Bank of England

Monetary Policy Report

Monetary Policy Committee

November 2023

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

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- Ben Broadbent
- Swati Dhingra
- Megan Greene
- Jonathan Haskel
- Catherine L Mann
- Huw Pill
- Dave Ramsden

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

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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 1 November 2023, the MPC voted by a majority of 6–3 to maintain Bank Rate at 5.25%. Three members preferred to increase Bank Rate by 0.25 percentage points, to 5.5%.

The Committee's updated projections for activity and inflation are set out in the accompanying November Monetary Policy Report. These are conditioned on a market-implied path for Bank Rate that remains around 5¼% until 2024 Q3 and then declines gradually to 4¼% by the end of 2026, a lower profile than underpinned the August projections.

Since the MPC's previous meeting, long-term government bond yields have increased across advanced economies. GDP growth has been stronger than expected in the United States. Underlying inflationary pressures in advanced economies remain elevated. Following events in the Middle East, the oil futures curve has risen somewhat while gas futures prices are little changed.

UK GDP is expected to have been flat in 2023 Q3, weaker than projected in the August Report. Some business surveys are pointing to a slight contraction of output in Q4 but others are less pessimistic. GDP is expected to grow by 0.1% in Q4, also weaker than projected previously.

The MPC continues to consider a wide range of data to inform its view on developments in labour market activity, rather than focusing on a single indicator. The increasing uncertainties surrounding the Labour Force Survey underline the importance of this approach. Against a backdrop of subdued economic activity, employment growth is likely to have softened over the second half of 2023, and to a greater extent than projected in the August Report. Falling vacancies and surveys indicating an easing of recruitment difficulties also point to a loosening in the labour market. Contacts of the Bank's Agents have similarly reported an easing in hiring constraints, although persistent skills shortages remain in some sectors.

Pay growth has remained high across a range of indicators, although the recent rise in the annual rate of growth of private sector regular average weekly earnings has not been apparent in other series. There remains uncertainty about the near-term path of pay, but wage growth is nonetheless projected to decline in coming quarters from these elevated levels.

Twelve-month CPI inflation fell to 6.7% both in September and 2023 Q3, below expectations in the August Report. This downside news largely reflects lower-than-expected core goods price inflation. At close to 7%, services inflation has been only slightly weaker than expected in August. CPI inflation remains well above the 2% target, but is expected to continue to fall sharply, to 4¾% in 2023 Q4, 4½% in 2024 Q1 and 3¾% in 2024 Q2. This decline is expected to be accounted for by lower energy, core goods and food price inflation and, beyond January, by some fall in services inflation.

In the MPC's latest most likely, or modal, projection conditioned on the market-implied path for Bank Rate, CPI inflation returns to the 2% target by the end of 2025. It then falls below the target thereafter, as an increasing degree of economic slack reduces domestic inflationary pressures.

The Committee continues to judge that the risks to its modal inflation projection are skewed to the upside. Second-round effects in domestic prices and wages are expected to take longer to unwind than they did to emerge. There are also upside risks to inflation from energy prices given events in the Middle East. Taking account of this skew, the mean projection for CPI inflation is 2.2% and 1.9% at the two and three-year horizons respectively. Conditioned on the alternative assumption of constant interest rates at 5.25%, which is a higher profile than the market curve beyond the second half of 2024, mean CPI inflation returns to target in two years' time and falls to 1.6% at the three-year horizon.

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. Monetary policy will ensure that CPI inflation returns to the 2% target sustainably in the medium term.

Since the MPC's previous decision, there has been little news in key indicators of UK inflation persistence. There have continued to be signs of some impact of tighter monetary policy on the labour market and on momentum in the real economy more generally. Given the significant increase in Bank Rate since the start of this tightening cycle, the current monetary policy stance is restrictive. At this meeting, the Committee voted to maintain Bank Rate at 5.25%.

The MPC will continue to monitor closely indications of persistent inflationary pressures and resilience in the economy as a whole, including a range of measures of the underlying tightness of labour market conditions, wage growth and services price inflation. Monetary policy will need to be sufficiently restrictive for sufficiently long to return inflation to the 2% target sustainably in the medium term, in line with the Committee’s remit. The MPC’s latest projections indicate that monetary policy is likely to need to be restrictive for an extended period of time. Further tightening in monetary policy would be required if there were evidence of more persistent inflationary pressures.

1: The economic outlook

Twelve-month CPI inflation remains well above the MPC's 2% target, but has fallen back to 6.7% both in September and in 2023 Q3 as a whole, below expectations in the August Monetary Policy Report. Most of the downside news since the previous Report reflects lower core goods price inflation. Services inflation has been only slightly weaker than expected in August and remains elevated. CPI inflation is expected to continue to fall quite sharply in the near term, to an average of around 4¾% in 2023 Q4, 4½% in 2024 Q1 and 3¾% in 2024 Q2. Most indicators of pay growth have tended to be stable at rates of growth that are high. But they have not shown the recent rise in the annual rate of growth of the private sector regular AWE series. Earnings growth is expected to be somewhat stronger than in the August Report, but is still projected to decline in coming quarters from these elevated levels.

Second-round effects in domestic prices and wages are expected to take longer to unwind than they did to emerge (Key judgement 3). In the most likely, or modal, forecast conditioned on the market-implied path of interest rates, an increasing degree of slack in the economy and declining external cost pressures lead CPI inflation to return to the 2% target by the end of 2025 and to fall below target thereafter. Compared with the August Report modal projection, inflation is expected to return to close to the 2% target slightly less rapidly in the middle of the forecast period, reflecting higher energy and other import price inflation.

The Committee continues to judge that the risks to its modal projection are skewed to the upside. Taking account of this skew, and conditioned on market interest rates, mean CPI inflation is 2.2% and 1.9% at the two and three-year horizons respectively. In the mean projection conditioned on the alternative assumption of constant interest rates at 5.25% over the forecast period, CPI inflation is expected to be 2.0% and 1.6% in two years' and three years' time respectively.

Given the significant increase in Bank Rate since the start of this tightening cycle, the current monetary policy stance is restrictive. GDP is expected to be broadly flat in the first half of the forecast period and growth is projected to remain well below historical averages in the medium term, also reflecting a waning boost from fiscal policy and subdued potential supply growth (Key judgement 1). GDP is lower compared with August, reflecting recent weaker-than-expected activity data and the Committee's related decision in this forecast to reduce somewhat the scale of, but not to remove completely, its previous judgement boosting expected demand.

The margin of excess demand in the UK economy has diminished over recent quarters and an increasing degree of economic slack is expected to emerge from the start of next year (Key judgement 2). Unemployment is expected to rise further over the forecast period and exceed the Committee's upwardly revised estimate of the medium-term equilibrium rate from the end of next year. There are increased uncertainties around the ONS's official labour market activity data that have previously been based on the Labour Force Survey, and the Committee is therefore continuing to consider the collective steer from a range of indicators.

Table 1.A: Forecast summary (a) (b)

	2023 Q4	2024 Q4	2025 Q4	2026 Q4
GDP (c)	0.6 (0.9)	0 (0.1)	0.4 (0.5)	1.1
Modal CPI inflation (d)	4.6 (4.9)	3.1 (2.5)	1.9 (1.6)	1.5
Mean CPI inflation (d)	4.6 (4.9)	3.4 (2.8)	2.2 (1.9)	1.9
Unemployment rate (e)	4.3 (4.1)	4.7 (4.5)	5 (4.8)	5.1
Excess supply/**Excess demand** (f)	0 (¼)	-¾ (-¾)	-1½ (-1½)	-1½
Bank Rate (g)	5.3 (5.8)	5.1 (5.9)	4.5 (5)	4.2

(a) Figures in parentheses show the corresponding projections in the August 2023 Monetary Policy Report.
(b) Unless otherwise stated, the numbers shown in this table are modal projections and are conditioned on the assumptions described in Section 1.1. The main assumptions are set out in **Monetary Policy Report – Download chart slides and data – November 2023**.
(c) Four-quarter growth in real GDP.
(d) Four-quarter inflation rate. The modal projection is the single most likely outcome. If the risks are symmetrically distributed around this central view, this will also provide a view of the average outcome or mean forecast. But when the risks are skewed, as in the current forecast, the mean projection will differ from the mode.
(e) ILO definition of unemployment. Up to June 2023, this projection is based on LFS unemployment data. Beyond this point, the Committee is drawing on the collective steer from other indicators of unemployment to inform its projection (see Box B).
(f) Per cent of potential GDP. A negative figure implies output is below potential and a positive that it is above.
(g) Per cent. The path for Bank Rate implied by forward market interest rates. The curves are based on overnight index swap rates.

1.1: The conditioning assumptions underlying the MPC's projections

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

- The paths for policy rates in advanced economies implied by financial markets, as captured in the 15-working day average of forward interest rates to 24 October (Chart 2.5). The market-implied path for Bank Rate in the United Kingdom has fallen by just over ½ percentage point on average over the next three years compared with the equivalent period at the time of the August Report. The path for Bank Rate underpinning the November projections remains around 5¼% until 2024 Q3 and then declines gradually to 4¼% by the end of 2026. There has been a significant increase in longer-term government bond yields globally since August (Section 2.1).
- A path for the sterling effective exchange rate index that is around 1½% lower on average than in the August Report, and is depreciating gradually over the forecast period given the role for expected interest rate differentials in the Committee's conditioning assumption.
- Wholesale energy prices that follow their respective futures curves over the forecast period. Since August, spot oil prices and the oil futures curve have risen, while gas futures prices are little changed. Significant uncertainty remains around the outlook for wholesale energy prices, including related to recent geopolitical developments (Key judgement 3).
- UK household energy prices that move in line with Bank staff estimates of the Ofgem price cap implied by the path of wholesale energy prices (Section 2.3).
- Fiscal policy that evolves in line with announced UK government policies to date, and so does not include the contents of the Autumn Statement on 22 November.

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

	Average 1998–2007	Average 2010–19	2022	2023	2024	2025	2026
Bank Rate (c)	5.0	0.5	2.8	5.3 (5.8)	5.1 (5.9)	4.5 (5)	4.2
Sterling effective exchange rate (d)	100	82	78	81 (82)	80 (81)	80 (81)	79
Oil prices (e)	39	77	89	90 (79)	81 (75)	77 (72)	74
Gas prices (f)	29	52	201	118 (113)	142 (139)	117 (114)	99
Nominal government expenditure (g)	7¼	2¼	4	6¼ (4)	¾ (3)	1¾ (1½)	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 August 2023 Monetary Policy Report.
(b) Financial market data are based on averages in the 15 working days to 24 October 2023. Figures show the average level in Q4 of each year, unless otherwise stated.
(c) Per cent. The path for Bank Rate implied by forward market interest rates. The curves are based on overnight index swap rates.
(d) Index. January 2005 = 100. The convention is that the sterling exchange rate follows a path that is half way between the starting level of the sterling ERI and a path implied by interest rate differentials.
(e) Dollars per barrel. Projection based on monthly Brent futures prices.
(f) Pence per therm. Projection based on monthly natural gas futures prices.
(g) Annual average growth rate. Nominal general government consumption and investment. Projections are based on the OBR's March 2023 Economic and Fiscal Outlook. Historical data based on NMRP+D7QK.

