little more upward pressure on pay from higher price inflation, nominal private sector regular pay growth rises by more than in May over the first half of the forecast. This is broadly consistent with the Agents’ survey on employment and pay, which suggests that firms expect pay settlements to average 6% over the next year, higher than the equivalent survey set out in the February Report (Section 2.3). As a result, CPI inflation is a little higher throughout the projection from this judgement.

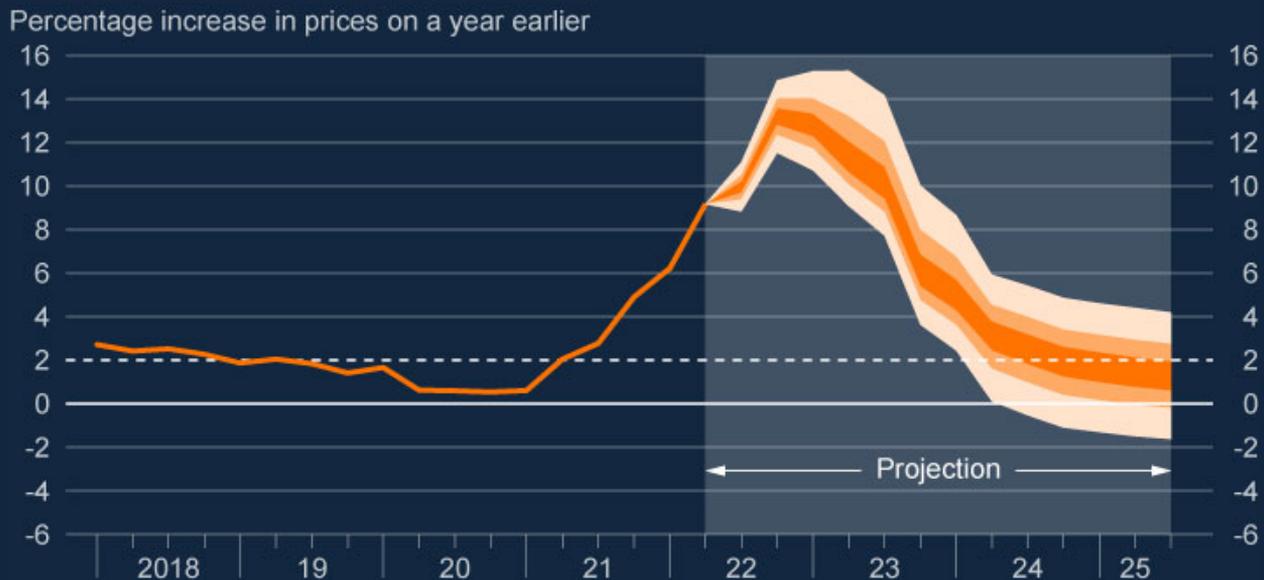
Evidence from the Agents' contacts and the DMP Survey suggests that firms generally expect to increase their selling prices markedly, following the sharp rises in their costs, with many seeking to protect their margins. Partly as a result, CPI services price inflation is expected to rise further in the near term.

In the baseline projection, after the expected peak in 2022 Q4, the upward pressure on CPI inflation is expected to dissipate, as global commodity prices are assumed to rise no further, and tradable goods price inflation falls back. Domestic inflationary pressures subside given the building significant degree of economic slack and as inflation expectations are assumed to adjust down quickly as inflation itself falls back.

CPI inflation is projected to fall to 9.5% in a year's time (Table 1.D) as fading external factors outweigh rising domestic pressures. Inflation then falls sharply to the 2% target in two years' time, when the direct contribution of energy to CPI inflation is projected to have fallen to zero (Chart 1.5) and domestic factors subside. CPI inflation falls to 0.8% in three years' time, well below the target, as domestic pressures weaken further.

In the alternative projection in which energy prices follow their downward-sloping futures curves throughout the forecast period, CPI inflation would be around 1 percentage point and  $\frac{1}{2}$  percentage point lower at the year two and three points respectively than in the baseline projection (Table 1.B and Box A). That reflects the contribution from energy prices to CPI inflation turning negative at those horizons (Chart 1.5). In projections conditioned on the alternative assumption of constant interest rates at 1.75%, CPI inflation is projected to be 2.5% and 1.3% in two years' and three years' time respectively,  $\frac{1}{2}$  percentage point higher than in the Committee's forecast conditioned on market rates (Chart 1.6).

**Chart 1.6: CPI inflation projection based on constant interest rates at 1.75%, other policy measures as announced**



This fan chart depicts the probability of various outcomes for CPI inflation in the future, conditioned on the assumptions in Table 1.A footnote (b), apart from for Bank Rate, with this chart conditioned on constant interest rates at 1.75%. The fan chart has the same interpretation as Chart 1.4.

### **The risks around the inflation projection from domestic factors in the baseline projection are judged to be balanced.**

There are significant risks around the central projection for CPI inflation from both global factors, most notably gas prices (Key judgement 1), domestic inflationary pressures, and the interactions between them (Key judgement 4).

Box A sets out the risks from domestic factors and a scenario in which domestic price setting is more persistent than in the MPC's baseline projection. In that scenario, CPI inflation takes longer to return to the 2% target.

Overall, the Committee judges that the risks around CPI inflation in the baseline projection are to the upside at year one, given the expected, but highly uncertain, increase in the weight of energy prices in the CPI basket that is not explicitly captured in the forecast (Key judgement 1). The risks are judged to be balanced thereafter.

### 1.3: Comparison of the baseline projections with the May Report forecasts

The level of UK GDP is projected to be 2¾% lower than in the May Report by the end of the forecast period. That largely reflects the adverse impact on UK and world activity of the further sharp increases in wholesale gas prices, and to a much lesser extent, the impact of the higher market paths for interest rates. The measures contained in the Government's May Cost of Living Support package partly offset these (Section 2.2).

Excess demand is a little higher at the start of the forecast than assumed in May (Table 1.A), reflecting a judgement that the labour market is tighter than previously assumed (Key judgement 3 and Section 3). Given the much weaker outlook for demand, economic slack increases by more thereafter, ending the forecast at 3¾% of potential GDP, 1½ percentage points greater than in May. Unemployment stays close to its current historically low level up to 2023 Q1, consistent with the Agents' employment and pay survey (Box C and Section 3). It rises to 6¼% at year three, compared with 5½% in May.

Nominal private sector regular wage growth is expected to be higher than in the May projection over the first half of the forecast, reflecting a judgement that the labour market is tighter than previously assumed (Key judgements 3 and 4).

CPI inflation is expected to rise further and peak at just over 13% in 2022 Q4. That is much higher than forecast in May. This overwhelmingly reflects the sharp increase in gas futures prices since May, due to Russia restricting the supply of gas to Europe and the risk of further curbs. To a much lesser extent, it reflects Ofgem's announced changes for updating the household energy price cap (Section 1.1). Together with higher indirect effects from energy prices, this accounts for most of the much higher outlook for CPI inflation over the first half of the forecast.

At the year two point, CPI inflation is similar to May, as the judgement to raise the profile for wage growth (Key judgement 4) is offset by the greater degree of economic slack. As economic slack builds by much more than in May, CPI inflation is around ½ percentage point lower at the end of the forecast period.

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

	Averages			Projections			
	1998–2007	2010–19	2020	2021	2022	2023	2024
<b>World GDP (UK-weighted) (c)</b>	<b>3</b>	<b>2½</b>	<b>-4¼</b>	<b>5½</b>	<b>2½ (2½)</b>	<b>1 (2)</b>	<b>1½ (2)</b>
World GDP (PPP-weighted) (d)	4	3¾	-3¼	6	3 (3½)	2¾ (3¼)	3 (3½)
Euro-area GDP (e)	2¼	1½	-6½	5¼	2¾ (2¼)	-1 (1¼)	¼ (1)
US GDP (f)	3	2¼	-3½	5¾	2 (3¼)	1½ (2¼)	1¾ (2)
Emerging market GDP (PPP-weighted) (g)	5½	5	-2½	6¾	3¾ (4)	4 (4½)	4¼ (5)
of which, China GDP (h)	10	7¾	2¼	8	3¼ (4¾)	5¼ (5½)	4½ (5¼)
<b>UK GDP (i)</b>	<b>3</b>	<b>2</b>	<b>-9¼</b>	<b>7½</b>	<b>3½ (3¾)</b>	<b>-1½ (-¼)</b>	<b>-¼ (¼)</b>
Household consumption (j)	3¼	2	-10½	6¼	4¼ (4¾)	-¾ (1)	1 (1)
Business investment (k)	3	3¾	-11¼	-1	6 (11)	-2 (½)	-7¼ (-5¼)
Housing investment (l)	3¼	3¾	-12½	14	6¾ (7¼)	-5¾ (-1¾)	-2½ (-1½)
Exports (m)	4½	3½	-13	-1¼	3½ (4¼)	-¼ (3)	0 (2½)
Imports (n)	6¼	3¾	-15¾	3¾	14¾ (5½)	0 (7¾)	¼ (2¼)
Contribution of net trade to GDP (o)	-½	0	1	-1½	-3¼ (-½)	0 (-1½)	0 (0)
Real post-tax labour income (p)	3¼	1½	2	1	-3½ (-3¼)	-4¼ (-¼)	¾ (1¾)
Real post-tax household income (q)	3	1½	-¾	2	-1½ (-1¾)	-2¼ (1)	¾ (2½)

Household saving ratio (r)	7¼	7½	14	10½	5¼ (4½)	3¾ (4½)	3½ (5¾)
Credit spreads (s)	¾	2½	2	1½	1¼ (1)	1¼ (1¼)	1½ (1½)
Excess supply/ <b>Excess demand</b> (t)	0	-1¾	-1¾	0	¾ (¼)	-2 (-1¼)	-3 (-1¾)
Hourly labour productivity (u)	2½	¾	1½	¾	-1 (-¼)	¼ (¼)	1 (1)
Employment (v)	1	1¼	-2¼	1¼	1¼ (¾)	-1½ (-½)	-¾ (-¼)
Average weekly hours worked (w)	32¼	32	30	31½	31¼ (31¾)	31½ (31¾)	31½ (31¾)
Unemployment rate (x)	5¼	6	5¼	4	3¾ (3½)	4¾ (4¼)	5¾ (5)
Participation rate (y)	63	63½	63¼	63¼	63¼ (63)	62¾ (63)	62½ (62¾)
<b>CPI inflation</b> (z)	<b>1½</b>	<b>2¼</b>	<b>½</b>	<b>5</b>	<b>13 (10¼)</b>	<b>5½ (3½)</b>	<b>1½ (1½)</b>
UK import prices (aa)	-½	1¼	2¾	2¼	8½ (4¾)	-3¼ (-2¼)	-1¾ (-1¾)
Energy prices – direct contribution to CPI inflation (ab)	¼	¼	-½	1½	6½ (4)	¾ (¼)	0 (0)
Average weekly earnings (ac)	4¼	2¼	4½	4½	5¼ (5¾)	5¼ (4¾)	2¾ (2¾)
Unit labour costs (ad)	2¾	1½	11¾	-2¼	8 (6¾)	5 (4)	2 (2)
Private sector regular pay based unit wage costs (ae)	1¾	1¾	9¼	-1¾	7½ (4¾)	6½ (5)	2 (2¼)

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 May 2022 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 Q2, so that has not been incorporated.
- (f) Chained-volume measure. Forecast was finalised before the release of the advance estimate of US GDP for Q2, 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 ABRJ+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 via the '[Download the chart slides and data – August 2022](#)'.
- (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. 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 AWE, 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: Key risks around the MPC's baseline projections

The degree of uncertainty around the MPC's projections from both external and domestic factors is exceptionally high. There are significant risks around the baseline projection for CPI inflation from global factors, most notably gas prices (Key judgement 1), domestic inflationary pressures, and the potential interactions between them (Key judgement 4).

To illustrate plausible different outcomes, this box sets out an alternative projection and a scenario. As in the baseline projection, the UK economy enters recession later this year in both. In the alternative projection, global energy prices follow their downward-sloping futures curves, in contrast to the MPC's conditioning assumptions in its baseline projection. In this alternative, CPI inflation is materially lower and activity significantly higher in years two and three than in the MPC's baseline forecast. In the scenario, there is assumed to be more persistence in domestic price setting than in the MPC's baseline projection. In this scenario, CPI inflation is materially stronger in the first two years of the forecast period.

### **An alternative projection in which global energy prices follow their downward-sloping futures curves throughout the forecast period.**

Based on the 15-day average to 26 July, gas futures prices for end-2022 have nearly doubled since the May Report (Chart 2.15) and are almost seven times higher than implied by futures curves a year ago. The sharp increases in gas prices are mostly due to Russia's restrictions on its supply of gas to Europe and the risk of further curbs. Gas prices have continued to be highly volatile and have risen above the 15-day average recently.

Commodity prices are very difficult to predict. The paths of these prices will continue to have significant effects on the UK and world economies, so the MPC's forecasts are based on a conditioning assumption for how they will evolve. As set out in Box 5 of the August 2019 Report, the MPC conditions its projections on wholesale energy prices following their respective futures curves for the first six months of the forecast and then remaining constant. Assuming prices remain constant over most of the forecast period makes the forecast simpler and more transparent.

At present, however, such an assumption implies that energy prices would remain extremely high by historical standards throughout the three-year forecast period. To illustrate a risk to the baseline forecast, this box sets out an alternative projection in

which energy prices follow their downward-sloping futures curves (Chart 2.15) throughout the forecast period, though they remain well above their pre-pandemic levels. That would result in a very different economic outlook in the second half of the forecast than in the baseline projection. In view of the exceptional level of uncertainty, the Committee puts more weight than it would normally on such an alternative.

If energy prices did follow their futures curves over the whole forecast period, CPI inflation would be around 1 percentage point and  $\frac{1}{2}$  percentage point lower at the year two and three points respectively than in the baseline projection (Table A). That reflects the contribution from energy prices being negative at those points (Chart 1.5).

This would weigh less heavily on households' real incomes and spending and so GDP would be materially higher than in the baseline projection, though the UK economy still enters recession later this year. The peak-to-trough fall in output in the baseline and alternative projections are  $2\frac{1}{4}\%$  and  $1\frac{1}{2}\%$  respectively.

Given the less weak outlook for demand, unemployment and economic slack would rise by over 1 percentage point less than in the MPC's baseline projection at the end of the forecast period.

**Table A: Forecast summary of the alternative projection in which energy prices follow their futures curves throughout the forecast (a)**

	2022 Q3	2023 Q3	2024 Q3	2025 Q3
GDP (b)	2.3 (2.3)	-1.5 (-2.1)	0.6 (0.0)	0.8 (0.4)
CPI inflation (c)	9.9 (9.9)	8.4 (9.5)	0.9 (2.0)	0.3 (0.8)
LFS unemployment rate	3.7 (3.7)	4.0 (4.4)	4.6 (5.5)	5.1 (6.3)
Excess supply/ <b>Excess demand</b> (d)	$+\frac{3}{4}$ ( $+\frac{3}{4}$ )	$-1\frac{3}{4}$ ( $-2\frac{1}{4}$ )	$-2\frac{1}{4}$ ( $-3\frac{1}{4}$ )	$-2\frac{1}{2}$ ( $-3\frac{3}{4}$ )
Bank Rate (e)	1.6 (1.6)	3.0 (3.0)	2.5 (2.5)	2.2 (2.2)

(a) Figures in parentheses show the corresponding projections from the MPC's baseline forecast.

(b) Four-quarter growth in real GDP.

(c) Four-quarter inflation rate.

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

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

**A scenario in which there is more persistence in domestic price setting than in the MPC's baseline projection.**

Inflation could remain persistently high for a number of reasons. First, it may reflect the impact of the series of adverse shocks that many countries have experienced over the past few years, which have resulted in sharp and successive increases in global energy, non-energy commodity and tradable goods prices.

Second, it may reflect the indirect effects of such developments passing through supply chains, pushing up CPI inflation further over time. The MPC's projections incorporate such effects.

There are a number of risks to the outlook for CPI inflation from more persistent strength in domestic wage and price setting arising from their potential interactions with the significant and rising global influences on inflation, notably from gas prices.

More persistence in wage and price-setting could reflect feedback between high past outturns for CPI inflation and nominal wage growth, which pushes up CPI inflation further. The MPC's projections incorporate some catch-up of nominal wage growth to the sharp rise in CPI inflation, as firms seek to recruit and retain staff. This in turn pushes up the CPI inflation projection somewhat. But there is a risk that firms grant larger pay awards than assumed given the very tight labour market and the sharp increase in CPI inflation. Many respondents to the Agents' employment and pay survey did not report their expected pay settlement, as they are waiting to see how much further CPI inflation rises and how long it is likely to remain above the 2% target.

How quickly inflation falls back to the 2% target will also depend on households' and firms' inflation expectations. In the Committee's baseline projection, they are assumed to base their inflation expectations largely on recent inflation outturns. Inflation expectations therefore fall back fairly quickly as inflation itself declines next year and in 2024. But an upside risk to the inflation outlook is that households and firms are less confident that inflation will fall back as quickly and do not factor such a decline into their wage and price setting behaviour.

Short-term indicators of inflation expectations have risen further since the May Report as inflation has continued to increase (Section 2.3). They are well above their historical averages, though appear broadly consistent with other developments in the economy. At the medium-term horizon, expectations of households and firms are also above their past averages, as are financial market measures, although the latter have fallen back in recent months. Surveys suggest financial market

participants and professional forecasters continue to expect CPI inflation to fall back towards the 2% target in two to three years' time, however. 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.

Table B shows one particular scenario in which inflation is more persistent than in the baseline forecast. In this scenario, firms are able to pass on the increases in their labour costs to their prices to a greater extent than normal, based on the estimated relationship between the changes in firms' expected costs and prices in the latest DMP Survey.

CPI inflation is around 1¼ percentage points higher than in the MPC's baseline projection at year one, ¾ percentage point higher at year two and unchanged at year three (Table B). By the end of the forecast, the level of GDP would be a little lower in this scenario and unemployment and economic slack a little higher.

**Table B: Marginal impacts on key forecast variables in a scenario in which there is greater persistence in domestic price setting than in the MPC's baseline projection (a)**

	2023 Q3	2024 Q3	2025 Q3
GDP (b)	-0.4	0.0	+0.1
CPI inflation (c)	+1.2	+0.7	0.0
LFS unemployment rate	+0.3	+0.3	+0.3
Excess supply/ <b>Excess demand</b> (d)	-0.4	-0.3	-0.2

(a) Percentage point changes relative to the MPC's baseline projections.