1.2: Key judgements and risks

1.2: Key judgement 1

GDP is expected to be broadly flat in the first half of the forecast period and growth is projected to remain well below historical averages in the medium term. That reflects the significant increase in Bank Rate since the start of this tightening cycle, subdued potential supply growth, and a waning boost from fiscal policy.

UK GDP is expected to have been flat in 2023 Q3, weaker than expected in the August Monetary Policy Report (Section 2.2). Indicators of growth in Q4 are mixed. Some business surveys are pointing to a slight contraction in GDP, but others are less pessimistic. Many contacts of the Bank's Agents have continued to report weak activity growth and a subdued outlook. On balance, Bank staff expect GDP to grow by 0.1% in the fourth quarter, also weaker than projected in August.

Household consumption growth is now expected to be similarly weak during the second half of this year, consistent with recent declines in retail sales volumes, consumer services output and consumer confidence. Nonetheless, real labour income growth has been slightly stronger than expected and workers do not appear to have become more pessimistic about the security of their own jobs.

For a number of forecast rounds, the Committee has made a judgement to boost the expected path of demand in light of the surprising resilience of economic activity. This reflected a number of factors, including the possibility of lower precautionary saving by households, in turn related to a lower risk of job loss given continued strength in labour market activity. Developments since August, including in the labour market (Key judgement 2), suggest that economic activity has been somewhat less resilient over recent months. As a result, in its latest growth projection, the Committee has scaled back somewhat the extent of this judgement to boost demand, but has not taken it out completely.

Given the significant increase in Bank Rate since the start of this tightening cycle, the current monetary policy stance is restrictive. There are increasing signs of some impact of tighter policy on momentum in the real economy (Section 3.3). Based on the average relationships over the past between Bank Rate, other financial instruments and economic activity, Bank staff estimate that more than half of the impact of higher interest rates on the level of GDP is still to come through, although there is significant uncertainty around that estimate. The Committee will continue to monitor closely the impact of the significant increase in Bank Rate. It will also continue to keep under review the relationship between Bank Rate and economic activity, including how it may have changed during the current tightening cycle.

Taken together, the pass-through of past rises in interest rates and the latest market-implied interest rate path on which the forecast is conditioned (Section 1.1) continue to push down on GDP over the forecast period. Nevertheless, the fall in the market path over recent months pushes up on GDP in this forecast compared with the August projection, all else equal.

As in recent projections, and taking account of all announced government plans, the positive impacts of past fiscal loosening measures related to the pandemic and the energy price shock (Section 3.1) on the level of GDP unwind, which pulls down on GDP growth throughout much of the forecast period. Real government consumption is, nevertheless, expected to grow quite strongly in 2024, bouncing back from the negative impact on spending associated with public sector strike activity in 2023.

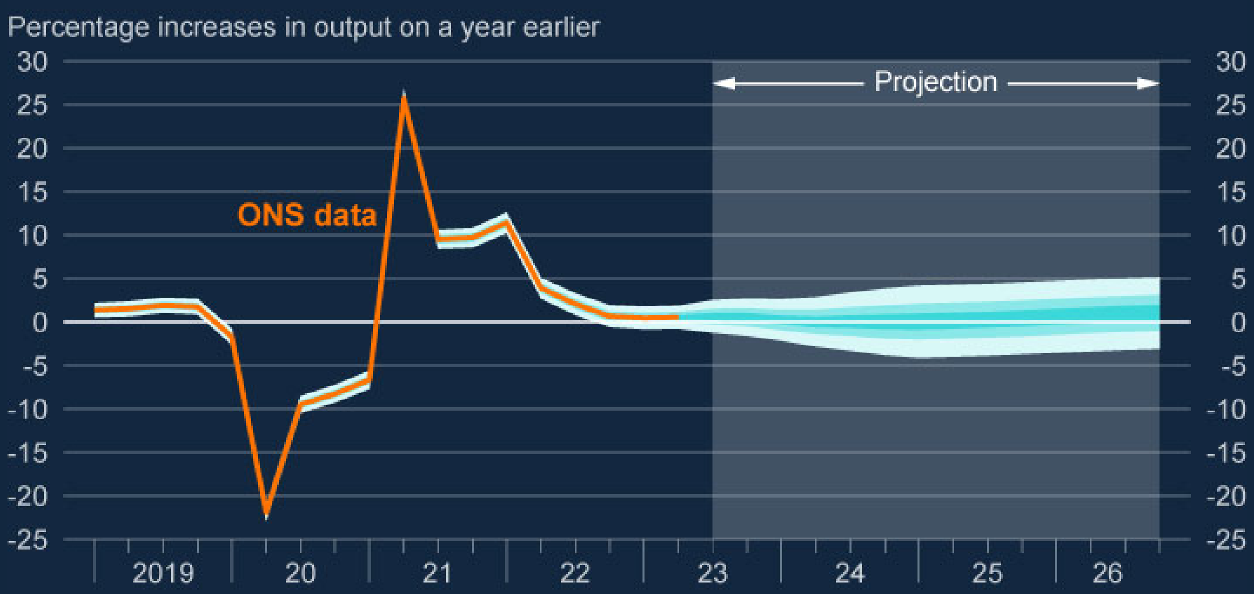
International growth has remained subdued (Section 2.1) and the path of global GDP is expected to be broadly similar to that in the August Report. In the MPC's November projection, annual UK-weighted world GDP growth is projected to rise from around 1½% in 2023 to around 2% in the medium term (Table 1.D). That compares with average annual growth of around 2½% in the decade prior to the pandemic.

Although aggregate global growth is evolving largely as expected, US GDP growth has been stronger than expected, while the euro area has seen weaker growth. As in the United Kingdom, the impact of past monetary policy tightening is dragging on activity, with fiscal policy and the rundown of excess household saving underpinning the resilience of US demand. Growth in the euro area is expected to pick up over the forecast period, while growth in the United States and China is projected to fall back somewhat.

Overall in the Committee's November projection, UK GDP is projected to remain broadly flat in the first half of the forecast period. As well as the impact of higher interest rates, this reflects a waning boost from fiscal policy and relatively weak potential supply (Key judgement 1 in the February 2023 Report and Key judgement 2 in this Report). GDP growth recovers over the second half of the forecast period, although it remains well below historical averages in the medium term. Calendar-year GDP growth is expected to be marginally positive in 2024, and to increase by ¼% in 2025 and by ¾% in 2026 (Table 1.D). Four-quarter GDP growth picks up to slightly over 1% by 2026 Q4 (Chart 1.1).

Relative to the August Report projection, four-quarter GDP growth is expected to be slightly weaker throughout the forecast period. Abstracting from the increase in the historical level of GDP related to the Blue Book 2023 revisions (Box C), the level of GDP has been revised down by around 1% by the end of the forecast period compared with the August Report. That lower level of activity reflects recent weaker-than-expected GDP data and the Committee's related decision in this forecast to reduce somewhat its previous judgement boosting expected demand. Those factors have been offset partially by the projected boost to GDP from the lower path of market interest rates on which the forecast is conditioned and, to a lesser degree, the estimated impact on growth of the recent exchange rate depreciation (Section 1.1).

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



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

In the GDP projection conditioned on the alternative assumption of constant interest rates at 5.25% over the forecast period, growth is lower in the forecast period compared with the MPC's projection conditioned on market rates, as the constant rate assumption is above the market curve to an increasing degree beyond the end of next year.

Within the expenditure components underpinning the November GDP projection conditioned on market interest rates, calendar-year household spending is expected to grow by ½% this year, to be flat in 2024, and to rise by ½% in 2025 and by 1% in 2026 (Table 1.D). This projected path of consumption is weaker than in the August Report. Real post-tax labour income is projected to grow by ¾% this year and by 1% in 2024, but more modestly in 2025 and 2026. Taking account of all components of household income, the saving ratio is expected to be broadly unchanged over much of the forecast period, flatter than the downward-sloping path projected in the August Report. That reflects a higher degree of precautionary saving than expected previously, in part owing to the higher profile for unemployment (Key judgement 2), and is broadly consistent with the Committee's decision in this forecast to reduce somewhat the scale of its judgement boosting expected spending.

In large part reflecting the transmission of higher interest rates (Section 3.3), housing investment is expected to fall significantly, by 5¾% in 2023, by 6¾% 2024 and by 2¾% in 2025. This profile is similar to that in the August Report, and is consistent with weakness in housing transactions and forward-looking indicators of new housing construction.

Business investment is projected to increase by just under 7% this year, but to fall by 1% in 2024, in part reflecting transport sector related volatility in capital expenditure. As set out in Box D, respondents to a special survey by the Bank's Agents expect investment growth to slow slightly next year but remain positive. Investment intentions are being held back by economic uncertainty, and by the cost and availability of finance, but supported by the need to invest for a number of reasons such as digitalisation, efficiency, sustainability and maintenance. Further out in the latest projection, business investment is expected to be broadly flat in 2025, before increasing by 2% in 2026.

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

There are risks in both directions around the central projections for household spending and GDP, including related to the Committee's decision in this forecast to scale back somewhat the extent of its judgement to boost expected demand. Spending could be stronger than expected if there is greater resilience in labour market activity (Key judgement 2) and some households choose to save less or run down existing stocks of savings to a greater extent. Conversely, demand could be weaker than expected if some people become more worried about their job security and try to build up their savings to a greater extent. The latest Bank/NMG survey suggests that, among those who are planning to change their saving habits compared with the previous six months, the share of households who are planning to save more than usual over the next six months is expected to rise to around half (Chart 3.5).

There are also risks related to the transmission of monetary policy, including the response of consumption to higher interest rates. Although there is a much greater proportion of fixed-rate mortgages than in previous tightening cycles, some mortgagors who anticipate needing to refinance in the future may take greater advance actions to prepare for facing higher interest costs. There could also be non-linearities in the response of consumption to weakness in the housing market via collateral and other channels (Section 3.3). These could, in turn, relate to developments in unemployment and mortgage distress.

Internationally, the risk of higher commodity prices, including related to geopolitical developments, could lead to weaker UK economic activity as well as upward pressure on CPI inflation (Key judgement 3).