(b) Four-quarter growth in real GDP.

(c) Four-quarter inflation rate.

(d) Per cent of potential GDP. A negative figure implies more economic slack than the baseline projection and a positive figure implies less.

## Box B: Monetary policy since the May 2022 Report

At its meeting ending on 15 June 2022, the MPC voted by a majority of 6–3 to increase Bank Rate by 0.25 percentage points, to 1.25%.

There had been relatively little news in global and domestic economic data since the May Report, although there had been significant movements in financial markets. UK-weighted global growth in 2022 Q2 appeared to be broadly in line with expectations. Global inflationary pressures had remained elevated and oil prices had risen further. Equity markets had ended the period lower, while short and longer-term government bond yields had continued to rise.

UK GDP was weaker than had been expected in April, partly reflecting a further decline in Test and Trace activity. Bank staff expected GDP to fall by 0.3% in the second quarter as a whole, weaker than anticipated at the time of the May Report. Consumer confidence had fallen further, but other indicators of household spending appeared to have held up. Some indicators of business sentiment had weakened, although they had remained more resilient than indicators of consumer confidence and consistent with positive underlying GDP growth.

In the three months to April, the unemployment rate was 3.8% and employment had grown by 0.5%. The inactivity rate had declined a little over recent months but was still higher than immediately before the pandemic. Recruitment difficulties had remained elevated and labour demand had remained strong. Underlying nominal earnings growth had also remained strong, and the Bank's Agents reported that bonus payments had been used to address recruitment and retention difficulties. All of these indicators remained consistent with a tight labour market.

Twelve-month CPI inflation had risen from 7.0% in March to 9.0% in April, close to expectations at the time of the May Report, and triggering the exchange of open letters between the Governor and the Chancellor of the Exchequer. Inflation's overshoot of the 2% target mainly reflected previous large increases in global energy and other tradable goods prices.

CPI inflation was expected to rise to slightly above 11% in October. The increase in October reflected higher projected household energy prices following a prospective additional large increase in the Ofgem price cap.

In view of continuing signs of robust cost and price pressures, including the tightness of the labour market, and the risk of those pressures becoming more persistent, the Committee voted to increase Bank Rate by 0.25 percentage points, to 1.25%.

## 2: Current economic conditions

In the face of materially higher gas prices stemming from the war in Ukraine, inflationary pressures in the UK and the rest of Europe have increased further, and global GDP growth has continued to slow. In response to the elevated outlook for inflation, many central banks have raised policy rates and are expected to tighten policy further. Risky asset prices have fallen markedly, leaving global financial conditions tighter.

UK GDP is expected to fall a little in Q2, and then rise by 0.4% in Q3, with that volatility in part reflecting the scaling back of Test and Trace activity and the additional bank holiday for the Platinum Jubilee. Adjusting for these temporary factors, underlying output growth is judged to be positive, but slowing. That partly reflects the squeeze on real incomes from higher global energy and tradable goods prices. Despite the slowdown in underlying growth, the unemployment rate is expected to remain broadly flat in the near term.

CPI inflation was 9.4% in June. Since the May Report, wholesale gas prices have risen significantly. As a result, inflation is now expected to rise to around 13% in Q4 as the Ofgem energy price cap is reset. Domestic price pressures are also strengthening. Underlying wage growth is rising and survey evidence suggests that firms are passing a larger share of costs into prices to protect margins.

**Chart 2.1: GDP growth is expected to pick up in Q3, unemployment is projected to remain broadly flat, and inflation is expected to rise further**

Near-term projections (a)

**2022 Q2: -0.2%**    **2022 Q3: 0.4%**

Percentage change on a quarter earlier



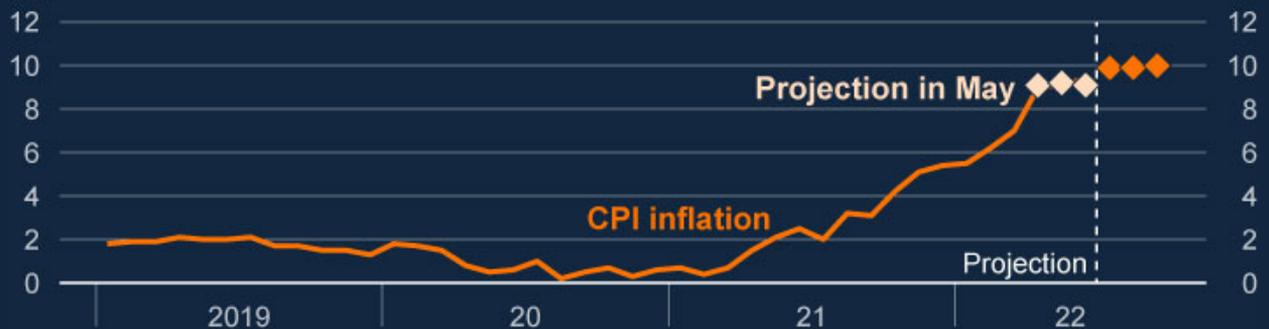
**2022 Q2: 3.8%**    **2022 Q3: 3.7%**

Per cent



**2022 Q2: 9.2%**    **2022 Q3: 9.9%**

Per cent



Sources: ONS and Bank calculations.

(a) The lighter diamonds show Bank staff's projections at the time of the May 2022 Monetary Policy Report. The darker diamonds show Bank staff's current projections. Projections for GDP and the unemployment rate are quarterly and show Q2 and Q3 (May projections show Q1 and Q2). Projections for CPI inflation are monthly and show July to September (May projections show April to June). GDP and unemployment rate 2022 Q2 projections are based on official data to May. CPI inflation figure is an outturn.

## 2.1: Global developments and financial conditions

**Global GDP growth has been slowing, and is expected to remain weak in the near term.**

Global GDP growth has been slowing since the middle of last year (Chart 2.2). The level of UK-weighted world GDP is expected to have been broadly unchanged in 2022 Q2, following growth of 0.3% in Q1. Growth is projected to remain weak in Q3. While global growth has slowed, recent outturns and the near-term projection are broadly in line with expectations in the May Report. The projection further out is notably weaker than in May, however, reflecting the higher current and forward prices for energy and, to a lesser extent, tighter financial conditions (Section 1).

In the euro area, GDP increased by 0.7% in Q2 according to the flash estimate, up from a 0.5% increase in Q1, but still much weaker than growth outturns in mid-2021. The slowdown partly reflects materially higher energy and food prices, partly driven by the war in Ukraine (Box B of the [May 2022 Report](#)), which weighed on household real incomes and consumer spending. The war and supply chain disruption have also pushed up tradable goods prices. These adverse supply shocks, which are also hitting the UK economy, are expected to continue to drag on growth. In the July releases, euro-area consumer confidence declined sharply to a new record low, and the flash S&P Global PMI fell into contractionary territory.

In the United States, GDP fell in Q2, the second consecutive quarter of negative growth. While the fall was mainly driven by lower stockbuilding, domestic demand growth also slowed. In response to rising domestic inflationary pressures, which appear stronger than in the euro area (Chart D, Box E), the FOMC has tightened monetary policy markedly. Financial conditions have tightened as a result, and that is expected to weigh on activity.

**Chart 2.2: Global GDP growth has been slowing since the middle of last year**

UK-weighted world GDP growth (a)



Sources: Refinitiv Eikon from LSEG and Bank calculations.

(a) See footnote (c) of Table 1.E for definition. Figures for 2022 Q2 and Q3 are Bank staff projections. These projections do not include the Advance Estimate of US 2022 Q2 GDP and the Preliminary Flash Estimate of euro-area 2022 Q2 GDP which were released after the data cut-off.

In China, quarterly GDP growth was negative in Q2, following strict regional restrictions on activity imposed in response to Covid-19 outbreaks. But growth is expected to rebound in Q3 owing to policy support measures and the lifting of restrictions. This contributes to the small pickup in quarterly UK-weighted global growth expected in Q3 (Chart 2.2).

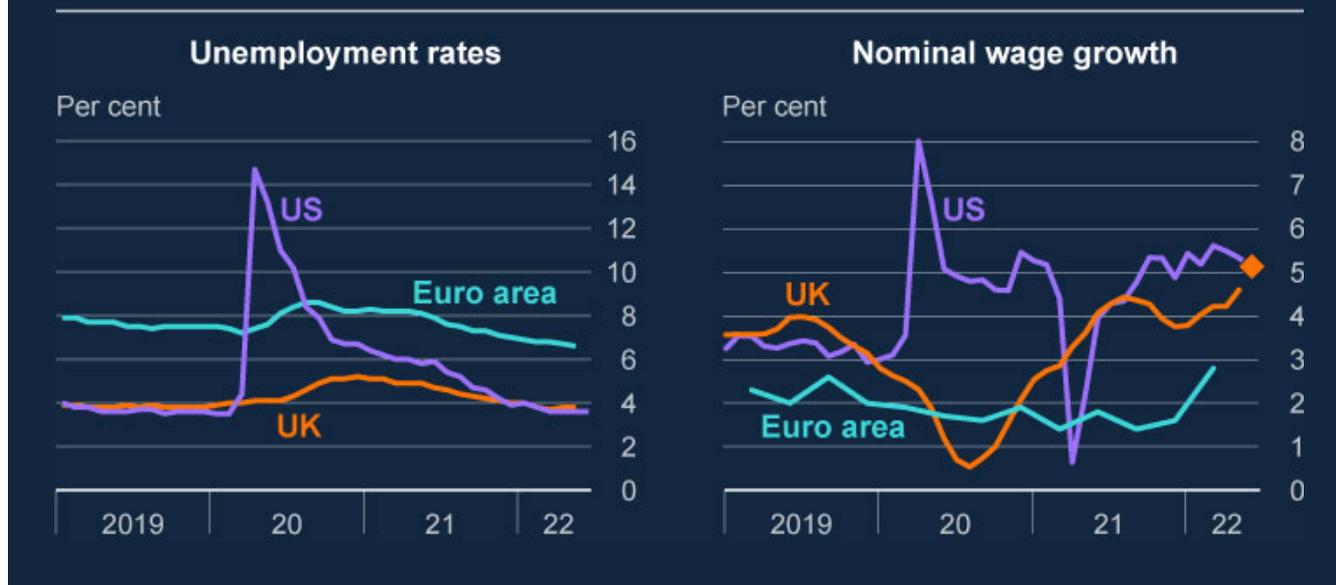
### Labour markets remain tight, putting upward pressure on nominal wage growth.

Labour markets have been tightening across the US, euro area and the UK for some time, and they remained tight in the most recent data. That tightness is particularly apparent in the UK (Section 3) and the US, where unemployment rates are low (left panel of Chart 2.3). In the euro area, the unemployment rate is higher, but it still fell to a new record low of 6.6% in May.

Tight labour markets have probably contributed to the pickup in measures of wage growth across the UK, US and euro area. Wage growth has increased most notably in the US and UK (right panel of Chart 2.3), and may explain why services inflation in these countries is stronger (Chart D, Box E). Euro-area negotiated wage growth remains much lower, despite an increase in the latest data.

### Chart 2.3: Labour markets remain tight in advanced economies, particularly in the US and UK, which has pushed wage growth up

Unemployment rates and annual nominal wage growth in the UK, US and euro area (a)



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

(a) Unemployment rates are monthly data to May in the UK and euro area, and to June in the US. Wage measures are monthly US average hourly earnings to June, monthly UK underlying pay growth, using Bank staff estimates to adjust private sector regular pay growth for furlough and compositional effects, to May, and quarterly euro-area negotiated wages to 2022 Q1. The diamond shows the Bank staff projection for UK underlying pay growth in June 2022.

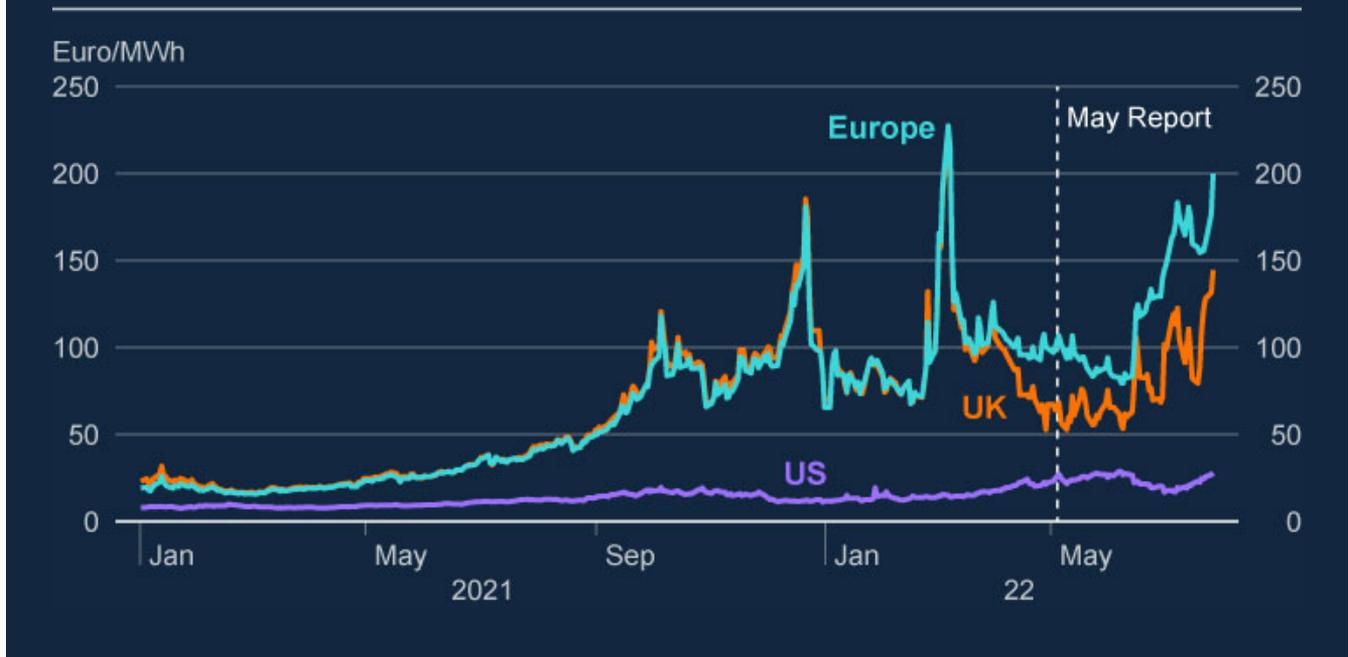
### Global inflation remains elevated.

Inflation rates remain elevated in many countries. Box E compares the drivers of the rise in consumer price inflation across the US, the euro area and the UK. Global factors, such as the rise in commodity prices, and the impact of bottlenecks on tradable goods prices, have played an important role.

Since May, European spot natural gas prices have risen by around 70% (Chart 2.4), as flows of natural gas from Russia have fallen and amid heightened concerns that supply will remain restricted in coming months. Europe has made up for some of the shortfall in Russian supply through alternative sources. However, there are concerns that supply from these alternative sources may be difficult to increase much further if Russian supply continues to fall.

### Chart 2.4: European wholesale gas prices have risen by around 70% since the May Report

International wholesale gas prices (a)



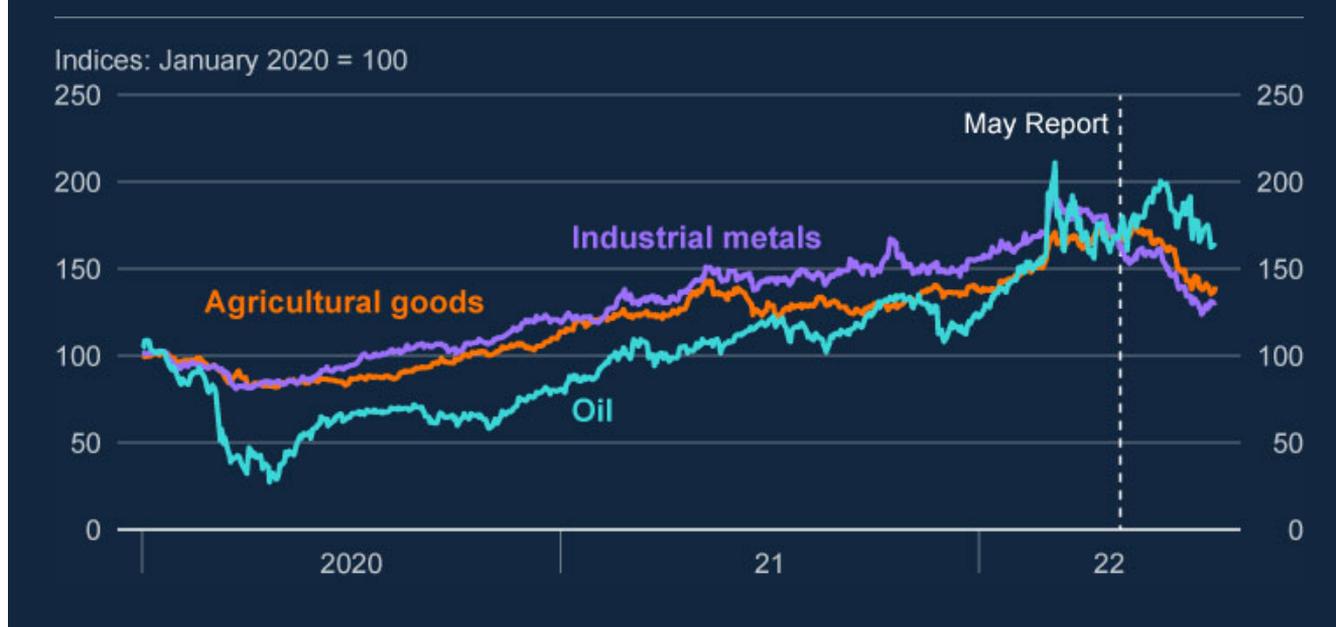
Sources: Bloomberg Finance L.P. and Bank calculations.

(a) Daily data to 26 July. The Dutch Title Transfer Facility pricing point is used for the European price. European spot gas prices have risen by substantially more than in the US reflecting the segmentation of the global gas market.

By contrast, other commodity prices have started to decline. Oil prices have fallen since the middle of June (Chart 2.5). Models estimated by Bank staff suggest that this reflects weaker prospective demand. Reflecting similar drivers, industrial metals prices have fallen back by almost 30% since the May Report (Chart 2.5). Agricultural goods prices have fallen by almost 20% as supply has increased in regions outside Russia and Ukraine, and as fears of restricted Ukrainian supply have abated somewhat.

### Chart 2.5: Oil, agricultural and metals prices have fallen back

US dollar commodity prices (a)



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

(a) Daily data to 26 July. Calculated using S&P GSCI US dollar commodity price indices, the 'Agricultural goods' series is based on the total agricultural and livestock S&P Commodity Index and the 'Oil' series is based on US dollar Brent forward prices for delivery in 10–25 days' time.

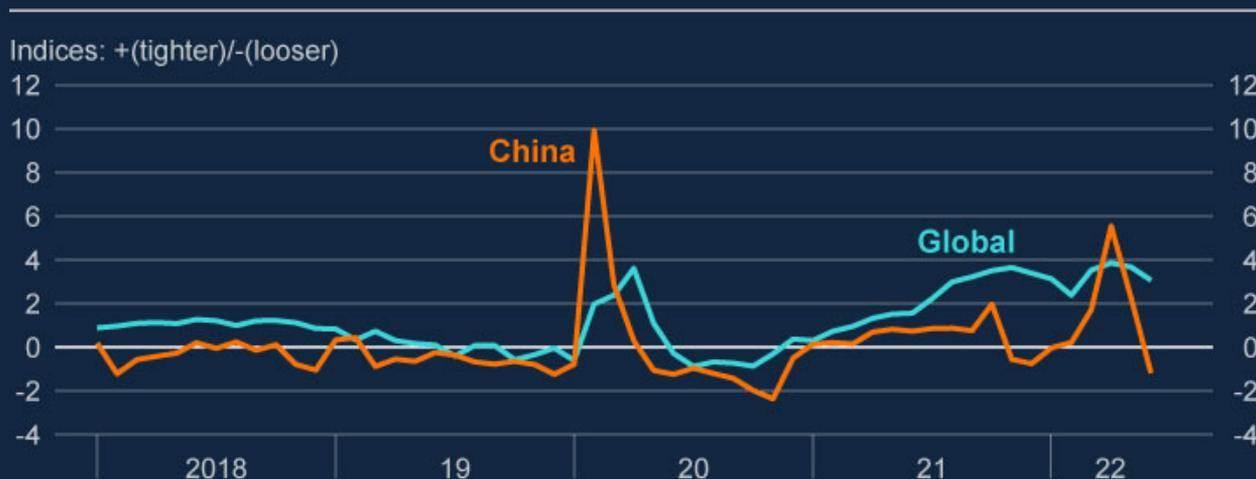
The latest indicators are consistent with continuing supply chain disruption, partly reflecting the lockdowns in China and the war in Ukraine. An indicator of global supply constraints, derived from PMIs such as delivery times and stocks of finished goods, remains elevated (Chart 2.6).

There are some tentative signs that global supply bottlenecks are starting to ease, however. In June, supply constraints in China loosened (Chart 2.6) and PMI manufacturing delivery times fell back across regions. Moreover, some indicators of shipping costs, such as the Baltic Dry Index and the Freightos Baltic Container Index, have fallen back from their peaks. And there are some signs of a gradual slowdown in US goods consumption.

In the MPC's baseline projection, higher gas prices and upward pressure from global bottlenecks are expected to keep global inflationary pressures strong in the near term. As these pressures then fade, four-quarter world export price growth is projected to fall sharply over the next year (Section 1).

## Chart 2.6: Indicators of supply chain constraints point to continuing disruption, although supply constraints in China have eased

Indicators of supply constraints (a)



Sources: IHS Markit, JPMorgan, Refinitiv Eikon from LSEG 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 are for June 2022.

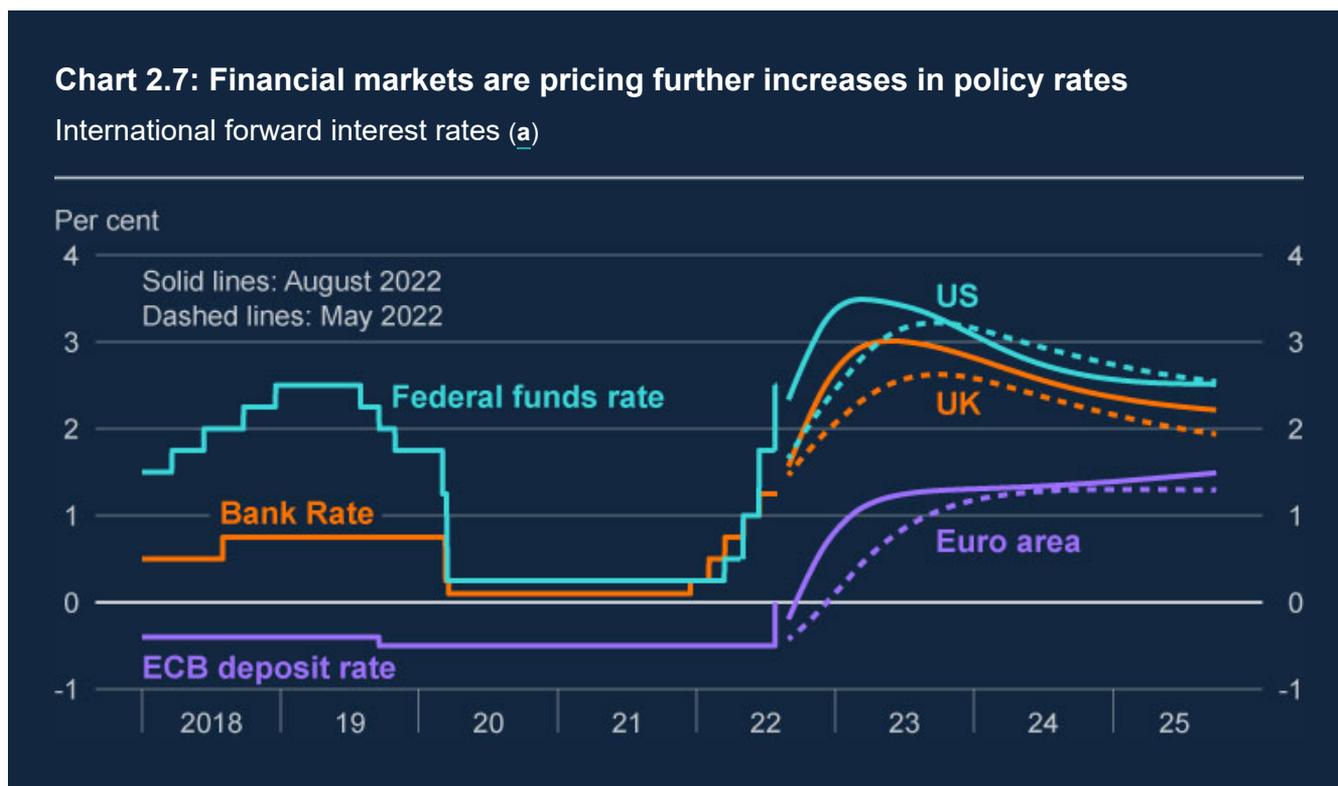
### Many central banks have tightened monetary policy since May, including a large increase in US policy rates...

Many central banks have continued to tighten monetary policy. In the US, the FOMC increased the target range for the federal funds rate by 75 basis points in both June and July to 2.25%–2.50%, following a 50 basis points rise in May. These were the largest increases in a single meeting since 1994. At its June meeting, the ECB Governing Council announced an end to its net asset purchases as of 1 July 2022 and, at its July meeting, it increased its key interest rates by 50 basis points, the first rate rises since 2011. In June, the MPC voted to increase Bank Rate for the fifth consecutive meeting, by 25 basis points, to 1.25%.

### ...and market pricing implies that policy rates will rise further in the near term.

Market-implied expectations for policy rates have risen since the May Report (Chart 2.7). The market-implied path in the euro area over the next three years is 25 basis points higher on average than in the run up to the May Report, rising to 1.5% in 2025. The

market-implied path for policy rates in the US continues to embody a sharp rise in rates in the near term to a peak of 3.5% in 2023. It then falls to around 2.5% at the three-year horizon.



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

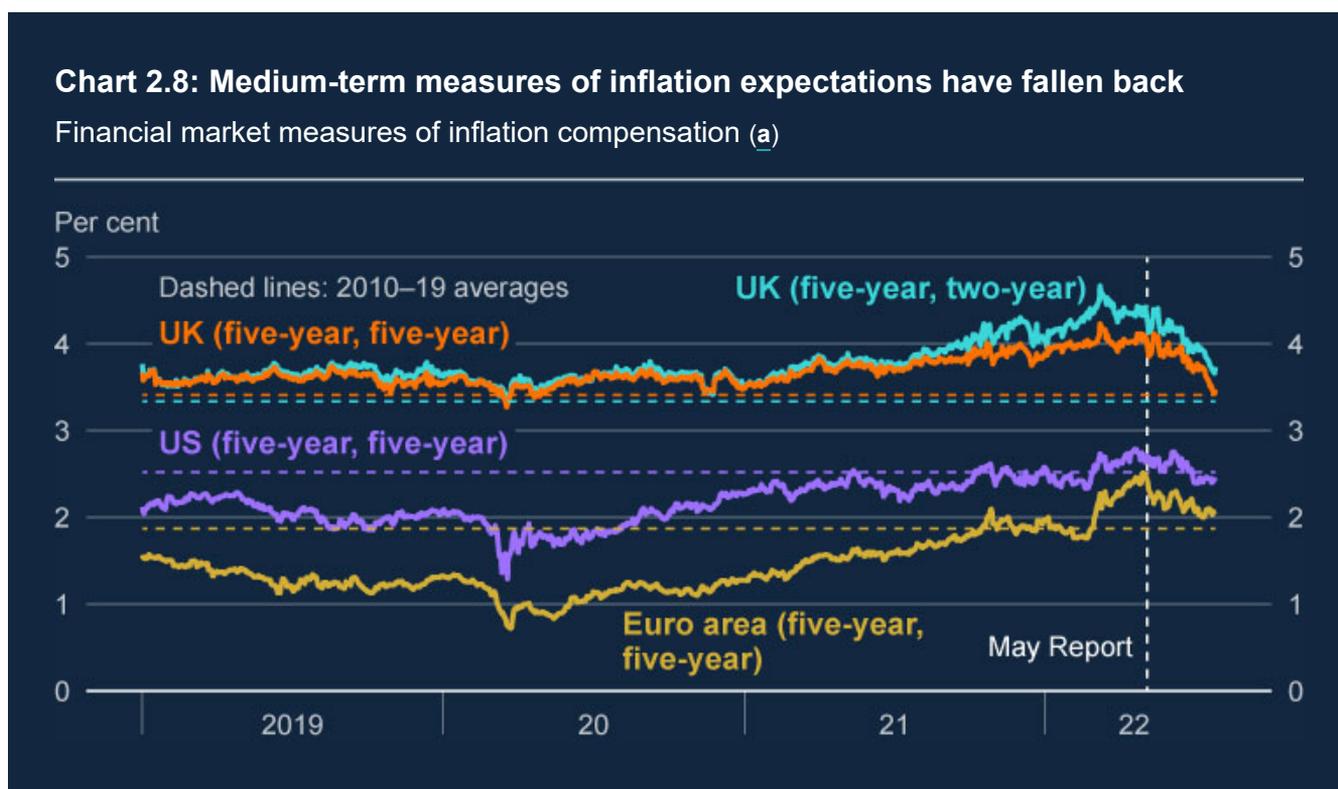
(a) All data as of 26 July 2022 except for ECB deposit rate and Federal funds rate which are to 27 July 2022. The August and May curves are estimated using instantaneous forward overnight swap rates in the 15 working days to 26 July 2022 and 26 April 2022 respectively. Federal funds rate is the upper bound of the target range.

In the UK, the market-implied path rises to a peak of 3.0% in 2023 Q2. As in the US, the market curve is then downward sloping further out. On average, the market path is around 30 basis points higher over the next three years than in the run-up to the May Report.

The path for Bank Rate implied by the latest Market Participants Survey remains lower than the market curve. The median central expectation of the peak level is 2.5%, 50 basis points higher than in May. Survey respondents attributed the gap, in part, to the balance of risks being skewed towards a higher path for Bank Rate ([Rosen \(2022\)](#)), particularly at the short end of the curve.

**Medium-term measures of inflation expectations derived from financial markets have fallen back.**

Medium-term measures of inflation expectations derived from financial markets have fallen since the May Report in the UK, US and euro area (Chart 2.8). That may reflect the weaker global growth outlook and lower prices for some commodities. It may also reflect tighter monetary policy and expectations of further rate rises in the near term (Chart 2.7). These measures remain above their 2010–19 averages in the UK and euro area, but in the US they have fallen a little below.



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

(a) Five-year inflation, five years ahead and two-year inflation, five years ahead, derived from swaps. The instruments are linked to the UK RPI, US CPI and euro-area HICP measures of inflation respectively. UK RPI is due to be aligned with CPIH from February 2030, which will affect the pricing of the UK five-year, five-year measure. Since 2000, annual CPIH inflation has averaged 90 basis points lower than RPI inflation.

### Reflecting the rise in risk-free rates, interest rates facing UK households and firms have increased.

Rates on new mortgages, fixed-rate deposits and bank lending to companies have continued to rise since the May Report, reflecting the pass-through of higher risk-free interest rates (Box E). In terms of the supply of bank lending, the latest **Credit Conditions Survey** (CCS) suggested that the availability of secured credit to households decreased in the three months to May 2022, with lenders reporting that this reflected a worsening economic outlook. The availability of bank credit to the corporate sector was reported to

be unchanged in the Q2 CCS, though contacts of the Bank's Agency network reported a modest tightening in bank credit availability, particularly for small firms in sectors exposed to elevated costs or discretionary consumer spending (Box C).

**Global financial conditions have tightened since May, equity prices have fallen and spreads on corporate bonds have widened.**

Most global equity indices have continued to decline since the time of the May Report, reflecting expectations of higher interest rates. The S&P 500, the Euro Stoxx and MSCI Emerging Market indices are between 9% and 12% lower. The FTSE All-Share index has fallen by over 5%. In particular, equity prices for so-called 'cyclical' stocks – those companies whose earnings and performance are correlated with overall economic growth – have fallen. That suggests that a weaker global growth outlook is also playing a role in the fall in stock prices.

Reflecting similar factors, spreads on corporate debt have widened. Since the May Report, spreads on high yield corporate debt in the UK, US and euro area have risen by more than 160 basis points, and by more than 25 basis points on investment-grade debt. The fall in equity prices, the rise in spreads and the increase in expected policy rates mean that global financial conditions have tightened since the last Report. That is expected to weigh on the global growth outlook (Section 1).

**Sterling has depreciated, particularly against the US dollar.**

The sterling effective exchange rate has depreciated by 3% since the May Report (Chart 2.9). The depreciation against the US dollar accounts for around 60% of the fall in the sterling ERI since May. Currencies other than sterling have also depreciated against the US dollar. This may in part reflect 'safe-haven' flows supporting the US dollar given heightened uncertainty about the global outlook. In the early part of this year, the depreciation of sterling against the dollar may have also reflected the rising differential in expected policy rates between the US and the UK.

### Chart 2.9: The sterling ERI has depreciated by around 3% since May

Sterling effective exchange rate index (ERI) and selected bilateral exchange rates (a)



(a) Figures in parentheses show currency trade weights in the overall sterling ERI.

## 2.2: Domestic activity

**UK GDP is expected fall a little in Q2, and then rebound in Q3, partly reflecting the effects of Test and Trace activity and the Platinum Jubilee bank holiday.**

UK GDP is expected to have fallen by 0.2% in 2022 Q2, compared with 0.8% growth in Q1. This slowdown in activity primarily reflects a fall in government output due to the scaling back of Test and Trace activity, and some temporary weakness associated with the additional Platinum Jubilee bank holiday (Chart 2.10). Bank staff then expect headline GDP to rise by 0.4% in Q3, as the drag from the fall in Test and Trace activity dissipates and the effect of the Jubilee bank holiday unwinds.

**Chart 2.10: Underlying output growth is judged to have slowed since Q1**

Contributions to quarterly GDP growth (a)



Sources: ONS and Bank calculations.

(a) Diamonds show quarterly headline GDP growth. Gold bars are Bank staff estimates for the contribution of the extra bank holiday in June. Purple bars show adjusted market sector output, as a proxy for 'underlying growth'. Orange bars are contributions of output in government services to quarterly GDP, including the vaccination and Test and Trace programmes. Data for Q2 and Q3 are Bank staff projections.

### Adjusting for these temporary factors, underlying output growth is judged to be positive, but to have slowed more rapidly than expected.

Bank staff estimate that underlying output growth, calculated as market sector output growth adjusted for the effects of the Jubilee, has slowed from around 0.9% in Q1 to 0.5% in Q2. A further slowing to 0.2% in Q3 is expected (purple bars in Chart 2.10). That is consistent with surveys such as the S&P Global/CIPS composite PMI, where the output index and the new orders index have declined, while remaining above the 50 'no change' mark (Chart 2.11). The future output index – which asks firms about expected changes in output over the next year – has fallen particularly sharply. Other surveys such as those from the BCC and CBI paint a similar picture. Underlying output growth in both Q2 and Q3 is expected to be slightly weaker than projected in the May Report.

Contacts of the Bank's Agents reported that output growth in manufacturing and construction was being constrained by shortages of labour and goods, as well as a softening in demand for some consumer goods due to the real income squeeze. Many of these factors were expected to continue to weigh on output in coming months.

Beyond Q3, output is projected to fall in each quarter from 2022 Q4 to 2023 Q4. That predominantly reflects the significant adverse impact of the sharp rises in global energy and tradable goods prices on UK household real incomes (Section 1).

### Chart 2.11: Survey indicators point to a slowdown in output growth

S&P Global/CIPS indicators of current and expected output growth (a)



Source: S&P Global/CIPS.

(a) A reading of above 50 indicates positive change on the previous month while a reading below 50 indicates negative change. UK composite output, new orders and future output indices. Latest data are flash estimates for July 2022.