1.2: Key judgement 2

The margin of excess demand in the UK economy has diminished over recent quarters and an increasing degree of economic slack is expected to emerge from the start of next year. Unemployment is expected to rise further over the forecast period and exceed the Committee's upwardly revised estimate of the medium-term equilibrium rate from the end of next year.

As set out in Box C, the upward revisions to GDP in Blue Book 2023 provide limited news about the balance of demand and supply in the market sector economy, and hence domestic inflationary pressures (Key judgement 3). In light of that, the MPC has judged it appropriate to revise up potential supply in line with the revisions to measured GDP, such that the output gap over the past is unchanged.

The Committee continues to judge that there has been a significant margin of excess demand in the economy over the past two years, averaging just under 1% of potential GDP, and in part reflecting the weakness of potential supply. That excess demand has been accounted for by the tightness of the labour market and, prior to 2023, a higher than normal degree of capacity utilisation within companies.

Since around the middle of last year, however, the margin of aggregate excess demand is judged to have been diminishing, such that only a little remains currently. This is consistent with the recent loss of momentum in activity (Key judgement 1) and with other top-down cross-checks of the degree of slack in the economy. Compared with the August Report, the decline in excess demand is judged to be occurring a little faster during the second half of this year than expected previously.

The MPC is continuing to consider the collective steer from a wide range of data to inform its view on labour market developments. As discussed in Box B, there are increased uncertainties around the ONS's official labour market activity data that have previously been based on the Labour Force Survey (LFS). A decline in response rates has resulted in the ONS temporarily ceasing to publish LFS estimates of employment, unemployment and inactivity from the June data. The ONS has, however, published experimental estimates of employment and unemployment that need to be interpreted with caution.

As discussed in Box B, the Committee is therefore continuing to consider the collective steer from other indicators of labour market activity. Generally speaking, the Committee has a wider set of indicators to draw on for its understanding of developments in employment than it does for developments in the split of non-employment between unemployment and inactivity.

Taken together, a range of indicators suggest that employment growth is likely to have softened over the second half of this year to a greater extent than expected in the August Report, but not turned negative (Section 2.2). Developments in indicators of recruitment difficulties point to a loosening in the labour market. Contacts of the Bank's Agents have also reported an easing in hiring constraints, although persistent skills shortages remain in some sectors.

Recent LFS data issues notwithstanding, the unemployment rate is expected to be around 4¼% during the second half of 2023, slightly higher than expected in the August Report. On this basis, the vacancies to unemployment ratio, an alternative measure of labour market tightness, has continued to decline.

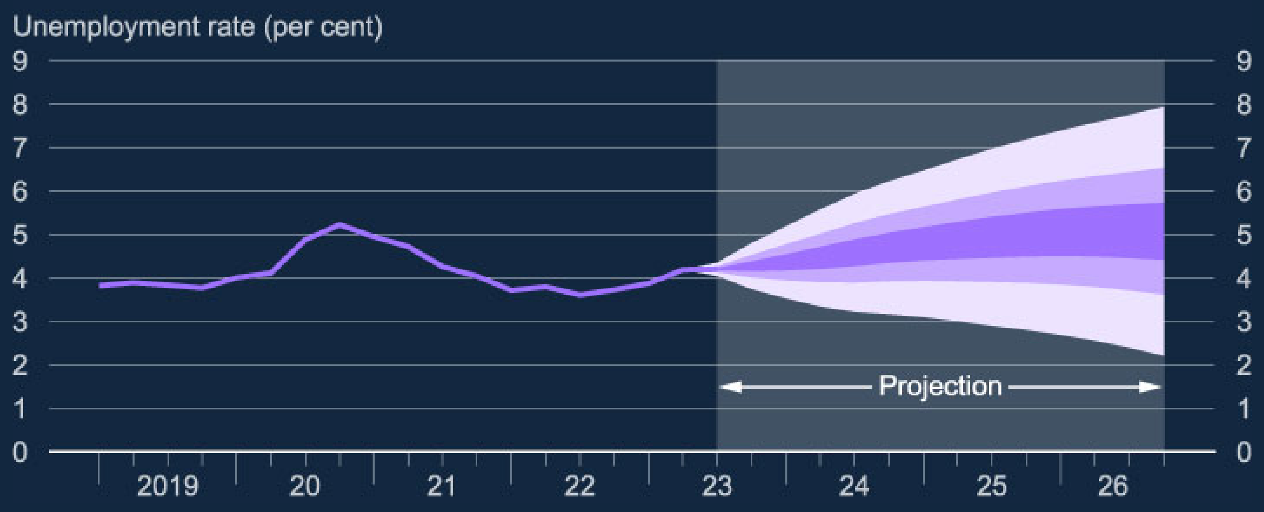
As discussed in the August Report, there is significant uncertainty about the rate of unemployment consistent with meeting the 2% inflation target in the medium term. Higher-than-expected wage growth after the recent terms of trade shock to the economy suggests that the medium-term equilibrium rate is likely to be temporarily higher, as employees and domestic firms have sought compensation in the form of higher nominal pay and domestic selling prices for the reductions in real incomes that they have experienced. There is also some evidence that the efficiency with which vacancies are matched to those seeking work has decreased over recent years, which would be pushing up more structurally on the equilibrium rate of unemployment. In its November forecast, the Committee has made an additional judgement to increase its estimate of the medium-term equilibrium rate of unemployment from the period since the energy shock started and, to a lesser degree, over the forecast period. This equilibrium rate is judged to be around 4½% currently. This change in judgement is consistent with a somewhat stronger outlook for wage growth and domestic inflationary pressures all else equal (Key judgement 3).

The increase in the equilibrium rate of unemployment also pushes down aggregate supply growth. Four-quarter supply growth is expected to slow from around 1½% currently to around ¾% next year, before rising to around 1¼% in the medium term, the latter of which is similar to in previous Reports. The Committee will undertake a full review of the determinants of the overall longer-term supply capacity of the economy in its next regular stocktake ahead of the February 2024 Report.

Although aggregate supply is expected to be relatively subdued, particularly in the near term, the outlook for demand is weaker, leading to an increasing degree of economic slack emerging in the Committee's latest projections from the start of next year. The margin of aggregate excess supply is expected to widen to just over 1½% of potential GDP by the end of the forecast period (Table 1.A), broadly similar to its path in the August Report. Relative to August, the projection for excess demand/supply has been pushed up by the lower market path of interest rates and by the Committee's judgement to raise the equilibrium rate of unemployment, which has reduced potential supply. But the projection has been pushed down by the Committee's decision to scale back slightly the extent of its judgement boosting expected demand.

In part reflecting indications of relatively optimistic longer-term expectations for output, companies are expected to continue to respond to the weakness in demand by retaining their existing inputs, while using them less intensively and hoarding labour for a prolonged period. This limits to some extent the rise in unemployment that would otherwise be expected to occur. Nevertheless, in the MPC's November projection, the unemployment rate is projected to continue to rise gradually over the forecast period such that it exceeds the Committee's updated estimate of the medium-term equilibrium rate from the end of next year, and it reaches just over 5% by the end of 2026 (Chart 1.2). This is slightly higher than in the August Report, but is consistent with a similar degree of labour market looseness, reflecting the Committee's judgement to raise further the equilibrium rate in this forecast.

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



The fan chart depicts the probability of various outcomes for the ILO definition of unemployment. It has been conditioned on Bank Rate following a path implied by market yields, but allows the Committee's judgement on the risks around the other conditioning assumptions set out in Section 1.1, including wholesale energy prices, to affect the calibration of the fan chart skew. The coloured bands have the same interpretation as in Chart 1.1, and portray 90% of the probability distribution. Up to June 2023, this fan chart is based on LFS unemployment data. Beyond this point, the Committee is drawing on the collective steer from other indicators of unemployment to inform its projection (see Box B). The fan begins in 2023 Q3, a quarter earlier than for CPI inflation. A significant proportion of this distribution lies below Bank staff's current estimate of the long-term equilibrium unemployment rate. There is therefore uncertainty about the precise calibration of this fan chart.

In projections conditioned on the alternative assumption of constant interest rates at 5.25% over the forecast period, the unemployment rate rises to a greater extent across the forecast period compared with the MPC's projection conditioned on market rates, as the constant rate assumption is above the market curve to an increasing degree beyond the end of next year.

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

Reflecting the considerable uncertainties around interpreting estimates from the Labour Force Survey, there are risks in both directions around the recent path of the unemployment rate, and hence the outlook for unemployment and labour market tightness. The labour market could remain tighter than assumed for a number of economic reasons, including the upside risks around the outlook for demand (Key judgement 1). Conversely, the labour market could loosen more rapidly than assumed, again including because of any downside risks to demand.

There also remains significant uncertainty around the Committee's updated assumption for the path of the equilibrium rate of unemployment, news in which would, holding demand fixed, have implications for labour market tightness and inflationary pressures. In particular, it is difficult to judge how quickly some of the factors pushing up the equilibrium rate recently could fade over the forecast period, and the extent to which there are greater structural factors, such as interactions with the benefits system, at play.

1.2: Key judgement 3

Second-round effects in domestic prices and wages are expected to take longer to unwind than they did to emerge. In the modal forecast conditioned on the market-implied path of market interest rates, an increasing degree of slack in the economy and declining external cost pressures lead CPI inflation to return to the 2% target by the end of 2025 and to fall below target thereafter. The Committee continues to judge that the risks are skewed to the upside. Taking account of this skew, mean CPI inflation is 2.2% and 1.9% at the two and three-year horizons respectively.

Twelve-month CPI inflation remains well above the MPC's 2% target, but has fallen back to 6.7% in both September and in 2023 Q3 as a whole, below expectations in the August Report. Most of the downside news since the previous Report reflects lower core goods price inflation. Services inflation has been only slightly weaker than expected in August.

Twelve-month CPI inflation is expected to continue to fall quite sharply in the near term, to below 5% in October, as the reduction in the Ofgem household energy price cap more than offsets the impact on motor fuel costs of the recent rise in sterling oil prices (Section 2.3). CPI inflation is projected to decline to an average of 4.6% in 2023 Q4, slightly lower than expected in the August Report, and then to 4.4% in 2024 Q1 and 3.6% in 2024 Q2 (Table 1.C). This decline is expected to be accounted for by lower energy, core goods and food price inflation and, beyond January, by some fall in services price inflation.

Based on the latest paths of oil and gas futures prices, the direct energy contribution to inflation is slightly higher throughout the forecast period than in the Committee's previous forecast. In absolute terms, this direct energy contribution remains slightly negative over the second half of the forecast period.

Four-quarter UK-weighted world export price inflation, excluding the direct effect of oil prices, is estimated to have been slightly negative in 2023 Q2 and is expected to decline more sharply over the next year, though by slightly less than anticipated in the August Report. The weak absolute profile continues to reflect the clearing of global supply chain bottlenecks and easing producer price pressures, particularly in China. World export price inflation then turns slightly positive from the middle of 2025, broadly unchanged from the August Report. The recent depreciation of the sterling exchange rate (Section 1.1) will put upward pressure on UK import price inflation, and over time on CPI inflation, relative to the August Report. Overall, import prices are projected to fall by 1¾% in 2023, a lesser fall than expected in the August Report, and by 3% in 2024 (Table 1.D).

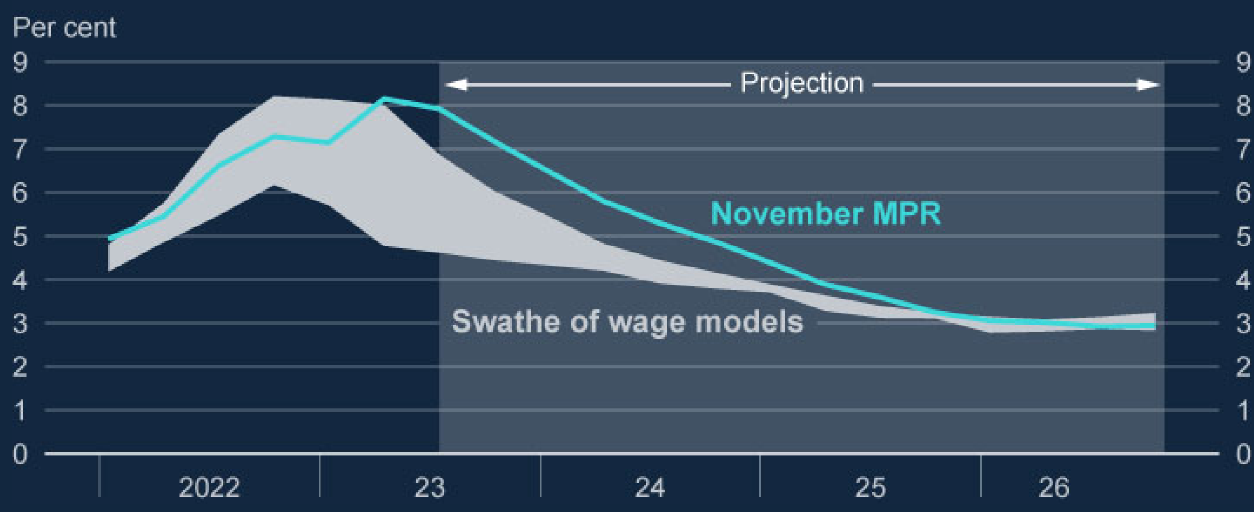
The MPC is continuing to monitor closely indications of persistent inflationary pressures and resilience in the economy as a whole (Key judgement 1), including a range of measures of the underlying tightness of labour market conditions (Key judgement 2), wage growth and services price inflation.

Services CPI inflation has remained elevated and somewhat stronger than can be explained by a simple empirical model based on developments in labour and non-labour input costs. There has, however, been some signs of a turning point in a measure of underlying inflationary pressures in consumer services prices (Chart 2.18).

Annual private sector regular average weekly earnings (AWE) growth has increased further to 8.0% in the three months to August, materially above expectations in the August Report. This most recent rise in growth is difficult to reconcile with other indicators of pay growth (Section 2.3). Most of these have tended to be more stable at rates of growth that are high but not quite as elevated as the AWE series. For example, a Bank staff proxy for the private sector based on HMRC PAYE Real Time Information shows median pay growth of around 7% currently.

Recent outturns in earnings growth have been stronger than standard models of wage growth, based on productivity, short-term inflation expectations and a measure of economic slack, would have predicted (Chart 1.3). The near-term outlook for pay growth is also expected to be somewhat stronger than projected in the August Report. The annual growth rate of private sector regular AWE is nonetheless still projected to decline in coming quarters, to below 6% next spring and to just below 5% by the end of 2024. This is broadly consistent with the forward-looking indications from the Decision Maker Panel and early evidence from the Bank’s Agents on private sector pay settlements next year.

Chart 1.3: Projections for private sector regular average weekly earnings four-quarter growth (a)



Sources: Bloomberg Finance L.P., Citigroup, ONS, YouGov and Bank calculations.

(a) The shaded swathe represents a range of projections from three statistical models of nominal private sector regular average weekly earnings growth, including a wage equation based on **Yellen (2017)**, a wage equation based on **Haldane (2018)** and a simple error-correction model based on productivity, inflation expectations and slack. The slack measure for these models is based on the MPC's estimate of the unemployment gap. The projections are dynamic, multi-step ahead forecasts beginning at a point within the models' estimation periods and are sensitive to data revisions, which can lead to changes in the swathe over the past as well as over the forecast period.

In the MPC's modal projection, private sector regular AWE growth falls to around 3% by the end of the forecast period, as short-term inflation expectations are assumed to fall back and a margin of spare capacity is expected to open up in the labour market in the medium term (Key judgement 2). This is a slightly higher medium-term profile for AWE growth compared with the August Report.

Private sector regular AWE growth is also expected to ease more slowly than the range of forecasts from a suite of wage models would predict (Chart 1.3). These empirical models illustrate what could happen if future pay setting is based on inflation expectations that take account of the sharply downward near-term path of CPI inflation among other factors. But there is insufficient evidence at present to be confident that wages will be set in this way.

This difference between empirical model outputs and the November projection is therefore one way of demonstrating the MPC's continuing judgement that second-round effects in both domestic prices and wages are expected to take longer to unwind than they did to emerge. Reflecting the higher expected path of wage growth, the Committee has decided in this forecast to increase slightly the scale of its judgement on the persistence of domestic prices in its modal projection, crystallising further some of the upside risks from second-round effects that have been incorporated into the mean projection previously. This is in addition to the Committee's decision in this forecast to increase the medium-term equilibrium rate of unemployment (Key judgement 2), which has a similar effect on increasing the persistence of wage growth and domestic inflationary pressures.

In the MPC's modal projection conditioned on the market-implied path of interest rates as captured in the 15-working day average to 24 October, CPI inflation declines to below the 2% target from the end of 2025, as an increasing degree of slack in the economy reduces domestic inflationary pressures alongside declining external cost pressures. CPI inflation is projected to be 1.9% in two years' time and 1.5% in three years (Table 1.C and Chart 1.4). Compared with the August Report modal projection, CPI inflation is expected to return to close to the 2% target slightly less rapidly in the middle of the forecast period, reflecting higher energy and other import price inflation, with the latest profile relatively flat around 2% over the four quarters from 2025 Q2.

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

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

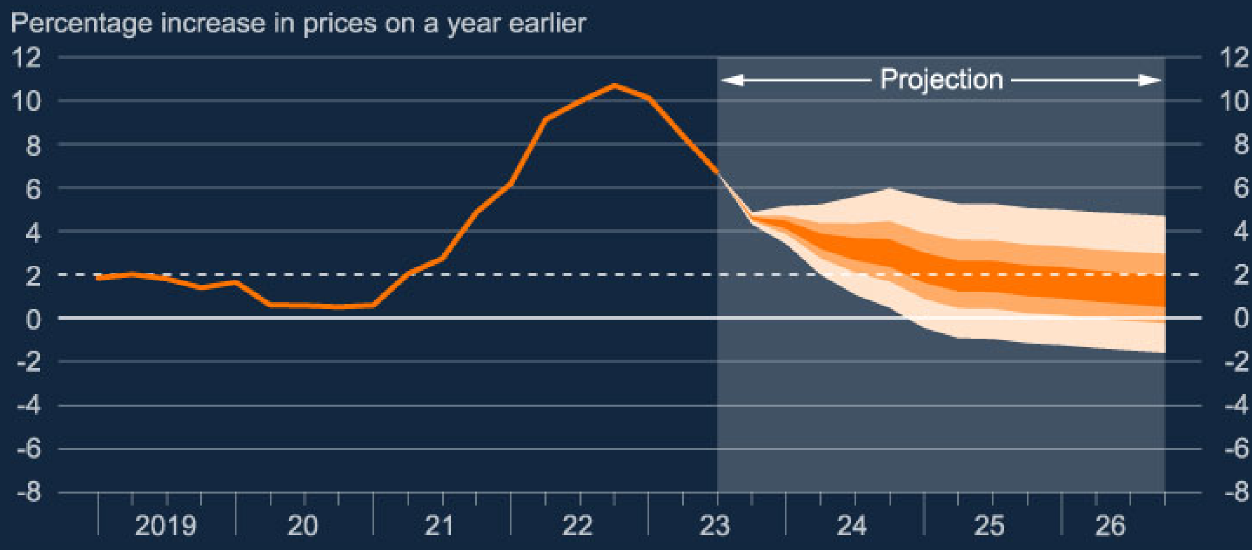
Table 1.C: The quarterly modal projection for CPI inflation based on market rate expectations (a)

	2023 Q4	2024 Q1	2024 Q2	2024 Q3	
CPI inflation	4.6	4.4	3.6	3.3	
	2024 Q4	2025 Q1	2025 Q2	2025 Q3	
CPI inflation	3.1	2.5	2.1	2.1	
	2025 Q4	2026 Q1	2026 Q2	2026 Q3	2026 Q4
CPI inflation	1.9	1.9	1.7	1.6	1.5

(a) Four-quarter inflation rate.

In the modal projection conditioned on the alternative assumption of constant interest rates at 5.25% over the forecast period, CPI inflation is expected to be 1.7% and 1.2% in two years' and three years' time respectively (Chart 1.5). These are lower than the Committee's modal forecasts at the same horizons conditioned on market rates, as the constant rate assumption is above the market curve to an increasing degree beyond the end of next year.

Chart 1.5: CPI inflation projection based on constant interest rates at 5.25%, 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 5.25%. The fan chart has the same interpretation as Chart 1.4.

The risks around the modal CPI inflation projection are judged to remain skewed to the upside.

There remain considerable uncertainties around the pace at which CPI inflation will return sustainably to the 2% target.

There are near-term risks in both directions around the paths of CPI inflation and pay growth. On the downside, weakness in non-labour input cost growth, including recent developments in producer price indices, could lead to a faster-than-expected decline in consumer goods price inflation. On the upside, the recent rise in private sector regular AWE growth could prove to be a better guide to near-term wage growth dynamics than the steer from other indicators of pay.