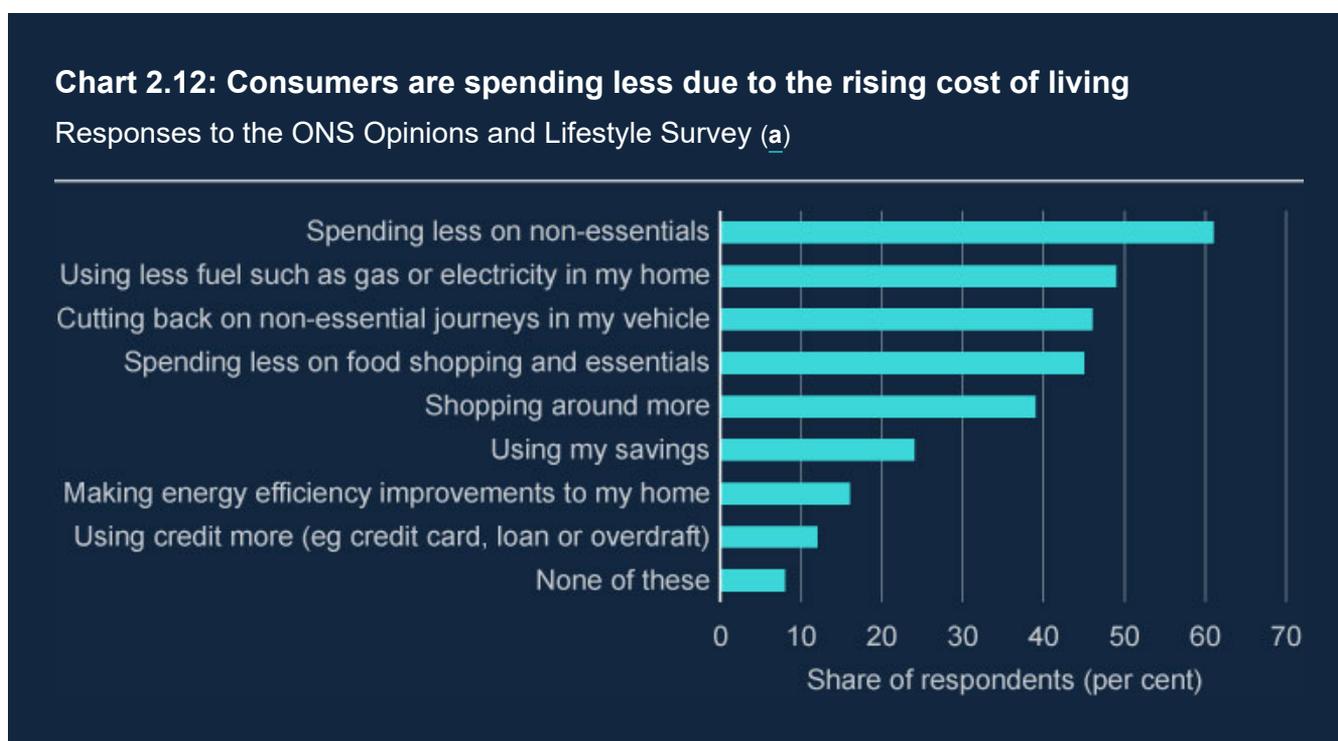
### Various indicators suggest that the real income squeeze is weighing on consumer spending.

The pickup in global energy and tradable goods prices has led to a marked squeeze on household real incomes (Chart 2.14). A range of evidence suggests that this real income squeeze is weighing on consumption.

Spending on goods, as indicated by retail sales volumes, fell in May and June. While this may partly reflect some rotation of spending back from goods to services, it also probably reflects the impact of higher prices: the nominal value of sales has increased in recent

months, while real volumes across almost all categories of goods continued to drift lower. Contacts of the Bank's Agents report that growth in spending on consumer services was flat in real terms (Box C).

Households responding to a recent ONS survey reported that they were spending less due to the rising cost of living (Chart 2.12). Just over 60% said they were spending less on non-essentials, while almost 50% said they were using less fuel at home and spending less on food. The impact of higher prices is likely to be felt more acutely by those on lower incomes, because items such as food and energy make up a higher proportion of their spending (Chart 3.8 in the [May Report](#)).



(a) Based on adults who said their cost of living had increased. Question: 'Which of the following are you doing because your cost of living has increased?'. Respondents were able to choose more than one answer. Survey conducted 6–17 July 2022.

### Surveys point to a deterioration in consumer sentiment.

Consumer confidence has deteriorated, probably reflecting increasing concerns about rising cost pressures. The GfK consumer confidence index, which has been falling steadily throughout 2022, remained at its record low in July (Chart 2.13). The forward-looking balances for households' confidence in their own financial situation and the general economic situation over the next 12 months also remained around record lows.

**Chart 2.13: Consumer sentiment has deteriorated further**

Consumer confidence (a)



Source: GfK.

(a) GfK Consumer Confidence Index and sub-indices based on the net balances of respondents reporting that they expect their personal financial situation and the general economic situation to improve over the next 12 months. Latest data points are for July 2022, with the survey conducted between 1 July and 12 July 2022. Not seasonally adjusted.

### | Household savings may provide some support to consumption...

Households may be able to absorb some of the fall in their real incomes by saving less of their current income or by spending some of their stock of savings. In aggregate, households accumulated substantial savings earlier in the pandemic. But the distribution of those savings has been increasingly skewed over time towards higher income households, who might be less likely to spend them. Only around a quarter of respondents to an ONS survey carried out in July who were facing a rise in the cost of living expected to use their savings to support their consumption (Chart 2.10). Households may seek other ways of funding spending. For example, respondents to the Bank/NMG survey earlier this year indicated that aside from using their savings, they may choose to work more, seek a pay rise or borrow money (see Section 3 in the [May Report](#)).

In the MPC's baseline projection, the savings rate is projected to decline from 6.6% in Q1 to 5.1% in Q3, and then decline further over the next year.

### | ...as should the Cost of Living Support package announced by the Government...

The Government announced an additional £15 billion Cost of Living Support package during May, particularly intended to support those on lower incomes. This included: a direct one-off payment of £650 for households on means-tested benefits; a payment of

£300 to pensioners; and a £150 payment to people on disability benefits. The package also included a doubling of the universal rebate through the Energy Bills Support scheme (announced earlier this year in February), and that the full rebate of £400 for all households would no longer have to be repaid. While some of these measures, such as means-tested benefits, were beginning to be implemented during July, many will be rolled out during Q4. Bank staff estimate that the Cost of Living Support package will raise the level of GDP by a peak of around ½% in 2022 Q4 and 2023 Q1 before fading (Section 1).

**...but overall, Bank staff expect consumer spending to weaken in the near term, reflecting falling real income.**

Overall, while nominal wage growth has picked up (Section 2.3) and employment growth is strong, Bank staff expect a further squeeze on household real incomes from the rise in energy prices, due to the assumed increase in the Ofgem price cap in October (Section 2.3). Real post-tax household income is now expected to fall by around 2% in the year to 2022 Q4 (Chart 2.14). Household spending growth is expected to weaken as a result: Bank staff expect consumption to rise by 0.3% in Q2, 0.1% in Q3, and then fall in Q4.

**Chart 2.14: Real household income is projected to fall in 2022**

Contributions to four-quarter real household income growth (a)



Sources: ONS and Bank calculations.

(a) Diamonds show Bank staff projections for 2022 Q2, Q3 and Q4. Bars may not sum to total due to rounding. Income includes non-profit institutions serving households. See footnote (q) in Table 1.D for the definition of real post-tax household income.

**Business investment continues to be held back by supply chain disruptions and broader economic uncertainty.**

Business investment fell by 0.6% in 2022 Q1, over 3 percentage points lower than expected in the May Report. This continued weakness could partly reflect the impact of temporary supply shortages and broader uncertainty about the economic outlook. Intelligence from the Bank's Agencies highlights that investment intentions had softened slightly but remained positive (Box C). Bank staff expect business investment to rise modestly in Q2 and Q3.

**Goods trade flows appear to have picked up, but there remain large uncertainties around these data.**

Goods trade flows appear to have picked up in recent months, but the ONS has flagged that there are currently large uncertainties around these data, partly due to a change in data collection methods. This makes it difficult to judge recent trends. The ONS has also highlighted that the impact of Brexit and supply chain disruptions have contributed to higher levels of volatility in trade in the past two years.

**The UK housing market has been strong, but momentum appears to be easing.**

UK house prices, as measured by the UK House Price Index, increased by 11% in the year to May. Growth has generally been easing on a month-on-month basis since the start of 2022, however. Some of that slowdown probably reflects the squeeze in real incomes that is weighing on consumer spending more broadly, and contacts of the Bank's Agents expect that squeeze to slow house price inflation in the months ahead. The pickup in mortgage rates, driven by the recent rises in reference rates including Bank Rate (Box D), is also likely to be playing a role.

The strength of the housing market during the pandemic has boosted GDP directly. Housing investment was around 10% higher in Q1 than its pre-pandemic level. But that support is expected to fade. Bank staff expect housing investment to be relatively flat in the near term.

**Despite the economic slowdown, the labour market remains tight.**

Despite the economic slowdown, a range of evidence suggests that the labour market remains tight (Section 3). And some surveys point to higher-than-usual levels of capacity utilisation within firms. Based on that evidence, there is judged to be some excess demand in Q2. In the MPC's baseline projection, excess supply is expected to open up in the economy over time, as demand grows at a slower pace than potential supply, and the unemployment rate gradually rises (Section 1).

## 2.3: Costs and prices

**CPI inflation picked up to 9.4% in June, higher than expected in May.**

CPI inflation increased to 9.4% in June, from 7.0% in March, 0.3 percentage points higher than expected in the May Report. This news was largely accounted for by higher food and fuel prices. There was some downside news in core CPI inflation – which excludes more volatile items like energy and food – as it eased from a recent high of 6.2% in April to 5.8% in June. This was driven by a deceleration in core goods price inflation.

### Gas futures prices have nearly doubled since May...

Sterling spot wholesale gas prices have risen substantially since May, while gas futures prices for end-2022 have nearly doubled (Chart 2.15). As with the rise in European wholesale gas prices (Chart 2.4), that has been due to Russia's restrictions on gas supplies, and increasing concerns that supply will be restricted further in coming months.



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

(a) Spot price is the one-day forward price of UK natural gas. August 2022 curve is the 15 working day average to 26 July 2022 and the May 2022 curve is the 15 working day average to 26 April 2022.

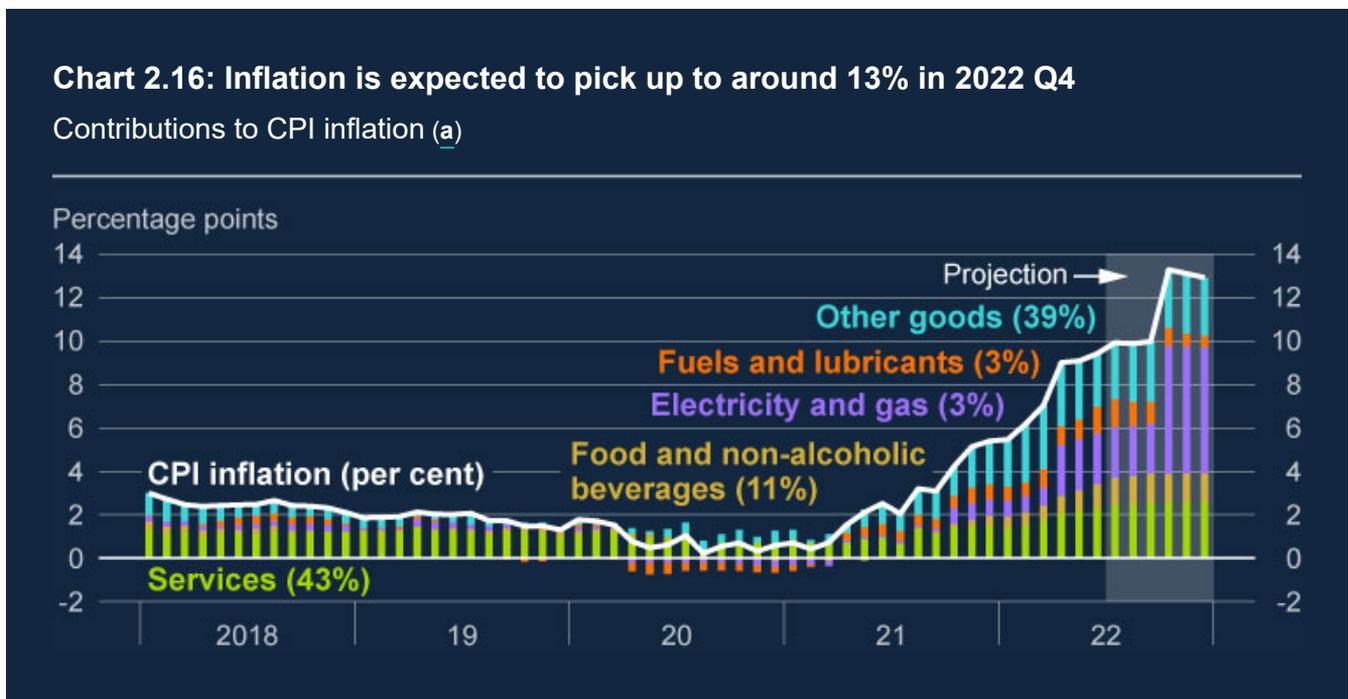
### ...CPI inflation is expected to rise to around 13% in October, due to the projected increase in Ofgem's price caps.

Bank staff expect inflation to pick up slightly to around 10% in July and remain at around this level through the rest of Q3, reflecting higher fuel, food and services prices (Chart 2.16).

Inflation is then expected to pick up further to around 13% in 2022 Q4 (Chart 2.16), about 3 percentage points higher than expected in May. This sharp upward revision overwhelmingly reflects the substantial rise in wholesale gas futures prices. To a lesser

extent, it reflects Ofgem’s announced changes to the methodology for updating its price caps. That includes putting more weight on the most recent sharp increases in wholesale gas prices. Overall, Ofgem is expected to raise its price cap by around 75% in October, compared to a 40% rise anticipated in the May Report. These projections imply that energy will directly contribute around 6½ percentage points to CPI inflation in 2022 Q4 (purple and orange bars in Chart 2.16), nearly 2½ percentage points higher than in the May Report and accounting for more than half of the overshoot of CPI inflation relative to the 2% target. Ofgem is increasing the frequency of updates from semi-annual to quarterly, so the cap will change again in January.

While the vast majority of the rise in inflation in 2022 H2 is accounted for by higher energy prices, core CPI inflation is also expected to pick up a little. It is expected to reach around 6¼% by the end of the year, largely reflecting strengthening services prices inflation.



Sources: Bloomberg Finance L.P., Department for Business, Energy and Industrial Strategy, ONS and Bank calculations.

(a) Figures in parentheses are CPI basket weights in 2021 and do not sum to 100 due to rounding. Data to June 2022. Bank staff projection from July 2022 to December 2022. Fuels and lubricants estimates use Department for Business, Energy and Industrial Strategy petrol price data for July 2022 and then are based on the sterling oil futures curve. Other goods is the difference between CPI inflation and the other contributions identified in the chart.

**The bulk of the strength in inflation continues to reflect high energy and tradable goods prices...**

The bulk of the strength in inflation continues to reflect the direct impact of high energy and tradable goods prices. The rise in energy prices has been significantly exacerbated by the build-up to and Russia's subsequent invasion of Ukraine. Higher global goods prices reflect various factors including: the economic recovery from the worst of the pandemic; the rotation of consumer spending towards goods and away from services, most notably in the United States; and supply constraints in certain sectors.

These higher prices will also have indirect effects on inflation via higher transport, production and utility costs for firms supplying non-energy goods and services. Respondents to the Bank's [Q2 DMP Survey](#) reported that energy input prices and supply shortages continue to contribute to changes in realised price inflation. These indirect effects probably explain part of the pickup in prices across a broad set of goods and services components within the overall CPI. Inflation rates of components accounting for around 90% of the UK CPI basket are now above their pre-Covid averages, compared to around 50% this time last year.

**...but there has also been a role for domestic factors. Consumer services inflation has picked up further, partly reflecting the strength in pay growth.**

Consumer services price inflation picked up to 5.2% in June, its highest rate since March 1993. While some of the rise may reflect the indirect effect of energy price rises, it is also likely to reflect the strength of nominal pay growth, since labour costs tend to make up a large proportion of costs for service sector firms. Annual whole-economy average weekly earnings grew by 6.2% in the three months to May, while private sector regular pay growth – which excludes bonuses – was 5%. Bank staff estimate that underlying pay growth, which is adjusted for furlough and compositional effects, had been around 4½% in the three months to May, in excess of pre-pandemic rates of around 3% to 3½%. The HMRC PAYE measure of the median of pay growth was also above its pre-pandemic rate.

### Chart 2.17: Models suggest that a tightening labour market and higher inflation expectations are contributing to the pickup in nominal pay growth

Contributions to annual private sector regular pay growth (a)



Sources: ONS and Bank calculations.

(a) Wage equation based on [Yellen \(2017\)](#). Short-term inflation expectations are based on the Barclays Basix Index and the YouGov/Citigroup one year ahead measure of household inflation expectations. 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.

### Underlying pay growth is expected to pick up further to around 5½% in the near term, driven by persistent tightness in the labour market and higher inflation.

Models estimated by Bank staff indicate that the pickup in underlying pay growth so far has been driven by a tightening in the labour market (Section 3) and a rise in short-term inflation expectations (Chart 2.17). The latter probably reflects higher headline inflation itself: short-term measures of inflation expectations tend to move with actual inflation ([Rowe \(2016\)](#)).

These factors are expected to push up underlying pay growth in the near term, with Bank staff projecting a rise to around 5½%. Surveys by the Bank's Agents also suggest pay growth will strengthen. In the latest Agents' survey on employment and pay, respondents expected average pay settlements to be nearly 6% over the next 12 months, up from around 5% in January (Chart 2.18). Around a quarter of respondents had given or were

considering awarding one-off payments to compensate staff. Many did not report their expected pay settlement over the next year, as they are waiting to see how much further CPI inflation rises.

**Chart 2.18: Respondents to the Agents' pay survey in July expected average pay settlements to be nearly 6% over the next 12 months, up from 5% in January**

Pay settlements (a)



Sources: Bank of England, including the wage settlements database (which draws on information from the Bank's Agents, Incomes Data Research, Incomes Data Services, Industrial Relations Services and the Labour Research Department).

(a) Companies were asked to state their expected average UK pay settlement for the next 12 months in the July survey. Companies were asked to state their expected average UK pay settlement for 2022 in the January survey. Bank of England private sector settlements based on average over the previous 12 months, using monthly data.

### Firms have continued to pass through increased costs to prices in order to protect margins...

Contacts of the Bank's Agents across a range of sectors report that they are continuing to pass through higher costs to prices in order to protect margins. Manufacturing output prices continued to rise sharply as a result of higher input costs, while consumer services firms were similarly raising prices in response to higher input, energy and labour costs. Business services firms continue to report significant cost pressure, especially higher wages, and report being able to increase prices by more than normal given strong demand. And retailers also expected to continue passing through costs into consumer prices in coming months.