In the medium term, there remain considerable risks around the Committee's judgement that second-round effects in domestic prices and wages are expected to take longer to unwind than they did to emerge. On the one hand, these risks may be more balanced following the MPC's decision this round to increase further its assumption for the medium-term equilibrium rate of unemployment, owing both to resistance to past losses in real income and to more persistent labour market frictions (Key judgement 2), and the decision to increase slightly its judgement on the persistence of domestic prices. On the other hand, it is possible that the higher path of pay growth puts even greater upward pressure on domestic price inflation over the forecast period. There could remain an inconsistency between the wage and domestic price profiles in the modal projections, such that companies seek to rebuild their squeezed profit margins to a greater extent than has been assumed. Nevertheless, the Bank's Agents report that firms generally have limited scope to rebuild margins significantly by raising their prices.

The pace at which CPI inflation falls back to the 2% target will also depend on inflation expectations. An upside risk to the inflation outlook is that households and firms are less confident that inflation will fall back quickly and do not factor such a decline into their wage and price-setting behaviour. Since the August Report, indicators of household and corporate short-term inflation expectations have tended to decline further, while medium-term inflation compensation measures in financial markets have remained above their long-term averages. The Committee will continue to monitor measures of inflation expectations very closely and act to ensure that longer-term inflation expectations are anchored at the 2% target.

There are upside risks around the modal projection for UK CPI inflation from international factors. There remains the possibility of more persistence in consumer price inflation in the UK's major trading partners, for similar reasons to the risks of stronger domestic inflationary pressures at home including the tightness of labour markets, and wage and services price inflation remaining elevated for longer than expected.

In addition, geopolitical risks have increased following events in the Middle East. Although there has so far been only a relatively limited rise in energy prices, uncertainty around future oil prices has increased and the balance of risks around future oil prices has shifted from the downside to the upside, as indicated by implied volatilities and risk reversals in financial markets. A larger shock to energy prices could mean that CPI inflation falls back to the 2% target more slowly than currently expected, through both direct and second-round effects, while also leading to weaker growth (Key judgement 1).

Overall, the Committee judge that the risks around the modal projection for CPI inflation remain skewed to the upside, primarily reflecting the possibility of more persistence in domestic wage and price-setting, but also the increasing upside risk to inflation from energy prices now. This pushes up on the mean, relative to the modal, inflation projections in the forecast. Conditioned on market interest rates, mean CPI inflation is 2.2% and 1.9% at the two and three-year horizons respectively.

In the mean projection conditioned on the alternative assumption of constant interest rates at 5.25% over the forecast period, CPI inflation is expected to be 2.0% and 1.6% in two years' and three years' time respectively. This constant rate projection also returns inflation to the 2% target three quarters earlier than the mean market rate forecast.

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

	Average 1998–2007	Average 2010–19	2022	2023	2024	2025	2026
World GDP (UK-weighted) (c)	**3¼**	**2½**	**3**	**1½ (1½)**	**1¾ (1¾)**	**2 (2)**	**2**
World GDP (PPP-weighted) (d)	4¼	3¾	3¼	3 (2¾)	2¾ (2¾)	3 (3¼)	3
Euro-area GDP (e)	2¼	1½	3½	½ (½)	¾ (1)	1¾ (1½)	1¾
US GDP (f)	3	2½	2	2¼ (1½)	1½ (¾)	1¼ (1½)	1½
Emerging market GDP (PPP-weighted) (g)	5½	5	4	4 (4)	3¾ (3¾)	4 (4¼)	4
of which, China GDP (h)	10	7¾	3	5¼ (5¼)	4¼ (4½)	4¼ (4¾)	4¼
UK GDP (i)	**2¾**	**2**	**4¼**	**½ (½)**	**0 (½)**	**¼ (¼)**	**¾**
Household consumption (j)	3¼	2	5¼	½ (½)	0 (¾)	½ (¾)	1
Business investment (k)	3	4¼	9½	6¾ (1¾)	-1 (-2)	0 (1¾)	2
Housing investment (l)	3¼	4	9½	-5¾ (-5¾)	-6¾ (-6¼)	-2¾ (-3)	¼
Exports (m)	4½	3½	8¾	-¾ (-2)	¼ (¼)	¾ (½)	1
Imports (n)	6	4	14¼	-¾ (-3½)	1½ (2)	¾ (1½)	2
Contribution of net trade to GDP (o)	-¼	-¼	-1¾	0 (½)	-½ (-½)	0 (-¼)	-¼
Real post-tax labour income (p)	3¼	1½	-2¾	¾ (0)	1 (¾)	½ (½)	¼
Real post-tax household income (q)	3	1½	0	2 (1¼)	¼ (-¼)	¼ (¼)	½

Household saving ratio (r)	7¼	8	8	9¼ (9¼)	9½ (8½)	9½ (8)	9
Credit spreads (s)	¾	2½	1	¾ (½)	1 (¾)	1¼ (1¼)	1¼
Excess supply/**Excess demand** (t)	0	-1¾	**1¼**	¼ (½)	-½ (-¼)	-1¼ (-1¼)	-1½
Hourly labour productivity (u)	2¼	½	¾	¼ (-¼)	1¼ (¼)	¾ (¾)	¾
Employment (v)	1	1¼	¾	½ (1)	-½ (-½)	0 (0)	¼
Average weekly hours worked (w)	32¼	32	31½	31½ (31¾)	31¼ (31¾)	31¼ (31¾)	31¼
Unemployment rate (x)	5¼	6	3¾	4¼ (4)	4¾ (4½)	5 (4¾)	5
Participation rate (y)	63	63½	63¼	63½ (63¾)	63 (63¼)	62¾ (63)	62½
CPI inflation (z)	**1½**	**2¼**	**10¾**	**4¾ (5)**	**3¼ (2½)**	**2 (1½)**	**1½**
UK import prices (aa)	-¼	1¼	12¾	-1¾ (-4½)	-3 (-3¼)	¼ (½)	0
Energy prices – direct contribution to CPI inflation (ab)	¼	¼	3¾	-1¼ (-1½)	½ (½)	-¼ (-¼)	-¼
Average weekly earnings (AWE) (ac)	4¼	2	6	6¾ (6)	4¼ (3½)	2¾ (2½)	2
Unit labour costs (ad)	3	1¼	7	5 (4¾)	3¾ (3)	2¼ (1¾)	1¼
Private sector regular pay based unit wage costs (ae)	2	1½	6½	6 (7½)	3¾ (4)	3 (2½)	2¼

Sources: Bank of England, Bloomberg Finance L.P., Department for Energy Security and Net Zero, 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 August 2023 Monetary Policy Report. Calculations for back data based on ONS data are shown using ONS series identifiers.
(c) Chained-volume measure. Constructed using real GDP growth rates of 188 countries weighted according to their shares in UK exports.
(d) Chained-volume measure. Constructed using real GDP growth rates of 189 countries weighted according to their shares in world GDP using the IMF's purchasing power parity (PPP) weights.
(e) Chained-volume measure. Forecast was finalised before the release of the preliminary flash estimate of euro-area GDP for Q3, so that has not been incorporated.
(f) Chained-volume measure. Forecast was finalised before the release of the advance estimate of US GDP for Q3, so that has not been incorporated. Revisions since August have led to changes in the historical data.
(g) Chained-volume measure. Constructed using real GDP growth rates of 155 emerging market economies, 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 ABJR+HAYO.
(k) Chained-volume measure. Based on GAN8.
(l) Chained-volume measure. Whole-economy measure. Includes new dwellings, improvements and spending on services associated with the sale and purchase of property. Based on DFEG+L635+L637.
(m) Chained-volume measure. The historical data exclude the impact of missing trader intra-community (MTIC) fraud. Since 1998 based on IKBK-OFNN/(BOKH/BQKO). Prior to 1998 based on IKBK.
(n) Chained-volume measure. The historical data exclude the impact of MTIC fraud. Since 1998 based on IKBL-OFNN/(BOKH/BQKO). Prior to 1998 based on IKBL.
(o) Chained-volume measure. Exports less imports.
(p) Wages and salaries plus mixed income and general government benefits less income taxes and employees' National Insurance contributions, deflated by the consumer expenditure deflator. Based on [ROYJ+ROYH-(RPHS+AIIV-CUCT)+GZVX]/[(ABJQ+HAYE)/(ABJR+HAYO)]. The backdata for this series are available at **Monetary Policy Report – Download chart slides and data – November 2023**.
(q) Total available household resources, deflated by the consumer expenditure deflator. Based on [RPQK/((ABJQ+HAYE)/(ABJR+HAYO))].
(r) Annual average. Percentage of total available household resources. Based on NRJS.
(s) Level in Q4. Percentage point spread over reference rates. Based on a weighted average of household and corporate loan and deposit spreads over appropriate risk-free rates. Indexed to equal zero in 2007 Q3.
(t) Annual average. Per cent of potential GDP. A negative figure implies output is below potential and a positive figure that it is above.
(u) GDP per hour worked. Hours worked based on YBUS.
(v) Four-quarter growth in the ILO definition of employment in Q4. Up to June 2023, this projection is based on LFS employment data (MGRZ). Beyond this point, the Committee is drawing on the collective steer from other indicators of employment to inform its projection.
(w) Level in Q4. Average weekly hours worked, in main job and second job. Based on YBUS/MGRZ up to June 2023.
(x) ILO definition of unemployment rate in Q4. Up to June 2023, this projection is based on LFS unemployment data (MGSX). Beyond this point, the Committee is drawing on the collective steer from other indicators of unemployment to inform its projection.
(y) ILO definition of labour force participation in Q4 as a percentage of the 16+ population. Up to June 2023, this projection is based on LFS participation data (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: Monetary policy since the August 2023 Report

At its meeting ending on 20 September 2023, the MPC voted by a majority of 5–4 to maintain Bank Rate at 5.25%. Four members preferred to increase Bank Rate by 0.25 percentage points, to 5.5%. The Committee also voted unanimously to reduce the stock of UK government bond purchases held for monetary policy purposes, and financed by the issuance of central bank reserves, by £100 billion over the next 12 months, to a total of £658 billion.

Since the MPC's previous meeting, global growth had evolved broadly in line with the August Report projections, albeit with some differences across regions. Spot oil prices had risen significantly, while underlying inflationary pressures had remained elevated across advanced economies.

UK GDP was estimated to have declined by 0.5% in July and the S&P Global/CIPS composite output PMI fell in August, although other business survey indicators remained consistent with positive GDP growth. While some of this news could prove erratic, Bank staff expected GDP to rise only slightly in 2023 Q3. Underlying growth in the second half of 2023 was also likely to be weaker than expected.