...and their expectations for future price growth have picked up further, although uncertainty around that outlook remains elevated.

The Bank's DMP Survey suggests that firms expect elevated price inflation to persist over the next year: one year ahead price expectations picked up to 6.3% in the three months to July, on average. The same survey suggests that firms' uncertainty about future prices has been rising for some time, with a sharp increase following the war in Ukraine (Chart 2.19). Staff analysis using these results suggests that higher inflation uncertainty is associated with larger forecast errors by firms in predicting their own price growth.

**Chart 2.19: Firms' uncertainty about future prices remains elevated**

Inflation uncertainty (a)

Index: 2019 = 100



Sources: DMP Survey and Bank calculations.

(a) Three-month moving average. The index is constructed using the standard deviations of expected firm-level price growth over the next 12 months. Latest data from the July 2022 DMP Survey.

### Short-term measures of inflation expectations remain elevated.

Measures of household inflation expectations over the next year remain elevated. Respondents to the Bank/Ipsos Mori expected one year ahead CPI inflation to be 4.6% in Q2, while the corresponding expectation was 6.0% in the July YouGov/Citigroup survey. These measures are correlated with inflation outturns.

### Companies' expectations for inflation in two years' time remain above historical averages, financial market participants expect inflation to return close to target.

Turning to companies' inflation expectations, two year ahead expectations reported in the CBI Distributive Trades survey remained above its historical average in 2022 Q2. The Q2 Deloitte CFO Survey had reported a median expectation for CPI inflation of 3.4% in two years' time.

In financial markets, in the latest Market Participants Survey the median expectation for CPI inflation was 2.2% in three years' time. In the Bank's survey of professional forecasters, the average forecast was 2% in three years' time, in line with the target (Annex).

**Chart 2.20: Long-term inflation expectations are above past averages**

Measures of five year ahead inflation expectations (a)



Sources: Bank of England, Citigroup, Ipsos Mori, YouGov and Bank calculations.

(a) Data are not seasonally adjusted. See Table 2.B in the [February Report](#) for more information about the different measures.

### **Financial market indicators of medium-term inflation expectations have fallen but they, and household indicators, remain above historical averages.**

Financial market indicators of medium-term inflation expectations have fallen from their recent highs. Two-year inflation expectations, five years ahead, which are unaffected by the alignment of RPI and CPIH in 2030, have declined since May but still remain above their 2010–19 average (Chart 2.7). Household measures also remain above historical averages (Chart 2.20). The YouGov/Citigroup five to ten year ahead measure averaged 4.1% over Q2 as a whole, around 1 percentage point higher than its 2010–19 average,

before it edged down in July. The Bank/Ipsos Mori measure is only slightly above its 2010–19 average, but recent results may have been affected by a change in survey method in mid-2020.

## Box C: Agents' update on business conditions

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

Economic activity grew at a moderate pace overall, with output constrained by shortages of labour and goods. Input cost inflation remained elevated, which, combined with increasing labour costs, continued to weigh on companies' margins. To prevent further margin erosion, companies reported passing on higher costs to consumer prices to a greater extent than normal. There were signs of consumer demand softening, as squeezed household incomes depressed spending.

### **Annual growth in the value of spending on consumer goods slowed, reflecting pressure on household incomes.**

Food retailers reported declines in sales values and volumes compared with a year ago as shoppers traded down to cheaper goods and reduced the quantity of goods purchased. Discount supermarkets said they were continuing to gain market share.

There were also widespread reports of a slowdown in nominal sales of durable goods, in particular of household appliances, with contacts reporting that customers were buying cheaper brands or opting to repair rather than replace items. Car dealers reported a reduction in customer enquiries and orders for new cars, and there were some reports of existing orders being cancelled.

Growth in spending on consumer services remained strong in nominal terms, reflecting higher inflation, but was flat in real terms as consumers cut back. Mid-priced hospitality contacts reported weaker demand, while those at the lower-priced end of the market reported stronger demand, and said they were gaining market share. Staycation demand remained reasonably firm and contacts reported hotel occupancy rates being close to or at pre-pandemic levels in most areas. However, contacts said that the number of day trips to some tourist attractions had fallen, possibly reflecting consumers economising on fuel.

Providers of subscription-based services reported weakening renewal rates. There were also reports of households cutting back on discretionary insurance, for example for house contents, and medical and dental services.

Third sector organisations said that the rising cost of living had led to increased demand for their services, in particular debt advice. They also reported rising numbers of people experiencing in-work poverty.

**Business services firms reported strong growth; growth in manufacturing and construction was constrained by shortages of labour and goods, as well as a modest softening in demand.**

Business services contacts continued to report strong annual growth in turnover, particularly in professional and financial services, IT, recruitment services and consultancy, though growth was held back by the availability of staff. There were some modest signs of softening in merger and acquisition activity, and in logistics for some non-essential consumer goods and construction materials.

Manufacturing output continued to grow at a modest pace, held back by shortages of materials and components due to the war in Ukraine and Covid-related restrictions in China. Labour shortages also constrained growth. Demand remained solid for a range of products – supported in part by companies building up stocks to guard against future input price increases – but softened for durable consumer goods.

Contacts reported shortages of sunflower oil, grain, timber, paper, construction materials, steel, IT equipment, titanium, electric motors, microchips and electronic components. However, companies reported taking a variety of actions to minimise the effect of shortages, for example by switching products or changing suppliers – including by near or on-shoring production. Contacts said there was continuing uncertainty over how long supply chain disruption would persist, though the outlook had improved slightly in recent months.

Growth in construction output moderated slightly, but remained about normal, supported by infrastructure, industrial, and health projects. House-building activity also remained strong, though it was constrained by shortages of labour, materials and planning delays. There were some reports of large commercial projects being delayed or cancelled due to rising materials costs and uncertainty about the economic outlook. And demand for home improvements softened, which weighed on activity among smaller builders and contractors.

**Demand in the housing market and for some types of commercial property cooled.**

Housing market demand cooled in most parts of the UK, but continued to outstrip supply. Contacts attributed a slowdown in enquiries and online viewings in recent weeks to concerns about the rising cost of living, and noted that properties were selling at closer to asking prices than previously. There were also reports of lenders making lower mortgage offers than in recent months, reflecting the increased cost of living and higher lending rates.

In commercial real estate, transaction volumes remained high for all types of industrial property and for prime office space. However, contacts reported some properties selling for less than the asking price. The availability of bank credit to finance commercial real estate purchases was reported to have tightened.

Values and rents for retail premises were under renewed pressure, and vacancy rates were reported to be increasing again.

**Investment intentions softened slightly but remained positive; current investment spending continued to be held back by cost pressures and shortages. Credit availability tightened for some firms.**

Investment intentions remained positive, with companies continuing to spend on projects such as improving their IT and automation, and on energy-saving measures. However, more contacts indicated that uncertainty about demand may curtail investment in the future. There were some reports of companies reducing their investment intentions, either due to the uncertain outlook – in particular for hospitality and retail – or because they had completed investment projects that had been delayed during the pandemic and were now returning to more normal levels of investment.

Credit availability tightened modestly, especially for small companies in sectors exposed to elevated costs, for example in the energy, agriculture and construction sectors, and consumer-facing businesses.

Large investment-grade companies said that the cost of raising finance on financial markets had increased. Sub-investment grade companies reported a significant tightening in access to market finance. There had been little change in the availability of bank credit overall for large corporates, though conditions were reported to have tightened for some sectors, such as construction.

Contacts reported increased demand for working capital to cover rising input costs and inventory, though many companies reported having large cash balances. Insolvencies continued to increase, albeit from a low level.

**Recruitment difficulties remained acute, and employment intentions continued to be strong. As a result, pay settlements increased further.**

Companies reported ongoing, broad-based recruitment difficulties, with attrition and vacancy rates higher than normal for many contacts. Employment intentions also remained positive, driven by expected growth in demand and the need to replace leavers. A survey of Agents' contacts showed that companies would ideally like to expand headcount by around 7% over the coming year, but expected to be able to increase headcount by only around 4% due to recruitment difficulties (Section 3). That is similar to the growth in employment firms reported over the past 12 months. There was little evidence of companies planning to reduce headcount.

Wage inflation remained elevated, mainly due to labour shortages, but also in response to higher inflation. According to the Agents' survey, pay settlements were expected to increase by around 6% over the next 12 months, a little higher than in the corresponding survey discussed in the [February 2022 Report](#) (Section 2). And around a quarter of respondents have given or are considering awarding one-off payments to compensate staff.

**Input price inflation remained elevated; many companies expect to pass on higher costs into prices to protect margins, which remained below normal.**

Contacts said that input price inflation remained elevated for a wide range of goods, with the weakness of sterling contributing to cost pressures for many companies.

Most companies said that margins remained below normal levels, and contacts continued to increase output prices to prevent further margin erosion. However, companies in sectors where demand was weakening were less likely to raise prices due to concerns about losing sales to competitors. This was especially true for companies that manufacture and/or retail consumer goods.

For example, companies reported offering incentives such as discounts and interest-free credit to stimulate demand for big-ticket items such as furniture – though with limited success. Used car prices eased back from their recent peak.

By contrast, supermarkets reported annual food price inflation of 5%–9%. They expected food price inflation to increase in the coming months despite efforts to stabilise the prices of essential items.

Clothing retailers reported annual inflation of 5%–7%, with robust demand for holiday and formal wear and lower stock levels than last year. And companies in a range of other consumer-facing sectors, such as hospitality and tourism reported

putting up prices to cover increased input, energy and labour costs.

## Box D: How have the interest rates facing households and firms responded to the rise in Bank Rate?

An important way in which monetary policy affects the economy is through its effect on the interest rates facing households and firms.

Prior to the August MPC meeting, Bank Rate had increased by 115 basis points since December 2021. Bank Rate is the main 'reference rate' or 'risk-free rate' for some retail products, but term overnight index swap (OIS) rates are the key reference rate for others, and largely reflect expectations for the path of Bank Rate. OIS rates have been increasing since August 2021, rising by around 240 basis points.

In addition to changes in risk-free rates, banks and other lenders take a number of other factors into account in their pricing of interest rates to households and businesses, such as credit risk charges, funding spreads and other costs.<sup>[1]</sup> These might vary at the same time as changes in reference rates, making it difficult to isolate the precise impact of the rise in reference rates.

Notwithstanding this issue, the evidence set out in this box suggests that there has been full pass-through of the increases in risk-free rates to interest rates on new fixed-rate mortgages, with less pass-through to instant access deposit rates. There could be further increases in household and business interest rates as the most recent rises in risk-free rates feed through.

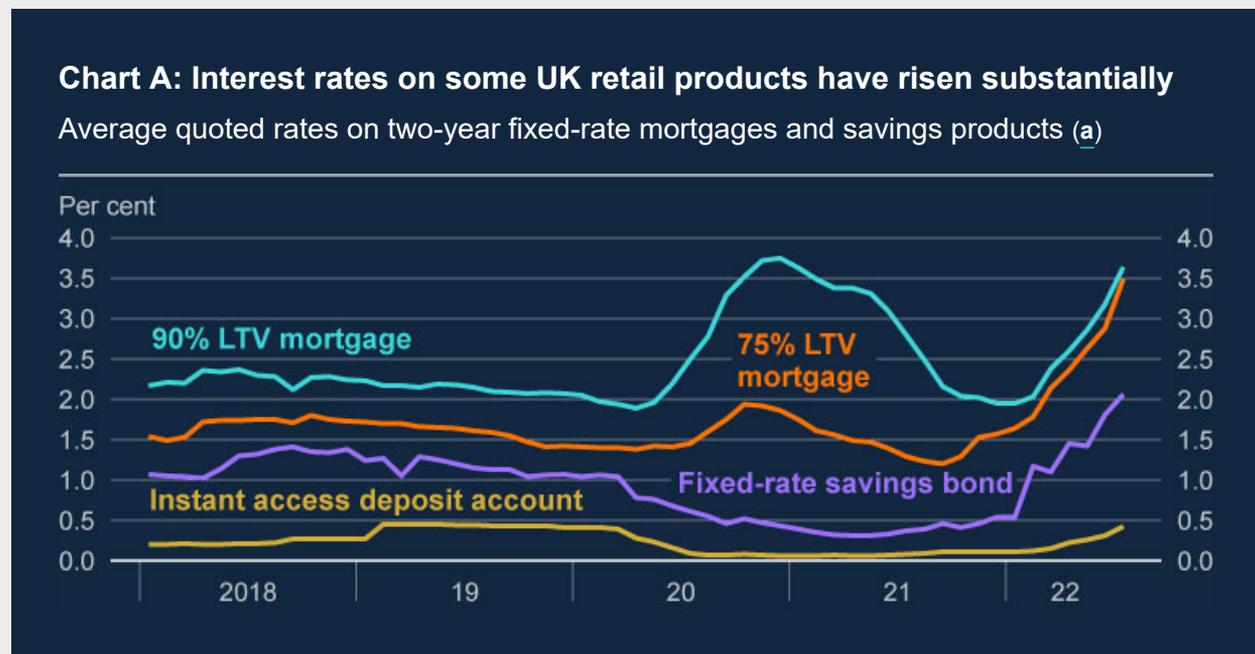
### **Since the autumn of 2021, there has been full pass-through of the increases in risk-free rates to new fixed-rate mortgages...**

Interest rates on new mortgages have increased substantially since August 2021 (Chart A). For example, the average quoted rate on a two-year fixed rate 75% loan to value (LTV) mortgage has increased to 3.5%, around 225 basis points higher than in August 2021 and the highest rate since 2012. That is broadly in line with the increase in the relevant risk-free rate (Table 1), suggesting that the rise in reference rates has been fully passed through.

While new mortgage rates have gone up substantially, existing mortgagors on a fixed-rate product will not face higher interest rates until the end of the initial fixed-rate period (Box C of the [February 2022 Report](#)). However, over half of the outstanding stock of fixed-rate mortgages will still reach the end of the fixed-rate

period within the MPC's forecast period. A borrower on a floating-rate mortgage will face higher interest rates relatively quickly. For example, with an outstanding mortgage balance of £140,000 and a remaining term of 17 years, monthly interest payments would increase by around £80 as a result of the increase in Bank Rate from 0.1% to 1.25%.

The overall increase in interest rates on high LTV fixed-rate mortgages since August 2021 has been less than for lower LTV mortgages (Table 1). That is primarily because towards the end of 2021, interest rates on high LTV products continued to decline (Chart A) even as risk-free rates were rising. Supervisory intelligence suggests that other factors were offsetting the impact of rising risk-free rates. Notably, the improvement in the macroeconomic outlook after the height of the pandemic was reducing the credit risk associated with this lending.



(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 February 2019 the method used to calculate these data was changed. For more information, see ['Introduction of new Quoted Rates data – Bankstats article'](#). Latest quoted rates data are flash estimates for July using data to 25 July and are provisional until publication on 5 August.

### Table 1: Higher risk-free rates have been fully passed through to new fixed-rate mortgages

Changes in average quoted rates on two-year mortgages and savings products and the relevant risk-free rates (a)

	Household borrowing rate		Household deposit rate	Relevant reference rate
	Two-year fixed rate, 75% LTV mortgage	Two-year fixed rate, 90% LTV mortgage	Two-year fixed-rate bond	Two-year OIS rate
<b>Change since August 2021</b>	+225 basis points	+115 basis points	+165 basis points	+240 basis points

	Household borrowing rate		Household deposit rate	Relevant reference rate
	Two-year 75% LTV variable rate mortgage	Credit cards	Instant access deposit account	Bank Rate
<b>Change since November 2021</b>	+75 basis points	+25 basis points	+30 basis points	+115 basis points

Sources: Bank of England, Bloomberg Finance L.P. and Bank calculations.

(a) See footnote (a) on Chart A. Data are monthly averages to 25 July compared to monthly averages in August 2021 and November 2021 respectively. Data are rounded to the nearest 5 basis points.

Around 70% of all households do not have a mortgage but some of these households may be using unsecured borrowing. Interest rates on credit cards and personal loans tend to be less sensitive to changes in Bank Rate, as factors such as the credit risk associated with the lending are more important. Rates on these products have increased by much less since November 2021.

**...although there has been much less pass-through to household instant access deposits.**

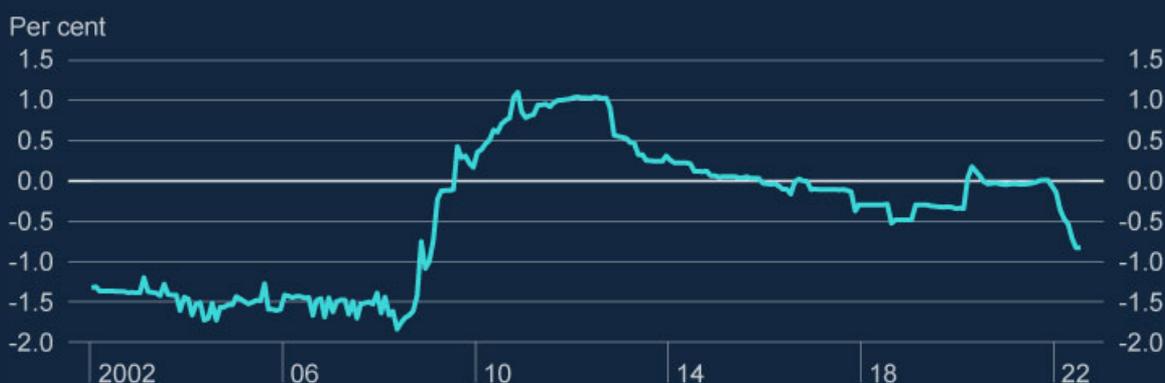
The majority of all household deposits – around two thirds – are in instant access accounts. Interest rates on these are up by only around 30 basis points since November compared to the more marked increase in fixed-rate bonds (Table 1), which account for a smaller share of household deposits. The limited increase in instant access rates has turned the spread between these rates and Bank Rate

negative (Chart B). Prior to 2008, instant access deposit rates were well below Bank Rate, but when Bank Rate was cut close to zero, deposit rates fell by less as banks and building societies did not impose negative interest rates on deposits. In the period that followed, instant access deposit rates were – unusually – higher than Bank Rate. Partial pass-through of the recent increases in Bank Rate may in part reflect a desire to normalise this spread over time. The fact that banks have a plentiful supply of retail funding – as suggested by the Bank Liabilities Survey – is likely to make it easier to do that, because it reduces the incentive to increase rates to attract new deposit funding.