There had been some further signs of a loosening in the labour market, although it remained tight by historical standards. The vacancies to unemployment ratio had continued to decline, reflecting both a steady fall in the number of vacancies and rising unemployment. The Labour Force Survey unemployment rate had risen to 4.3% in the three months to July, higher than expected in the August Report. Indicators of employment had generally softened against the backdrop of subdued activity.

Annual private sector regular average weekly earnings (AWE) growth had increased to 8.1% in the three months to July, 0.8 percentage points above the August Report projection. The recent path of the AWE was, however, difficult to reconcile with other indicators of pay growth. Most of these had tended to be more stable at rates of growth that were elevated but not quite as high as the AWE series.

Twelve-month CPI inflation fell from 7.9% in June to 6.7% in August, 0.4 percentage points below expectations at the time of the Committee's previous meeting. Core goods CPI inflation had fallen from 6.4% in June to 5.2% in August, much weaker than expected in the August Report. Services CPI inflation rose from 7.2% in June to 7.4% in July but declined to 6.8% in August, 0.3 percentage points lower than expected in the August Report. Some of those movements were linked to services such as airfares and accommodation that tend to be volatile over the summer holiday period. Excluding these travel-related components, services inflation had been more stable at continued high rates, albeit slightly weaker than expected.

CPI inflation was expected to fall significantly further in the near term, reflecting lower annual energy inflation, despite the renewed upward pressure from oil prices, and further declines in food and core goods price inflation. Services price inflation, however, was projected to remain elevated in the near term, with some potential month-to-month volatility.

Developments in key indicators of inflation persistence had been mixed, with the acceleration in the AWE not apparent in other measures of wages and with some downside news on services inflation. There were increasing signs of some impact of tighter monetary policy on the labour market and on momentum in the real economy more generally. Given the significant increase in Bank Rate since the start of this tightening cycle, the current monetary policy stance was restrictive.

The MPC would continue to monitor closely indications of persistent inflationary pressures and resilience in the economy as a whole, including the tightness of labour market conditions and the behaviour of wage growth and services price inflation. Monetary policy would need to be sufficiently restrictive for sufficiently long to return inflation to the 2% target sustainably in the medium term, in line with the Committee’s remit. Further tightening in monetary policy would have been required if there were evidence of more persistent inflationary pressures.

2: Current economic conditions

Global growth continues to be subdued, with stronger growth in the US offset by weaker growth in the euro area. Consumer price inflation remains elevated in advanced economies, but it has been falling this year. Global export prices are declining, reflecting lower energy prices, the continued clearing of supply chain bottlenecks and weak producer price inflation. The paths for policy rates implied by financial markets suggest rates are at or near their peaks in the UK, US and euro area.

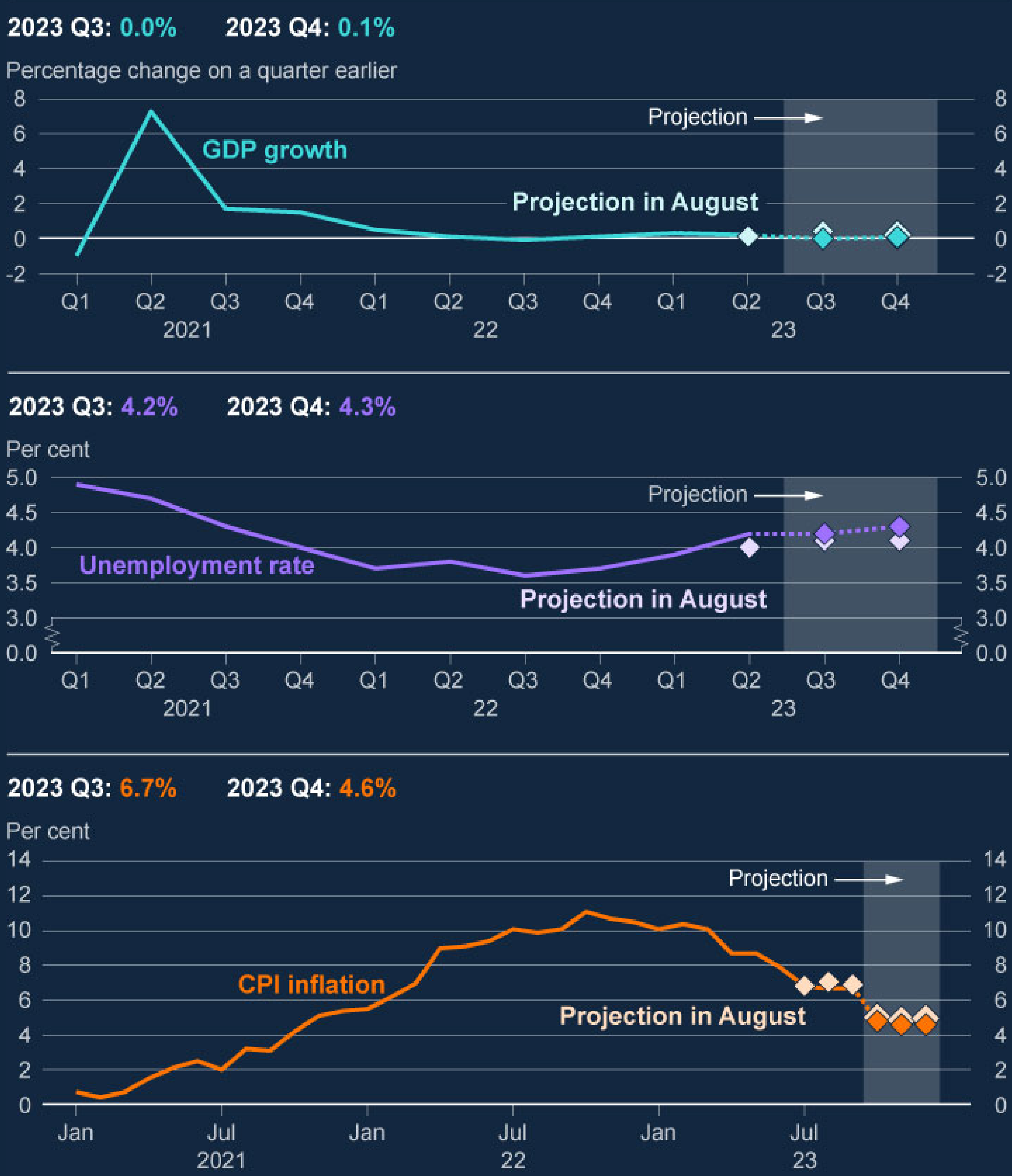
UK economic growth is slowing. Based on the steer from a range of business surveys, the level of GDP is expected to increase only slightly over 2023 H2, weaker than the growth over 2023 H1, and the projection in the August Report. Some of this slowing is likely to reflect the impact of the tightening in monetary policy that has been needed to combat high inflation.

The labour market remains tight but there are clear signs of loosening, with the slowdown in output growth feeding into a softening of labour demand and an easing of recruitment difficulties. Despite that loosening, all indicators suggest that nominal wage growth is still very high. But the recent rise in the official measure of pay growth is not matched by other wage data, and forward-looking indicators suggest that wage growth will fall back in 2024.

Since the August Report, CPI inflation has fallen, dropping from 7.9% in June to 6.7% in September, 0.3 percentage points lower than the projection in August. It remains well above the MPC's 2% target, however. Inflation is expected to fall further to 4.6% in 2023 Q4 and 4.4% in 2024 Q1. The majority of that near-term decline is accounted for by a falling contribution from household gas and electricity bills. Falling input price inflation is likely to reduce both consumer goods price inflation and food price inflation, while services price inflation is projected to remain elevated in the near term.

Chart 2.1: GDP growth is expected to be flat in 2023 H2, the unemployment rate is expected to continue to drift up and inflation is expected to have fallen in October

Near-term projections (a)



Sources: ONS and Bank calculations.

(a) The lighter diamonds show Bank staff's projections at the time of the August 2023 Monetary Policy Report. The darker diamonds show Bank staff's current projections. Projections for GDP growth and the unemployment rate are quarterly and show 2023 Q3 and Q4 (August projections show Q2 to Q4). Projections for CPI inflation are monthly and show October to December 2023 (August projections show July to September 2023). GDP growth rate 2023 Q3 projections are based on official data to August, the CPI inflation figure is an outturn. For unemployment, up to 2023 Q2 the series is based on official LFS data. Beyond this point, the Committee is drawing on the collective steer from other indicators of unemployment to inform its projection.

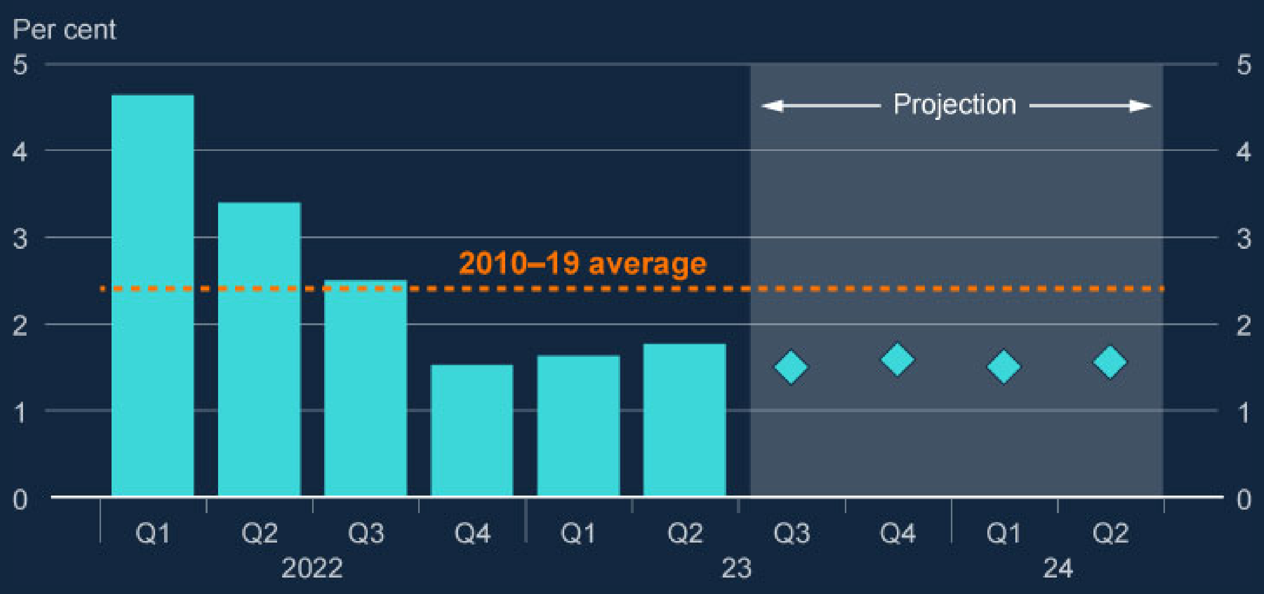
2.1: Global developments and domestic credit conditions

Global growth remains subdued…

Global growth has remained subdued over the course of 2023. UK-weighted world GDP is expected to have grown by around 0.4% in 2023 Q3, similar to Q2 and broadly in line with the projection in the August Report. Four-quarter growth in 2023 Q3 is expected to be around 1.5%, below its 2010–19 average of 2.4%. The latest indicators, such as cross-country purchasing managers' indices (PMIs), suggest that global GDP growth is likely to remain weak in Q4.

Chart 2.2: Global GDP growth continues to be subdued

UK-weighted world four-quarter GDP growth (a)



Sources: Refinitiv Eikon from LSEG and Bank calculations.

(a) See footnote (c) of Table 1.D for definition. Figures for 2023 Q3 to 2024 Q2 are Bank staff projections. These projections do not include the advance estimate of US 2023 Q3 GDP and the preliminary flash estimate of euro area 2023 Q3 GDP, which were released after the data cut-off.

…with notable regional differences.

Although aggregate global growth has evolved largely as expected, growth in major economies has been diverging. In particular, US GDP growth has been stronger, while the euro area has seen weaker GDP growth. Chinese GDP grew more rapidly than expected in Q3, but has been weaker than before the Covid pandemic for the last few years.

US GDP rose by 1.2% according to the advance estimate for 2023 Q3, faster than projected in the August Report. US growth has been around its pre-pandemic average in recent quarters despite the sharp tightening in monetary policy. Household consumption has grown more quickly than household incomes over 2022–23. This suggests that US households in aggregate have been more willing to run down the significant increase in savings accrued during the Covid pandemic (**de Soyres et al (2023)** provide an international comparison). The US has also been less exposed to global energy price shocks than Europe, as it is not reliant on gas supplies from Russia. When wholesale gas prices peaked in August 2022, European prices were over 10 times higher than in North America (**Broadbent (2023)**).

In the euro area, quarterly GDP fell by 0.1% in the 2023 Q3 preliminary flash estimate, following weak growth of around 0.1% in both Q1 and Q2. Tighter monetary policy has reduced growth, and retail energy prices remain high, despite having fallen since late 2022, which has weighed on real incomes and spending. Euro-area households have also tended to maintain savings built up over the pandemic period, rather than spending them. Recent analysis by staff at the ECB (**Battistini et al (2023)**) shows that most of the increase in household savings has been invested in financial assets such as equities and bonds, rather than in more liquid deposits. This suggests that household savings are less likely to be run down in the near term.

In China, GDP grew by 1.3% in 2023 Q3, up from 0.5% in Q2. Even including 2023 Q3, Chinese GDP growth has slowed since the Covid pandemic. Quarterly GDP growth has averaged around 1% since 2021, whereas 1.5% or more was typical before the pandemic. Other indicators of activity such as PMIs and retail sales have softened on the quarter. Activity in the property sector, which plays a significant role in China's economy, continued to be weak, with property starts falling by more than 15% over the 12 months to September. While only around 5% of UK exports go to China, its key role in global trade means that the indirect effect, via mutual trading partners, of changes in Chinese demand on the UK can be more significant. And there are other channels, for example via financial markets, through which developments in China can affect the UK (**Gilhooly et al (2018)**).

Consumer price inflation in advanced economies remains elevated, but it is declining…

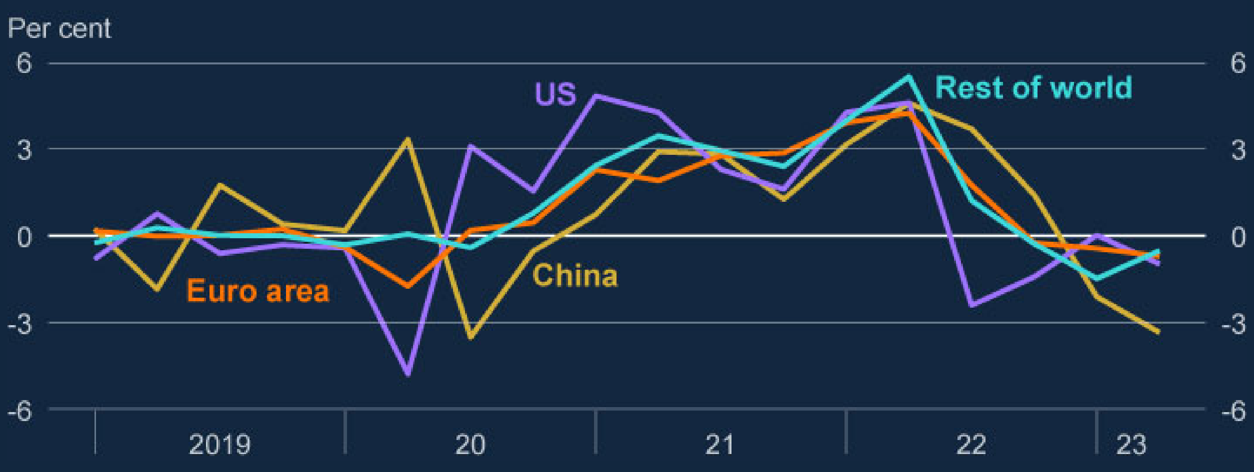
Headline inflation rates in the UK, euro area and US have all fallen this year. This largely reflects lower energy price inflation, although food and goods price inflation have also declined, particularly in the US. Nonetheless, inflation remains above central bank targets. In the US, the annual rate of PCE inflation was 3.4% in September, while in the euro area the HICP inflation rate fell to 2.9% in the flash estimate for October. Underlying inflationary pressures have remained elevated across the three regions. Services inflation remains high, as does wage growth. Measures such as the vacancies to unemployment ratio suggest that labour markets remain tighter than before the pandemic, even with the recent loosening in the US and in the UK.

…while global export prices have fallen...

Global export price inflation has eased markedly over the past year, with prices falling across regions in 2023 Q2 (Chart 2.3). This reflects the indirect effects of lower energy prices, the continued clearing of supply chain bottlenecks and weak producer price inflation. Measures of shipping costs have stabilised around their levels before the pandemic, having been significantly elevated in 2021–22.

Chart 2.3: Global export price inflation has fallen significantly

Quarterly change in export prices (a)



Sources: ECB, General Administration of Customs of the People’s Republic of China, US Bureau of Economic Analysis, other national statistical agencies, and Bank calculations.

(a) ‘Rest of world’ is a weighted average of 31 countries, including China and excluding major oil exporters. Countries are weighted by their share of UK imports. The final data points refer to 2023 Q2.

…although global energy prices have risen since August, and the risk of them rising further has increased.

While global energy prices remain significantly below the levels seen in 2022, they have increased since the August Report. Spot oil prices reached around £75 per barrel in September, and November 2023 futures prices have risen by about 20% since the August Report (Chart 2.4).

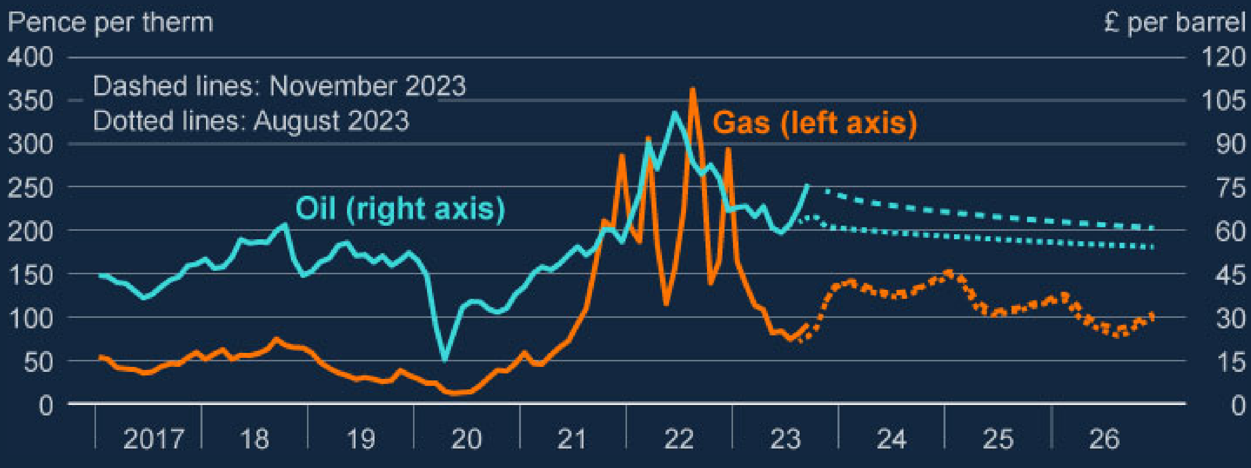
Given the subdued outlook for global activity, demand factors are unlikely to have put much upward pressure on oil prices. But oil supply has been reduced by cuts in production by OPEC and Russia, amounting to two million barrels per day over 2023.

Wholesale gas spot prices have also risen, but remain significantly lower and less volatile than in 2022. Wholesale gas futures prices are little changed since August (Chart 2.4). European gas storage levels are high compared with recent years, reducing the likelihood of shortages over the winter.

The risk of energy prices rising further has increased following recent events in the Middle East (Section 1).

Chart 2.4: Oil prices have increased since the August Report, while gas futures prices are little changed

UK wholesale gas and oil prices (a)



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

(a) Oil prices are Brent crude, converted to sterling. Gas prices are Bloomberg UK NBP Natural Gas Forward Day price. Dashed lines refer to respective futures curves using one-month forward prices based on the 15-day average to 24 October, while dotted lines are based on the 15-day average to 25 July. The final data points refer to futures curves at December 2026.