As Bank Rate moves further from the lower bound, the rate of pass-through from Bank Rate to instant access deposits may rise. Indeed, the increase in instant access rates after the most recent rises in Bank Rate seem to be a little greater than occurred initially (Chart A).

### Chart B: Partial pass-through of increases in Bank Rate to instant access deposit rates has turned the spread negative once again

Instant access deposit spread to Bank Rate (a)



(a) Prior to 2011 the spread is constructed using data on time deposit spreads and assumes that spreads on time deposits and instant access accounts moved in parallel. Data are monthly averages to 25 July.

### The increases in Bank Rate appear to have been fully passed through to new bank lending rates to corporates.

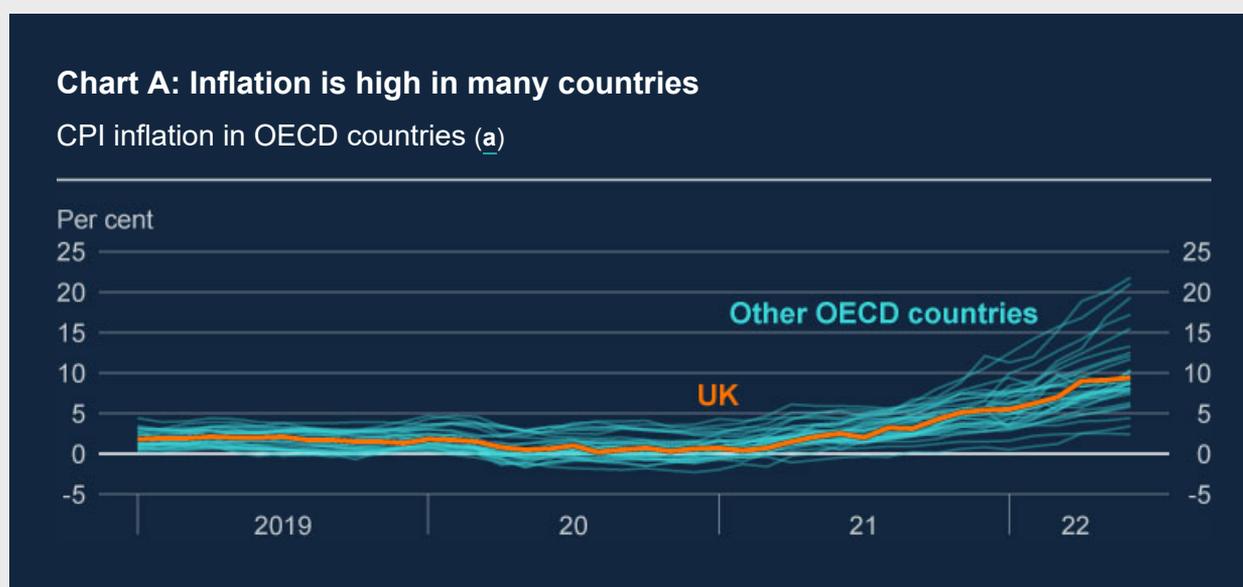
Around three quarters of the stock of corporate bank debt has a variable interest rate, with changes in reference rates, such as Bank Rate, reflected fairly quickly in the interest rates that companies pay. The effective rates on new lending to private non-financial corporations and to small and medium-sized enterprises (SMEs) were

around 105 and 85 basis points higher respectively in June than in November. This suggests that the rise in reference rates has been fully passed through, particularly since these data may not yet fully reflect the increase in Bank Rate in June.

As set out in the [July 2022 Financial Stability Report](#), a large part of the additional debt taken on by SMEs during the pandemic has been provided through government schemes at relatively low interest rates. These are fixed for periods of up to six years and so will not be affected by changes in reference rates for some time.

## Box E: How does consumer price inflation compare across countries?

UK CPI inflation was 9.4% in June, and is expected to increase further in coming months (Section 2.3). Inflation has also picked up in other countries (Chart A). The coincidence of high inflation in many places underlines the key role of global factors in driving inflation, including shocks to global food, energy and goods prices. There are some differences between regions, however. Energy prices are contributing more to inflation in the UK and euro area, partly reflecting Russia's role in supplying gas to Europe. Services inflation has been higher in the US and UK, reflecting a greater role for labour market tightness. And goods price inflation is a little higher in the UK at the moment. This box sets out some of these similarities and differences in more detail.



Sources: OECD and ONS.

(a) Latest data points are for June 2022. All OECD member countries are shown except Australia, New Zealand and Turkey. See [OECD – CPIs – Frequently Asked Questions](#) for more details.

**Headline inflation rates are elevated almost everywhere, underlining the key role of global factors.**

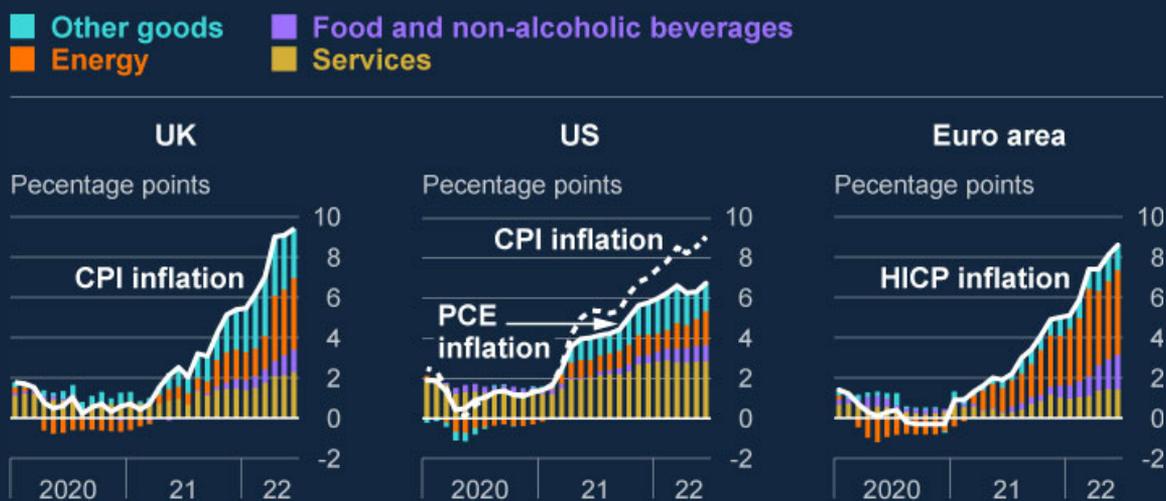
Consumer price inflation rates are elevated almost everywhere. Of the 38 countries in the OECD, all but five currently have inflation rates above 6%, and over half have inflation rates above 8% (Chart A). Some countries in Northern Europe have inflation rates as high as 20%.

In the UK, CPI inflation was 9.4% in June. Euro-area HICP inflation, which is constructed on the same basis as UK CPI, was 8.6% in June (Chart B). The flash estimate for July was 8.9%. Inflation is measured somewhat differently in the US. US PCE inflation – the Federal Reserve’s preferred measure of inflation – was 6.8% in June, while US CPI inflation was 9.1%. Neither measure is exactly comparable to the UK and euro-area measures.

The coincidence of high inflation in all three of these major economies, as well as in other countries, underlines the dominant role of global factors in driving inflation rates at the moment. These factors include: the economic recovery from the pandemic; global supply chain disruption, including from China; and the Russian invasion of Ukraine.

### Chart B: Inflation has picked up across the UK, US and euro area

Contributions to annual consumer price inflation (a)



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.

**Energy prices have increased globally, but they are making a larger contribution to inflation in the UK and euro area than in the US, partly reflecting Russia’s role in supplying gas to Europe.**

Energy prices have increased almost everywhere, but the effects on consumer price inflation have been larger in the UK and euro area than in the US. Energy was directly contributing over 3.5 percentage points to inflation in the UK and euro area in June; in the US the contribution was around half of that (Chart B).

Energy includes both motor fuel and energy used in the home. The US has higher motor fuel inflation than the UK and euro area, in part because fuel taxes are lower, so changes in global oil prices result in larger percentage changes in pump prices.

The larger overall impact from energy prices in the UK and euro area is the result of a larger contribution from household energy price inflation. European and UK natural gas prices have gone up much more than US gas prices (Chart 2.4). Gas is traded via a network of pipelines around Europe, and Russia has typically been a major supplier to that network. The Russian invasion of Ukraine has led to disruption to that supply, and concerns that supply could be further restricted in the future. Although gas can be traded between Europe and the US in liquid form by ship, there are extra costs involved and limited capacity, so price differences between regions can be persistent (Section 3 of the [May Monetary Policy Report](#)). Household energy has a larger weight in the euro-area measure of inflation than in the UK's; this means that even though energy price inflation is lower in the euro area, it makes a larger contribution to the headline rate.

### **| Energy inflation may peak later in the UK than in the euro area.**

Energy price inflation may peak later in the UK compared with the euro area because of the operation of the UK's household energy price caps. Most UK households are now on variable-rate energy tariffs that have their prices capped by the UK's energy regulator, Ofgem. These caps are updated periodically to reflect changes in the costs faced by energy providers. In recent years, the caps have been updated twice a year. As a result, there has been a relatively long lag between changes in wholesale energy price changes and changes in the prices faced by households. Reflecting that longer lag, UK energy price inflation has been lower than elsewhere until very recently (Chart C). From next year, Ofgem will update the cap four times a year, so consumer prices will respond more quickly to changing wholesale prices.

There is a lot of variation in household energy price inflation rates across euro-area countries: some countries, such as France, have seen prices rise by less than 30% over the past year, while some countries, such as the Netherlands, have seen

prices increase by over 80%. This variation partly reflects differences in government policies. Most euro-area countries have adjusted energy taxes in some way, and some have imposed caps on retail or wholesale prices ([Sgaravatti et al \(2022\)](#)).

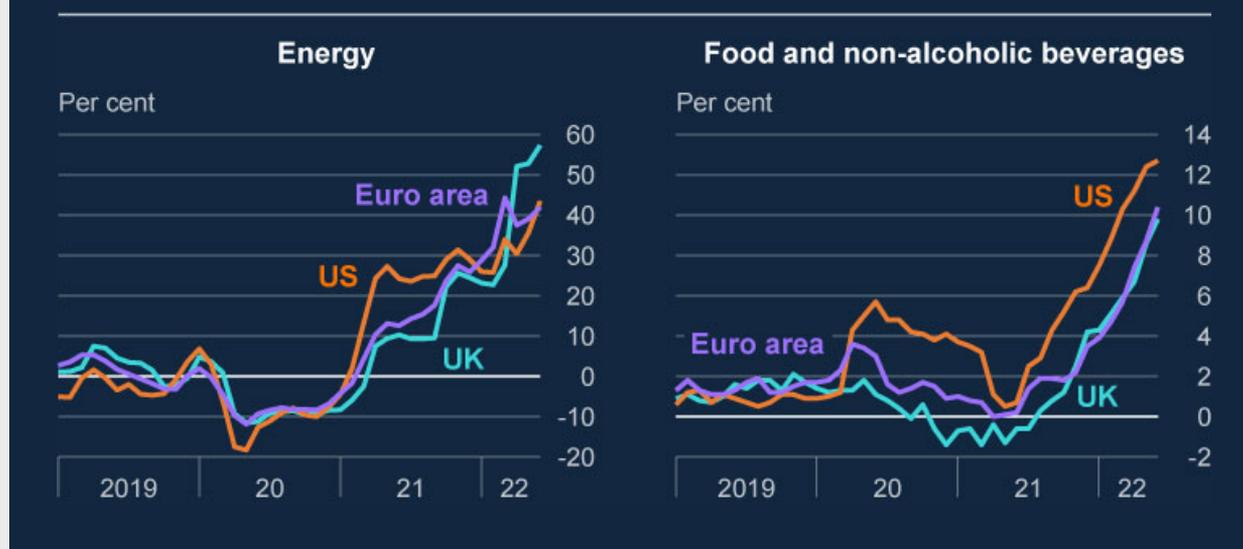
**All three regions are experiencing elevated rates of food price inflation.**

Food prices have also increased around the world, largely because of supply issues. Russia's invasion of Ukraine has been a particularly significant shock to food supply. The two countries account for a large share of global production of some agricultural commodities, such as sunflower oil and wheat (see Box B in the [May Monetary Policy Report](#)). The conflict has disrupted the supply of these goods, resulting in prices increasing sharply, although they have fallen back recently (Chart 2.5). Higher energy prices have also contributed to the rise in food prices because energy is an input into food production.

The UK and euro area have had very similar rates of food price inflation recently (Chart C). In June, UK food prices were 9.8% higher than a year earlier; in the euro area they were 10.4% higher. US food price inflation was higher, at 12.7%. But food has a higher weight in the euro-area measure than in the UK and US, so the contribution of food to the headline rate of inflation is largest there (Chart B).

### Chart C: Energy and food prices have increased everywhere

Energy and food price annual inflation (a)



Sources: Eurostat, ONS, US Bureau of Economic Analysis and Bank calculations.

(a) Energy includes fuel and household bills. Food includes non-alcoholic beverages.

**Services inflation has been highest in the US, on average, over the past year, possibly reflecting labour market tightness.**

Services inflation has also picked up in all three places, although to varying degrees. The US had the fastest rate of services price inflation over 2021 and early 2022 (Chart D). The UK's rate was lower over 2021, but was higher in June, at 5.2%. Services inflation has been lower in the euro area, and was 3.4% in June.

The pickup in all three places reflects the economic recovery from the pandemic causing labour markets to tighten and wage growth to rise, although the degree of tightness varies across countries. Labour markets appear tighter in the US and UK than in the euro area (Section 2.1). This is consistent with services price inflation having been strongest in the US, with the UK not too far behind. Services prices will also have been pushed up by higher food and energy prices, as these will be used as inputs for certain services.

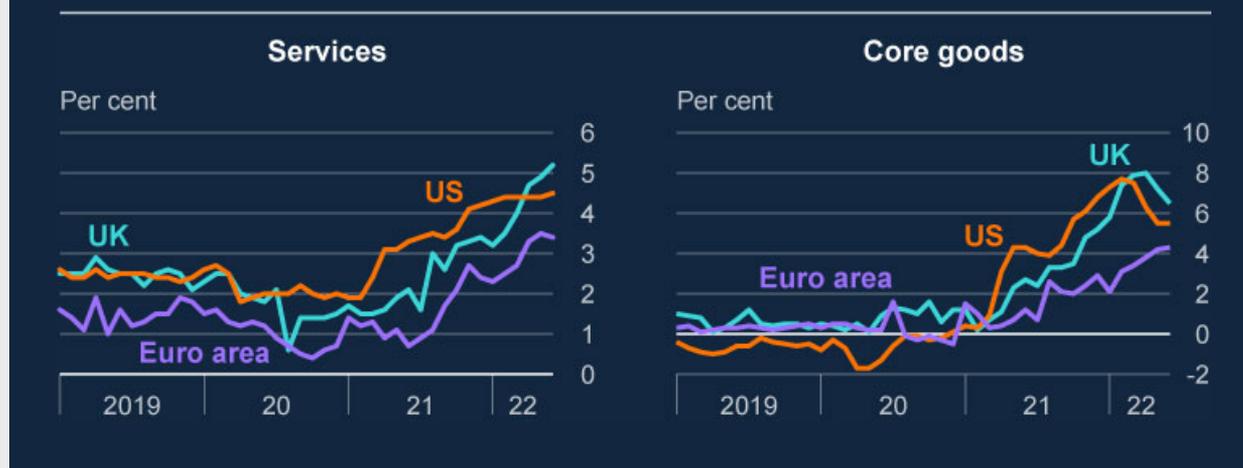
**Goods price inflation has also picked up.**

Finally, the inflation rate for core goods has also picked up in the UK, US and euro area (Chart D). Goods are often tradable between countries, so prices are influenced by global factors. Since the start of 2021, there has been strong global demand for goods, and some disruption to global supply chains (Box B in the [February Monetary Policy Report](#)). As a result, goods price rises have been widespread.

However, factors such as transport costs and tariffs prevent goods prices being exactly equal across countries, and providing goods to consumers almost always requires at least some domestic labour. As a result, goods prices can also reflect local economic conditions, and there has been some variation in goods price inflation across countries.

### Chart D: Services price and goods price inflation have picked up everywhere, although there are some differences across regions

Services and core goods price annual inflation (a)



Sources: Eurostat, ONS, US Bureau of Economic Analysis and Bank calculations.

(a) Core goods is all goods except energy, food and beverages. In the case of the UK and euro area, it also excludes tobacco.

#### US goods price inflation picked up earlier than elsewhere, reflecting particularly strong demand, especially during the pandemic.

The US has experienced the highest rates of goods price inflation until recently (Chart D). Durable goods inflation has been particularly strong, peaking at 11.5% earlier this year on the PCE measure. Used car prices rose especially steeply. Demand for goods has been particularly strong in the US as a result of strong growth in household incomes and a shift in demand from services to goods during the pandemic. Goods inflation has started to fall more recently as some prices, such as car prices, stabilise at their new levels.

#### Core goods price inflation has been somewhat higher in the UK than the euro area recently. This might reflect some UK prices recovering from unusually low levels in the pandemic. It may also reflect the tighter labour market.

Core goods price inflation in the UK was 6.5% in June, higher than the euro area, where it was 4.3%. Some of the strength of goods price inflation in the UK relative to the euro area might reflect a normalisation in price levels. Clothing and footwear prices were particularly low in the UK in 2020 because of discounting in the pandemic; inflation in this component has subsequently been higher than in the euro area.

Higher goods price inflation in the UK and US compared to the euro area may also reflect labour market tightness. Although services inflation is often assumed to be a clearer indicator of domestic inflationary pressures, almost all goods embody some domestic labour input as well. As a result, higher goods inflation might reflect some of the same drivers of higher services price inflation.

### 3: In focus – Why is the labour market so tight?

The overshoot of the 2% inflation target mainly reflects previous large increases in global energy and other tradable goods prices, but domestic inflationary pressure has also been strengthening recently (Section 2.3). Part of the strengthening in underlying nominal wage growth reflects the UK labour market being tighter than it was before the pandemic. The unemployment rate has been around its pre-Covid trough for some months (Chart 3.1), despite output being only a little above its pre-Covid level. And the high level of vacancies and other measures of recruitment difficulties also suggest that the labour market is tighter than implied by the unemployment rate alone (Section 3.1).

Section 3.2 looks at the factors that have contributed to the recent tightening in the labour market. Labour supply is lower than pre-Covid: an unusually large number of people have left the workforce during the pandemic and although some have now returned, many have not. In contrast, labour demand is above pre-Covid levels.

How labour market tightness evolves will be a key factor determining wage growth and domestic inflationary pressure over the medium term. This is because inflationary pressure stemming from the labour market has tended to be more persistent in the past than that caused by factors such as the cost of energy.

Section 3.3 sets out the MPC's projection for the labour market and the risks around it. In the central case, the labour market remains tight and firms initially respond to the weakness in aggregate demand by using their existing inputs less intensively. The unemployment rate then picks up above 4% in the middle of 2023, rising to 6¼% by the end of the forecast (Chart 3.1). This contributes to economic slack which moderates domestic inflationary pressures. But there is uncertainty around how labour market tightness will respond to slowing demand. Labour demand may slow in line with aggregate demand, leading to a quicker rise in unemployment. But if the fall in labour supply is currently the limiting factor in the labour market, constraining hiring and firms' output, then it may take even longer for the labour market to loosen materially in response to falling demand. The evolution of labour market tightness will also depend on how persistent the effects of the pandemic are on labour force participation.

### Chart 3.1: The unemployment rate is expected to rise from the middle of 2023 following a slowing in demand

The unemployment rate and the MPC's baseline projection (a)



Sources: ONS and Bank calculations.

(a) Diamonds show the MPC's baseline projection for Labour Force Survey unemployment in 2022 Q3, 2023 Q3, 2024 Q3 and 2025 Q3.

## 3.1: How has the labour market evolved since the pandemic?

### The labour market was materially affected by Covid...

The pandemic caused large changes in the labour market. Demand for labour fell sharply, with the number of vacancies falling by 60% in just four months. Hiring flows, both between jobs and into employment, also fell sharply. Significant numbers of employees were furloughed, which kept them attached to the labour market, even as demand fell. While the furlough scheme prevented widespread job losses, the unemployment rate still rose to a peak of 5.2% in 2020 Q4, rising by more than 1 percentage point in a year (Chart 3.1).

### ...but now appears tighter than before Covid across a range of measures.

The unemployment rate has since reversed that rise and was 3.8% in the three months to May 2022, equal to its pre-pandemic trough (Chart 3.1). The proportion of people in employment is only a little below early 2020 levels but many people have left the labour market. The proportion of people not working but also not actively seeking a job – 'inactive' in the labour market – rose by more than a percentage point in the first year of the pandemic, the sharpest 12-month rise on record. It has remained higher than pre-

Covid since, even as the economy has recovered. Inactivity has fallen back somewhat over the past few months, and employment has risen, but there are still many more people inactive than before the pandemic (Chart 3.2).

### Chart 3.2: Unemployment has fallen back but the number of people inactive in the labour market remains much higher than pre-Covid

Changes in employment, unemployment and inactivity since 2019 Q4 (a)



Sources: ONS and Bank calculations.

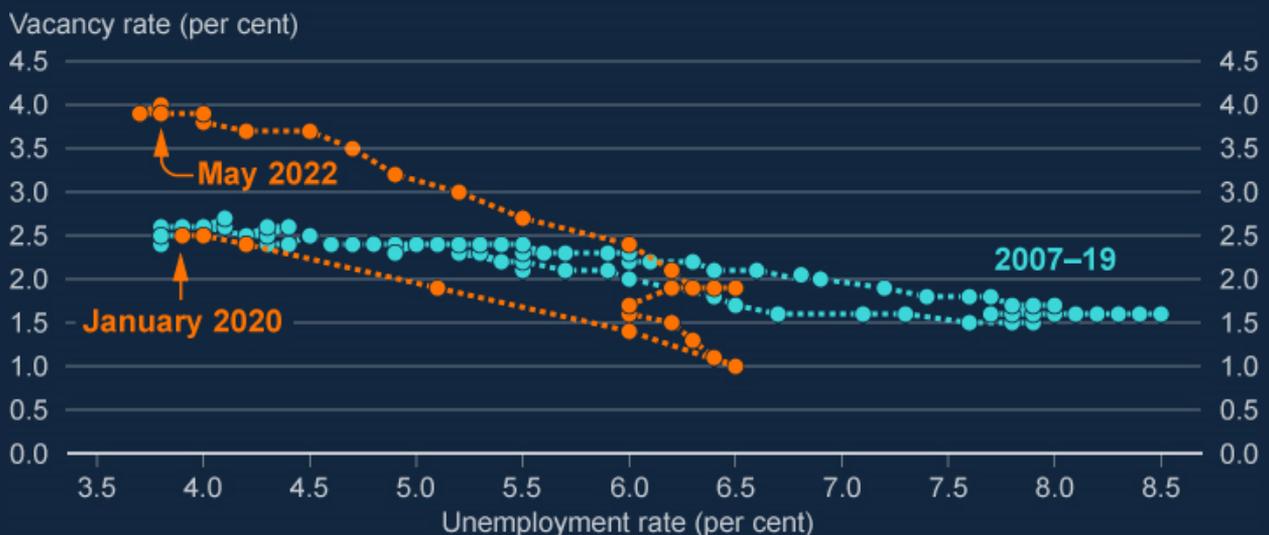
(a) For those aged 16 and over. Employment includes employees and self-employed. Changes do not sum to zero as the population is estimated to have increased during the period.

The labour market is tighter than before the pandemic, and appears tighter than the unemployment rate alone would suggest. Vacancies have continued to climb in recent quarters, setting new record highs. The rise in vacancies and fall in unemployment means there is now a similar number of vacancies to the number of unemployed people. The Beveridge curve (Chart 3.3), which compares the vacancy rate against the unemployment rate, shows that although unemployment is currently around the same level as in January 2020, there are many more unfilled vacancies ([Haskel \(2021\)](#)). Other measures of labour market tightness paint a similar picture. For example, the ONS underemployment rate – which measures the proportion of workers that want to work more hours – is at its lowest level for more than 15 years. The marginal attachment ratio – the proportion of the population who report that they would like a job but are not actively seeking one – is more than 2 percentage points lower than pre-Covid. On the basis of this evidence, the MPC

judges that the ratio of vacancies to unemployment is giving a better read on labour market tightness than the gap between the unemployment rate and its medium-term equilibrium.

### Chart 3.3: The vacancy rate is much higher than before the pandemic even though the unemployment rate is similar

Vacancy rate and unemployment rate (a)



Sources: HMRC, ONS and Bank calculations.

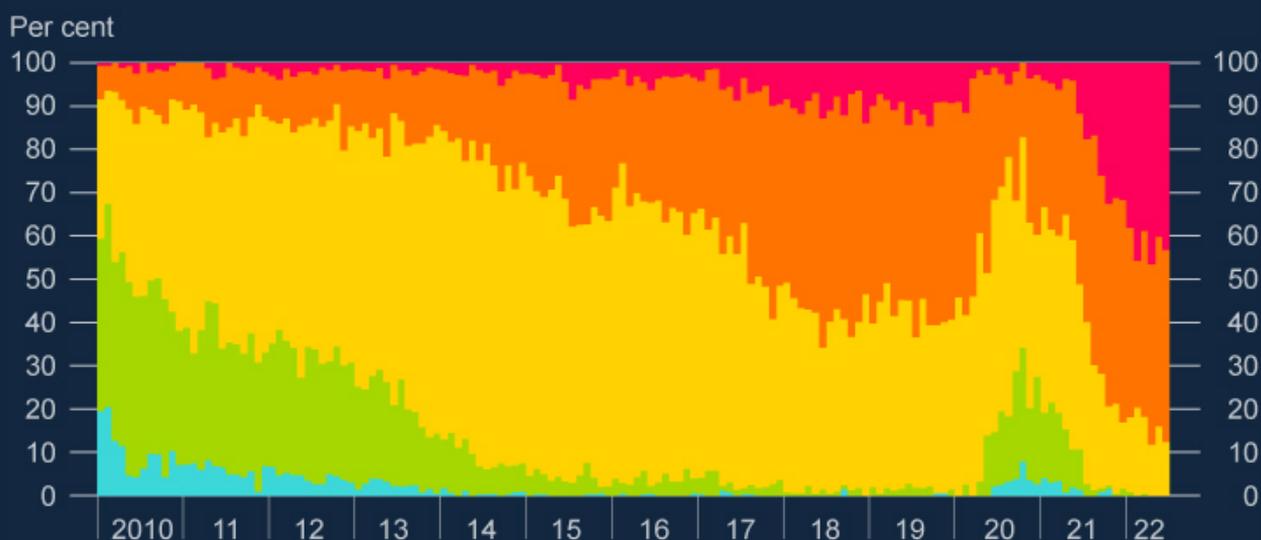
(a) Three-month moving averages. Latest data is for the three months to May 2022. Vacancy rate is the number of vacancies divided by total employment. The unemployment figures have been increased to reflect an MPC judgement that 10% of those furloughed between March 2020 and September 2021 were actively searching for work.

Recruitment difficulties still appear elevated. The Bank's Agents' score for recruitment difficulties remains at a series high and more than 80% of companies are reporting that recruitment conditions are quite or very tight in company visits (Chart 3.4). The staff availability index pointed to a decline in overall labour availability for the sixteenth month in a row in the June KPMG/REC UK Report on Jobs.

### Chart 3.4: Recruitment difficulties are elevated

Agents' company visit scores for recruitment conditions (a)

■ Very loose ■ Quite loose ■ Close to normal ■ Quite tight ■ Very tight



Sources: Bank of England and Bank calculations.

(a) The Bank's Agents assign company visit scores on a regular basis. For this chart, the scores are associated with the following recruitment conditions: -5 and -4 are very loose; -3 and -2 are quite loose; -1, 0 and +1 are close to normal; +2 and +3 are quite tight and +4 and +5 are very tight. Data are for company visits carried out until the end of June 2022.

### That appears to have contributed to a firming in underlying nominal wage growth, an important component of domestic inflationary pressure.

Nominal wage growth has continued to be robust, at higher rates than before the pandemic. Bank staff's estimate of underlying private sector regular pay growth, which strips out estimates of compositional and furlough effects, is around 4½% (Section 2.3). This is materially higher than pay growth in early 2020.

At least part of the strengthening in wages has been driven by labour market tightness. As recruitment has become more difficult for employers, they have been offering higher salaries to new joiners and some have been including joining bonuses. There were continued reports among contacts of the Bank's Agents of staff being offered higher pay to switch company, particularly in sectors where skills shortages are most acute. Bank staff analysis using the DMP Survey shows that firms reporting that recruitment is much harder than normal have experienced more than half a percentage point higher pay growth than other firms.

**| This tightness has occurred despite output only just reaching pre-Covid levels.**

Overall, indicators suggest that the labour market is tighter than before the pandemic, a period where the labour market was already judged to be fairly tight (Section 3 of the [January 2020 Report](#)). This is in contrast to output which has only just recovered to its pre-Covid levels, and remains materially below the level its pre-Covid trend would have implied. Labour market tightness could have occurred in this context if there had been a marked deterioration in the underlying trend in labour productivity, resulting in firms needing to hire more workers to produce the same output. This may have occurred to an extent: aggregate labour productivity growth during the pandemic has matched the weak pre-pandemic trend, but has been lifted by compositional effects, as some lower productivity sectors have shrunk as a share of GDP. But other factors are likely to have been more important drivers of labour market tightness at present.

## 3.2: What is driving tightness in the labour market?

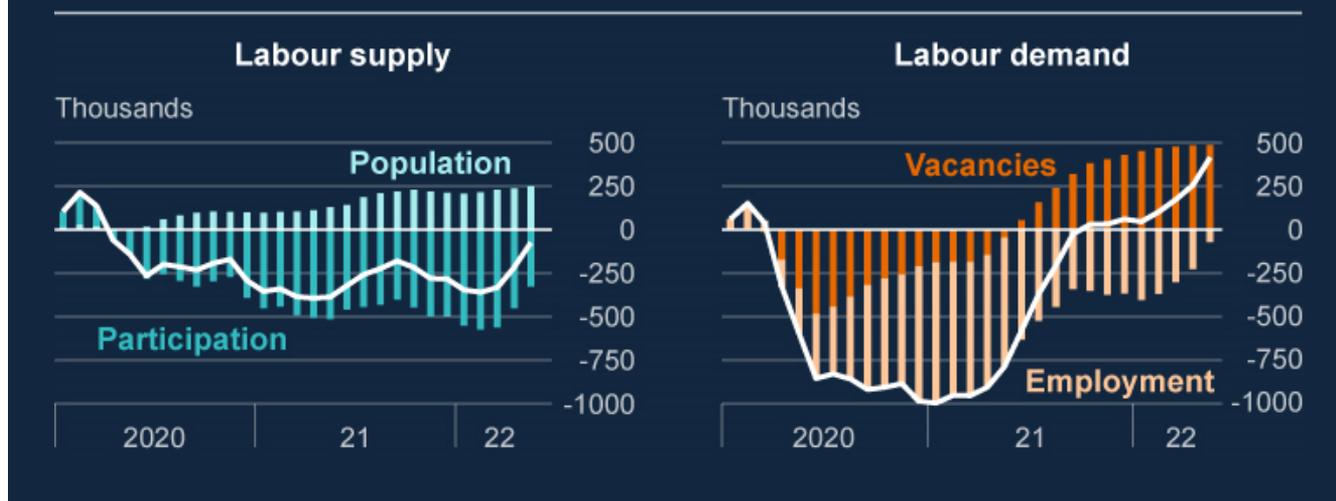
### Labour supply

**| One of the factors contributing to tightness is constrained labour supply and, in particular, a fall in the proportion of the population participating in the labour market.**

A key reason that firms are struggling to recruit while employment remains below pre-Covid levels, is that the supply of people available to work remains lower than at the start of 2020 (left panel of Chart 3.5). In particular, there has been a fall in the proportion of the population participating – or being ‘active’ – in the labour market. While reduced participation was expected initially, as people were unable to search for work and some were cautious about social contact, it remained weak as the economy reopened and has only recently started to pick up. Looking at the factors driving lower participation can give an insight into whether, and how quickly, those who are still outside the labour market will return.

### Chart 3.5: Labour supply remains below its pre-Covid level while labour demand has recovered

Changes in labour supply and labour demand since 2019 Q4 (a)



Sources: ONS and Bank calculations.

(a) Changes since the three months to December 2019. Labour supply shows the number of people in employment and unemployment. Population contribution shows the increase in labour supply if the participation rate had been unchanged. Participation contribution shows the difference due to a changing participation rate. The number of people currently employed plus vacancies (additional desired employment) is a measure of labour demand.

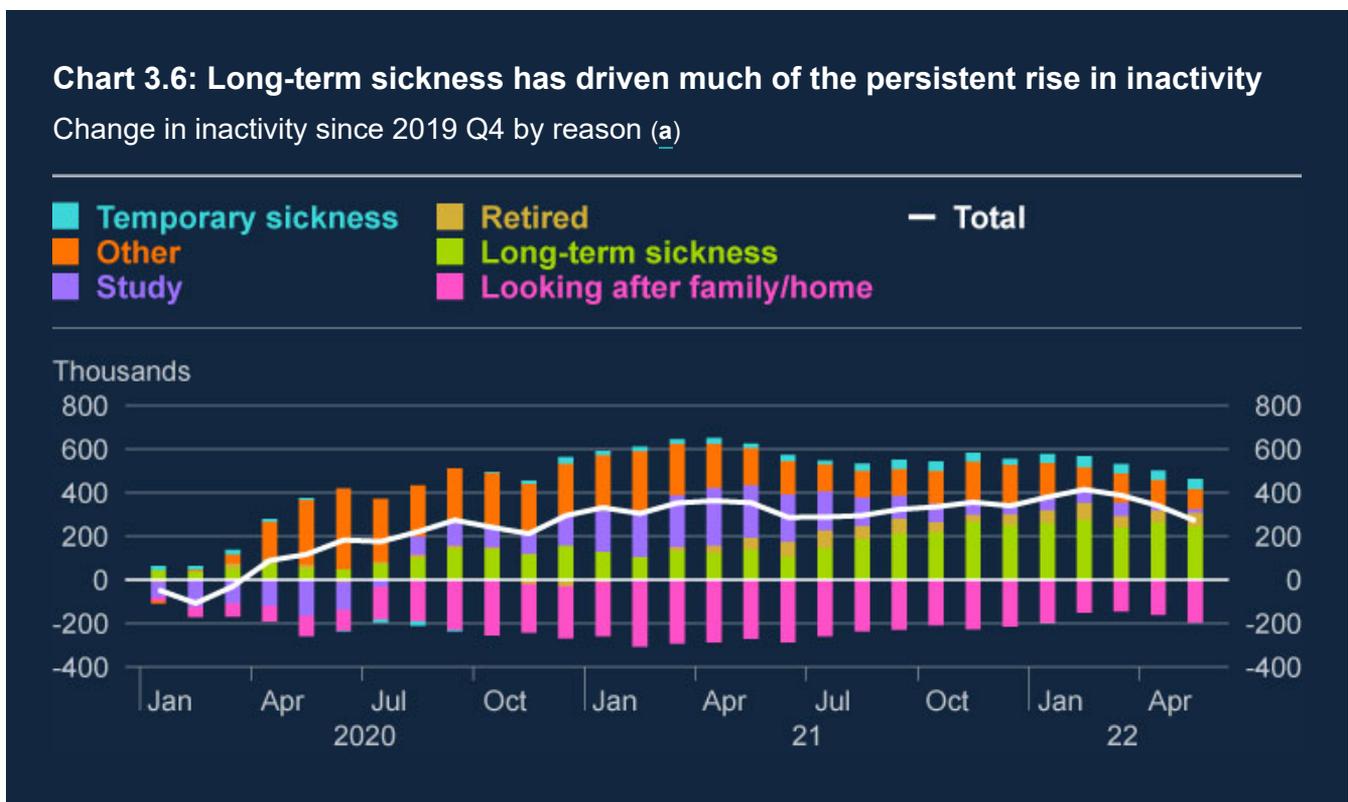
### Inactivity due to long-term sickness has remained persistently higher than before Covid.

Long-term sickness appears to be one of the main reasons behind high levels of labour market inactivity (Chart 3.6). While many people with long-term health conditions participate in the labour market, the rate of participation is lower than among the rest of the population. The proportion of the population with a long-term health condition has been rising for some time ([Haskel and Martin \(2022\)](#)), in part because of the ageing population, so some increase in inactivity due to long-term sickness would have been expected even without the pandemic. But there are signs this trend has accelerated. In addition, the participation rate for those with long-term health conditions had been rising in previous years but this has stalled since the start of the pandemic.

It is likely that Covid and associated delays in treatment for other conditions have played a significant role in the increase in inactivity due to long-term sickness. Just under two million people reported to the ONS that they have long Covid as of 4 June. Around 20% of those people report that this reduces their ability to undertake day-to-day activities a lot. Those with existing health conditions may have also left the labour force in order to shield

from Covid. In addition, participation may be lower due to the effects of other long-term health conditions, which may have been more difficult to treat than before the pandemic given capacity pressures in the healthcare sector.

It is difficult to judge how long these pandemic-related effects will last. The number of people with long Covid declined in the most recent ONS data and those shielding from Covid may return to the labour force. More generally, if experiences during the pandemic lead to more widespread flexible working practices, more people with health conditions could participate in the labour market. That said, much of this effect may have already occurred and it is unlikely to benefit all workers as many jobs cannot be done from home.



Sources: ONS and Bank calculations.

(a) Changes from the three months to December 2019, 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.

**While early retirement appears to be a smaller part of the story, these people might be less likely to return to the labour force.**

Firms have reported to the Bank’s Agents that some of their employees have reconsidered their plans during the pandemic and taken early retirement. According to Labour Force Survey (LFS) data on reasons for inactivity, this channel is fairly small relative to other factors (Chart 3.6). Data on labour market flows which capture the

characteristics of people changing labour market status suggest a larger role for early retirement in explaining the pickup in inactivity ([IFS \(2022\)](#)). But these data have a smaller sample size than the headline LFS measures.

Those who have taken early retirement might not be expected to return to the labour market, unless there is a significant change in their preferences or circumstances. The hit to real income from higher prices could cause some people to return if finances become stretched, but the Bank's Agents report little evidence of this happening so far. Fifty-nine per cent of respondents to the ONS's Over 50s Lifestyle Study who had left the labour market in 2021 said they would not consider returning to work in the future. While early retirement might weigh on participation over the next few years, it is less likely to have affected future retirement decisions, so the effects on the participation rate should fade over time.

### **| There have also been increases in inactivity for other reasons.**

An important driver of the rise in inactivity earlier in the pandemic was from those inactive because they were a student (Chart 3.6). This could have reflected some people deciding to undertake study rather than search for work because of the pandemic, or existing students being unable to find a job alongside their studies. But the number inactive due to being a student is now back to around pre-pandemic levels.

Those inactive for other reasons (see notes to Chart 3.6), also rose early in the pandemic. Some of this may have reflected the difficulty of searching for a job during lockdowns or those discouraged from searching for work because they believed no jobs were available. But as the labour market has opened up, inactivity due to other reasons has returned much closer to previous levels.

### **| Whatever the reason for inactivity, there has been a rise in the number of 'inactive' people who do not want a job.**

Regardless of the reason for leaving the labour market, over 80% of working age people who are inactive state that they do not want a job, almost 3 percentage points higher than before the pandemic. This increase has more than accounted for the rise in inactivity overall. This could point to some of the fall in participation persisting, although some of the recent fall back in inactivity has been from those who previously did not want a job.

### **| Long-running demographic trends have also been weighing on labour supply growth.**

Long-running demographic trends are weighing on labour supply growth. One factor has been a rising share of older people, who are less likely to participate in the labour market, in the population. For much of the past two decades, that effect was offset by factors boosting participation such as higher educational attainment and the rising state pension age for women ([Saunders \(2022\)](#)). But the boost from those factors has been levelling off and the share of older people is expected to grow more rapidly.

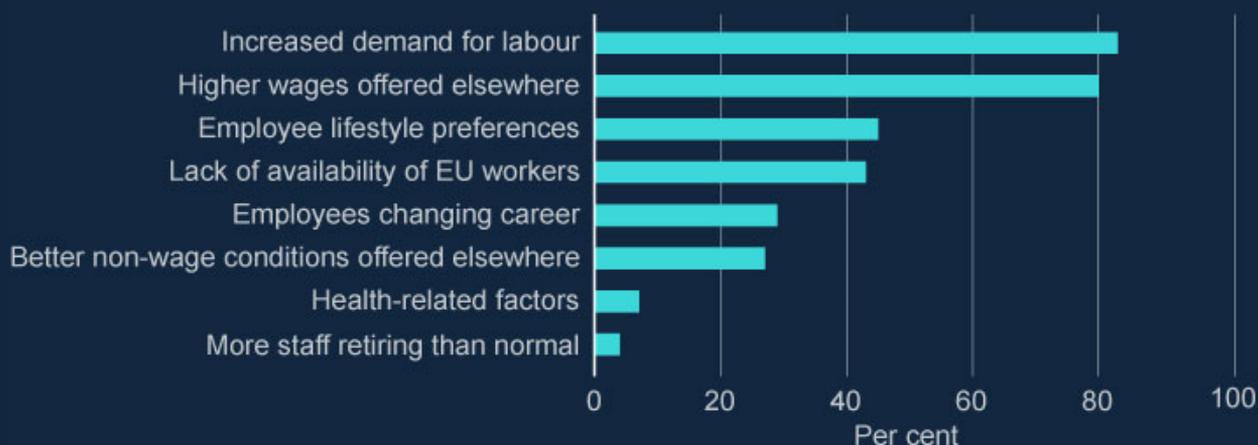
**On top of these, labour supply growth has also been reduced in recent years by lower net migration from the EU...**

Another long-running trend weighing on labour supply has been slowing population growth. Population growth has accounted for the majority of labour supply growth since the financial crisis, and much of this has been driven by migration. But UK population growth has been falling since 2016, as migration has slowed. Lower net migration from the EU has only partially been offset by higher migration from outside the EU.

Migration figures have become more uncertain since the start of the pandemic (see Section 3 of the [November 2021 Report](#)), but the LFS data have recently incorporated information from HMRC's payroll database, providing an updated steer on the level of the population aged 16 and above in the UK. Growth in the EU-born population appears to have stalled since 2017. Although that has been partly offset by a pickup in growth from those born outside of the UK and EU, growth in the non-UK born population overall has slowed. This has been weighing on available labour supply.

### Chart 3.7: A lack of EU workers is one factor behind recruitment difficulties, although increased demand for labour and higher wages offered elsewhere appear most important

Sources of recruitment and retention difficulties for firms (a)



Sources: Bank of England and Bank calculations.

(a) Taken from responses to the Agents' survey on employment and pay. Responses were collected between 23 May and 6 July 2022. Question: 'If you have experienced recruitment difficulties over the past 12 months, what are the sources of these?'

### ...which may be contributing to labour market tightness if it has altered the composition of the labour force.

Slowing population growth is expected to weigh on labour supply but this, on its own, would not normally add to labour market tightness. This is because changes in the population typically affect both the supply and demand for labour. Changes in the composition of the population can however contribute to labour market tightness if they have altered the composition of the labour force, for example the mix of skills. Over 40% of firms pointed to a lack of availability of EU workers as a source of recruitment and retention difficulties in the Agents' recent pay and employment survey (Chart 3.7).

## Labour demand

### Labour demand appears to have recovered more quickly than labour supply.

While constraints on labour supply have been important drivers of labour market tightness, the recovery in demand for labour is also playing a role (Chart 3.5). Increased demand for labour was the most commonly cited source of recruitment and retention difficulties in the Bank's Agents' survey on employment and pay (Chart 3.7). Vacancies

have been much higher than previous records for several quarters (Chart 3.8). The exact level of vacancies may be difficult to compare across long periods of time because the ability to advertise online has reduced the cost to firms of posting a vacancy. This is unlikely to materially distort comparisons to the period immediately before the pandemic however, and other data such as employment intentions have also pointed to a rapid recovery in labour demand.

Alongside the sharp rise in vacancies, the flow of new hires recovered from around 20% below pre-Covid levels in 2020 Q3 to 20% above a year later (Chart 3.8). But the pace of hiring has slowed since 2021 Q3, even as vacancies have continued to rise. The KPMG/REC UK Report on Jobs can give a more timely steer on the path for vacancies and hiring. This has pointed to a slowing in permanent placements growth over the first half of 2022 to around previous averages. The index of total vacancies, however, has only softened slightly and continues to suggest sharp increases at rates much higher than previous averages. Some of the wedge between vacancies and hires may reflect the tightness in the labour market. Standard models of the labour market would predict that it becomes harder for each vacancy to be filled when many of them are open at the same time ([Pissarides \(2000\)](#)). For example, much of the slowdown in hiring is explained by reduced flows from unemployment to employment, which may reflect the fact that the pool of unemployed people has shrunk.



Sources: ONS and Bank calculations.

(a) Data are quarterly. Latest data points are 2022 Q1 for hires and 2022 Q2 for vacancies. Hires are inflows into employment (for people aged 16–64) plus job-to-job flows (for people aged 16–69).

**| The composition of labour demand may be contributing to tightness...**

Mismatch between those searching for work and the available vacancies may also be contributing to recruitment difficulties. The uneven impact of the pandemic, with job losses and reduced hiring being concentrated in contact-intensive sectors such as hospitality, led to a sharp increase in sectoral mismatch in the early stages of the pandemic. However, as hiring picked up in the worst-affected sectors, models that estimate sectoral mismatch suggest it fell back and is no longer elevated. Similar models for regional mismatch suggest it has been relatively stable throughout the pandemic. Recruitment difficulties could signal frictions on different, or more granular, dimensions of the labour market, however. They may also reflect a shortage of workers with particular skills. This is supported by reports to the Bank's Agents of skills shortages, some of which are viewed as structural and not expected to ease materially over the next 12 months. In addition, some workers with certain skills, particularly those from the EU, who had left the UK during the pandemic are not expected to return.

**| ...and if firms hoard labour that could also add to labour market tightness...**

The experience of recruitment difficulties can sometimes lead firms to hoard labour, even in the event demand for their output falls (see, for example, [Fair \(1985\)](#) and [Horning \(1994\)](#)). So even if demand softens, and some firms then have more staff than they need, they might be reluctant to make any redundancies to avoid being unable to fill vacancies later once demand recovers. Indeed, in the Bank's Agents' recent survey on employment and pay, a net balance of more than half of firms reported that a desire to retain staff to avoid needing to rehire in future had contributed to employment levels both over the past year and expectations for the coming year. This could add to the persistence of labour market tightness in a softening demand environment. But the high level of capacity use in firms suggests that, so far, labour hoarding has not been large in aggregate.

**| ...but the overall balance of labour demand relative to labour supply is likely to be a more important factor at the moment.**

Adding the number of people employed to vacancies – the number of additional people firms would like to employ – is a measure of labour demand. On this measure, labour demand now exceeds its pre-Covid levels (Chart 3.5), even though it remains below the level implied by pre-Covid trends. Labour supply on the other hand remains a little below pre-Covid levels. If labour market tightness primarily reflects strength in labour demand, that could mean that tightness is less persistent if demand were to fall. But the changes during the pandemic appear to have left labour supply roughly equal to labour demand,

when it is usually higher. This might suggest that the fall in labour supply is currently the limiting factor in the labour market, constraining hiring. If this is the case, demand may be able to fall for some time before the labour market loosens materially.

### 3.3: The outlook for the labour market

#### **| Trend labour supply is judged to be a little weaker than previously anticipated.**

In the MPC's baseline projections labour supply growth is assumed to slow. As in previous forecasts, this is driven by a slowdown in population growth and the ageing population. Trend labour supply is judged to be lower than previously expected. This is due to a revision of the trend in participation among women aged 60–64, as part of the MPC's regular assessment of trends in labour supply. The previous projected trend in participation for this group was judged to carry too much momentum from the period when participation growth was being boosted by the increase in the state pension age (Section 3.2). In addition, some of the fall in participation seen during the pandemic is assumed to persist during the forecast period, but unwind by the end. For example, inactivity due to long-term sickness returns gradually towards previous trends, and those that have retired early reach official retirement age, when they would have left the labour market anyway.

#### **| The labour market is expected to remain tight in the near term...**

The unemployment rate is expected to remain broadly stable around its current level for the rest of this year, given the levels of tightness in the labour market and firms' robust hiring plans. There are no signs of slowing employment growth in firms' responses to the Bank's Agents' survey on employment and pay (Chart 3.9). Firms expect to increase headcount by a little more than last year and would ideally expand even more. The gap between desired and expected headcount may reflect the scale of recruitment difficulties that firms expect to encounter. Given strong employment intentions and the current difficulties in recruitment, firms are expected to initially respond to weak demand by keeping their existing resources, including staff, but use them less intensively, for example by reducing hours worked.

### Chart 3.9: Firms expect to expand headcount further in the coming year, but by less than they would ideally like

Reported, expected and desired changes in businesses' staff numbers (a)



Sources: Bank of England and Bank calculations.

(a) Taken from responses to the Agents' survey on employment and pay. Responses were collected between 23 May and 6 July 2022. Questions: 'How have staff numbers changed over the past 12 months?'; 'Given your expectations of changes in the labour market, how are staff numbers expected to change in the next 12 months?'; and 'How would you like staff numbers to change in the next 12 months?'.

Underlying nominal wage growth is projected to pick up further in the coming quarters. In part, this reflects the tightness of the labour market but also rising pressure from CPI inflation (Section 2.3). This, in turn, is expected to push up inflation via domestic price pressures.

#### **...but loosen over time, with the unemployment rate rising from next year.**

Consumption growth is expected to slow materially over the coming year, as a result of the squeeze in real incomes (Section 1). Over time, as demand continues to slow, firms are expected to reduce their workforce, which will ease the tightness in the labour market and increase unemployment. The unemployment rate is expected to rise above 4% in 2023 Q3 as these forces start to take effect (Chart 3.1). It is projected to reach 6¼% by the end of the forecast period, higher than the peak during Covid, but lower than levels seen following the financial crisis.

**The labour market may remain tighter for longer if labour supply has been an important constraint on recent hiring or if the effects of Covid on participation are more persistent...**

If the current labour market tightness reflects much more labour being demanded now than is available, such that capacity utilisation is at its limit, there may be room for labour demand to fall for longer before leading to spare labour capacity or rising unemployment. Labour hoarding as demand softens would also prolong the tightness in the labour market (Section 3.2). Alternatively, more of the fall in participation rates during the pandemic could prove to be persistent. For example the share of people with long-term health conditions and the likelihood they participate in the labour market may not return to previous trends or people may continue to retire earlier than expected. This would further dampen labour supply growth and push down on unemployment. However, changes to labour supply would be expected to be reflected in labour demand over time, reducing the impact on labour market tightness.

**...but the labour market may loosen more rapidly, in response to slowing demand or if participation recovers more quickly.**

On the other hand, labour market tightness could unwind more quickly. The labour market may respond more rapidly to slowing demand. Recruiters mentioned that greater economic uncertainty and rising costs were already slowing hiring according to the June KPMG/REC UK Report on Jobs. The Covid-related factors weighing on participation could also unwind faster than assumed in the baseline projections if, for example, the very recent decline in inactivity continues at the same pace over the coming months. Labour supply growth could also be affected by how households respond to the real income squeeze. Households may seek to boost income through working more, which could involve those currently inactive re-entering the labour market or those already in the labour force seeking to work longer hours. Although, if unemployment starts rising, households may become discouraged from entering the workforce as fewer jobs are available.

---

## Annex: Other forecasters' expectations

---

This annex reports the results of the Bank's most recent survey of external forecasters. Responses were submitted in the two weeks to 22 July. Expectations throughout the forecast period are summarised in Chart A.<sup>[2]</sup>

On average, respondents expected GDP growth of 0.5% in the four quarters to 2023 Q3 (left panel, Chart A). Responses ranged from -1% to 1.8%. Four-quarter GDP growth was then, on average, expected to rise to 1.7% in 2024 Q3 and 2025 Q3. These forecasts are all higher than the MPC's modal projections.

External forecasters expected an unemployment rate of 4.2% in 2023 Q3, just below the MPC's projection (middle panel, Chart A). The average external forecast remains at similar levels two and three years ahead. By comparison, in the MPC's projection the unemployment rate rises to 6.3% by 2025 Q3, which is above the range of external forecasters.

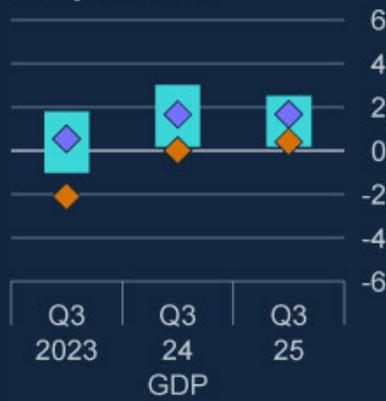
On average, CPI inflation was expected to fall to 5.4% in 2023 Q3, a faster decline than in the MPC's projection (right panel, Chart A). Responses at that horizon ranged from 3.6% to 9.3%. The average forecast for 2024 Q3 was 2.4% and for 2025 Q3 it was 2%, in line with the target. In comparison, the MPC's projection is 2% in 2024 Q3, and is below target at the end of the forecast period.

**Chart A: At the three-year horizon, external forecasters expect four-quarter GDP growth to be 1.7%, the unemployment rate to be 4.2%, and CPI inflation to be 2%**

Projections for GDP, the unemployment rate and CPI inflation

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

Percentage changes on a year earlier



Per cent



Per cent



---

## Glossary and other information

---

### Glossary of selected data and instruments

AWE – average weekly earnings.

CPI – consumer prices index.

CPI inflation – inflation measured by the consumer prices index.

CPIH – consumer prices index including owner-occupiers' housing costs.

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.

RPI – retail prices index.

RPI inflation – inflation measured by the retail prices index.

### Abbreviations

CBI – Confederation of British Industry.

CIPS – Chartered Institute of Purchasing and Supply.

CFO – chief financial officer.

ECB – European Central Bank.

EU – European Union.

FOMC – Federal Open Market Committee.

FTSE – Financial Times Stock Exchange.

GfK – Gesellschaft für Konsumforschung, Great Britain Ltd.

HMRC – Her Majesty's Revenue and Customs.

IFS – Institute of Fiscal Studies.

IMF – International Monetary Fund.

LTV – loan to value.

MPC – Monetary Policy Committee.

MSCI – Morgan Stanley Capital International Inc.

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.

PPP – purchasing power parity.

REC – Recruitment and Employment Confederation.

S&P – Standard & Poor's.

SMEs – small and medium-sized enterprises.

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.

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.

---

1. See [Button et al \(2010\)](#) 'Understanding the price of new lending to households', Bank of England Quarterly Bulletin, 2010 Q3.
2. For detailed distributions, see '[Monetary Policy Report chart slides and data – August 2022](#)'. External expectations for monetary policy are now covered in the [Market Participants Survey](#).