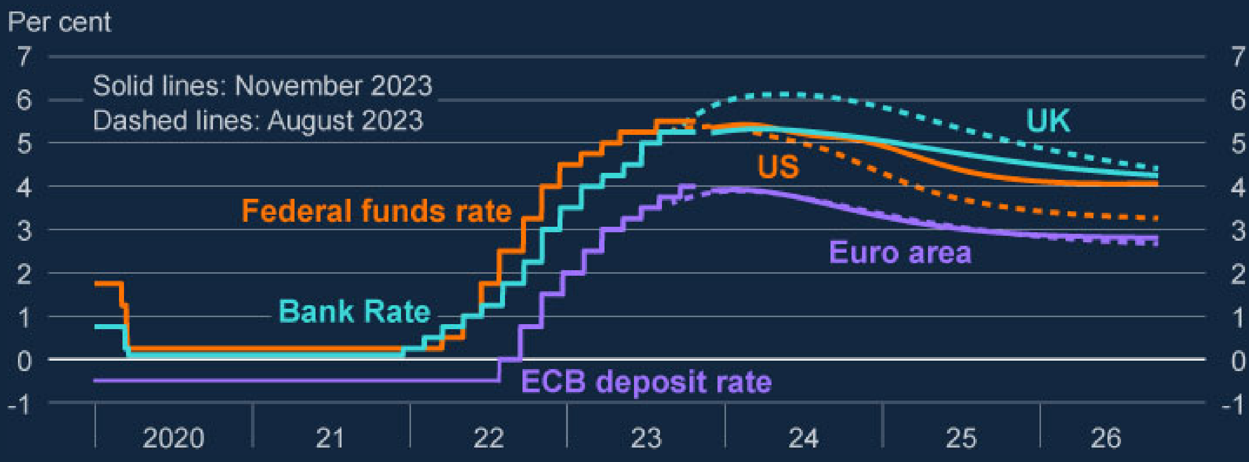
Market expectations suggest policy rates are at or near their peaks.

Over the past two years, central banks in the UK, US and euro area have tightened policy (Chart 2.5). Since August, the ECB Governing Council raised its key policy rates by 25 basis points in September and held rates on 26 October, leaving the deposit facility rate at 4%. In the US, the FOMC has kept the target range for the federal funds rate unchanged at 5.25%–5.5%.

In both the US and euro area, market-implied paths for policy rates are consistent with no further increases in this tightening cycle. Since the August Report, the market-implied path for policy rates in the euro area is little changed, while the path for US rates is, on average, around 50 basis points higher (Chart 2.5).

Chart 2.5: Interest rates are at or close to the peak of their market-implied paths in the US, euro area and UK

Policy rates and forward curves for the US, euro area and UK (a)



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

(a) All data as of 24 October 2023. The August curves are estimated based on the 15 UK working days to 25 July 2023. The November curves are estimated using the 15 working days to 24 October 2023. Federal funds rate is the upper bound of the announced target range. ECB deposit rate is based on the date from which changes in policy rates are effective. The final data points refer to futures curves at September 2026.

UK policy rate expectations have fallen since August...

Since the August Report, market expectations of UK policy rates have fallen by about 60 basis points over the next three years, on average (Chart 2.5). The market curve has also flattened. The UK curve remains broadly above the US and euro area, although the gap has narrowed.

Partly reflecting stronger demand in the US leading the dollar to appreciate, and a smaller differential between expected policy rates in the UK and the US and euro area, the sterling effective exchange rate has depreciated by about 2.3% since the August Report. Sterling has fallen by 5.5% against the dollar, and by 1% against the euro.

Yields on 10-year government bonds have risen since August across advanced economies. This partly reflects market expectations that policy rates will remain higher for longer. But models used by Bank staff to analyse movements in long-term bond yields suggest it also reflects a rise in term premia – the compensation that investors require for the risks associated with holding government bonds of longer duration.

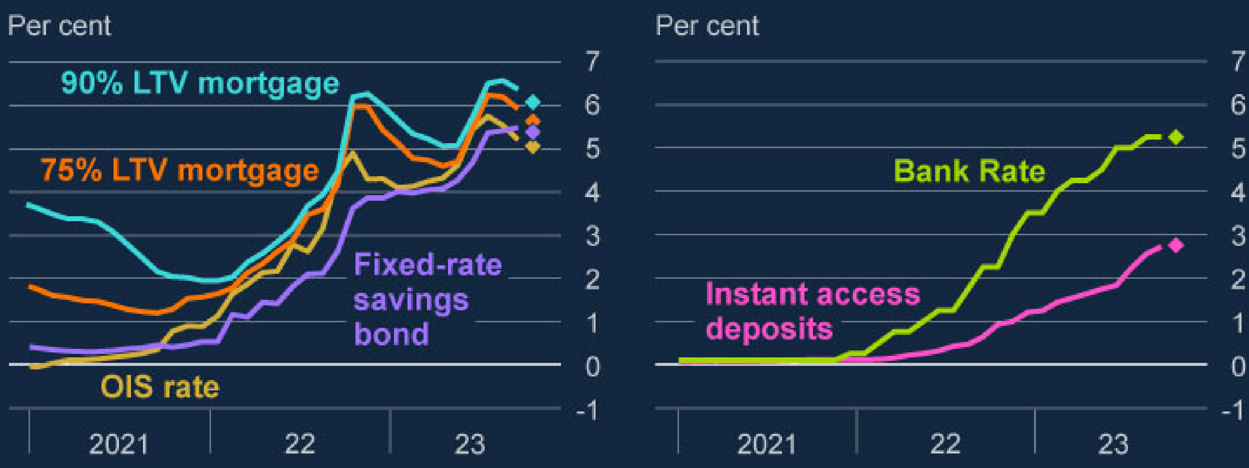
…and UK fixed-rate mortgage rates have declined.

Fixed-rate mortgages make up around 80% of the stock of UK mortgages, and the rates on new fixed-rate mortgages are influenced by expectations of Bank Rate (Box C of the **February 2022 Report**). Since August, quoted fixed-rate mortgage rates have fallen, largely reflecting pass-through of lower reference rates, but they remain substantially higher than at the start of the Bank Rate tightening cycle (Chart 2.6). Analysis by Bank staff has found that the pass-through from reference rates to mortgage rates has occurred largely as expected during this period as a whole (Box B of the **May 2023 Report**).

Interest rates on new fixed-rate savings bonds, which, like new fixed-rate mortgage rates, are influenced by expectations of Bank Rate, have ticked down slightly in the most recent data. Instant access savings accounts tend to be priced relative to current Bank Rate, and pass-through from previous increases in Bank Rate has been slow. However, the recent data suggest this has accelerated, with average quoted rates increasing by around 90 basis points between June and October, although the spread between instant access deposit rates and Bank Rate remains wide (Chart 2.6). Some of this acceleration may be driven by banks and building societies responding to the FCA’s **action plan on cash savings**, which aims to ensure firms appropriately reflect changes in Bank Rate in the rates they offer to depositors.

Chart 2.6: Rises in reference rates have fed through to mortgage rates, and increasingly deposit rates

Average quoted interest rates on two-year fixed-rate mortgages, fixed-rate savings bonds, instant access accounts, and the respective reference rates (a)



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

(a) The reference rate for mortgages and fixed-rate savings bonds is the two-year overnight index swap (OIS) rate. 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**. Diamonds for mortgage and saving products represent averages of daily quoted rates using data to 24 October and were provisional. OIS rate and Bank Rate show monthly averages and the respective diamonds show the average of daily rates to 24 October.

Interest rates on bank loans to UK businesses have been rising, reflecting the increase in Bank Rate. In the latest data for August, the interest rate on new bank loans stood at nearly 7%, compared to around 2% at the start of the tightening cycle.

Larger companies are able to borrow from capital markets, for example by issuing bonds. While spreads over risk-free rates on both high-yield and investment-grade corporate bonds have narrowed by around 90 basis points since late last year, higher risk-free rates have increased the overall cost of issuing bonds.

Credit availability is tightening, reflecting increased credit risk.

The availability of mortgage credit declined in 2023 Q3, continuing the trend of the last two years, according to the latest **Credit Conditions Survey (CCS)**. Tighter wholesale funding conditions and expectations for house prices were the most significant factors reported to be reducing credit availability. The availability of unsecured credit fell slightly on the quarter, although lenders expected little change over the next three months.

Businesses are reporting a decline in credit availability. The credit availability balance in the **Deloitte CFO Survey**, which covers large companies, has fallen, although it remains significantly above the levels seen during the global financial crisis. Data from the latest **Federation of Small Businesses Index** suggest that credit availability is tightening for SMEs, although fewer than half of UK SMEs use any external financing, according to the 2023 Q2 **BVA BDRC SME Finance Monitor**. In the CCS, lenders reported that credit availability to the corporate sector was largely unchanged in 2023 Q3.

The FPC has judged that the tightening of lending standards seen over recent quarters reflects increased credit risk, rather than defensive actions by banks to protect their capital positions (**Financial Policy Summary and Record** – October 2023).

Credit volumes are subdued for both households and businesses, in part reflecting weak demand for credit.

Growth in mortgage lending has been falling, and is approaching the low rates seen immediately following the global financial crisis. This lower growth has been driven by a reduction in gross mortgage lending, with repayments by mortgagors broadly flat. Mortgage approvals have been somewhat lower than the 2010–19 average, suggesting subdued lending volumes will continue in the near term. Section 3.3 discusses the impact of higher interest rates on the housing market, and how that affects the outlook for demand.

Net finance raised by companies continues to be weak, driven in part by subdued demand for credit. A majority of lenders in the CCS reported that demand for corporate lending had contracted in 2023 Q3, continuing a broad trend over the previous four quarters. In the year to September, UK non-financial companies made net repayments of around £17 billion of financing, well below the 2010–19 average for the same point in the year of a roughly £10 billion increase in borrowing. Weakness in net bank lending is particularly pronounced among SMEs. Much of this is due to continued repayment of borrowing under Covid loan schemes.

Money growth has continued to slow.

Broad money growth has continued to slow. The annual growth rate fell to -4.2% in September. The sharp decline in the latest month largely reflects base effects related to a large increase in broad money one year ago, associated with developments at liability-driven investment funds. The growth rate of M4 excluding other financial corporations fell by less, to -0.7% (Chart 2.7). More generally, money growth is well below the 2010–19 average of 3.8% and has decelerated significantly since 2020–21. The slowing in money growth has been driven by a reduction in net lending by banks, particularly in net lending to other financial institutions, as well as sales from the Bank's asset purchase facility, which tend to reduce the level of bank deposits.

Chart 2.7: Aggregate money and lending growth have slowed

Twelve-month growth rate of aggregate money and lending (a)

(a) Aggregate money, excluding other financial corporations refers to M4 excluding other financial corporations (OFCs). Aggregate money and aggregate lending refer to M4 and M4 lending respectively, both excluding intermediate other financial corporations (IOFCs). OFCs are corporations engaged in financial services that are not banks nor building societies, for example insurance companies and pension funds. IOFCs are specialised entities that mainly provide intermediation services to banks and building societies. Only quarterly data are available for the aggregate money and aggregate lending series from 1998 Q4 to 2010 Q2. All other data are at a monthly frequency. The final data points refer to September 2023. For more information on these data, see **Further details about M4 data**, **Further details about M4 excluding intermediate other financial corporations (OFCs) data** and **Further details about M4 lending excluding lending to intermediate other financial corporations data**.

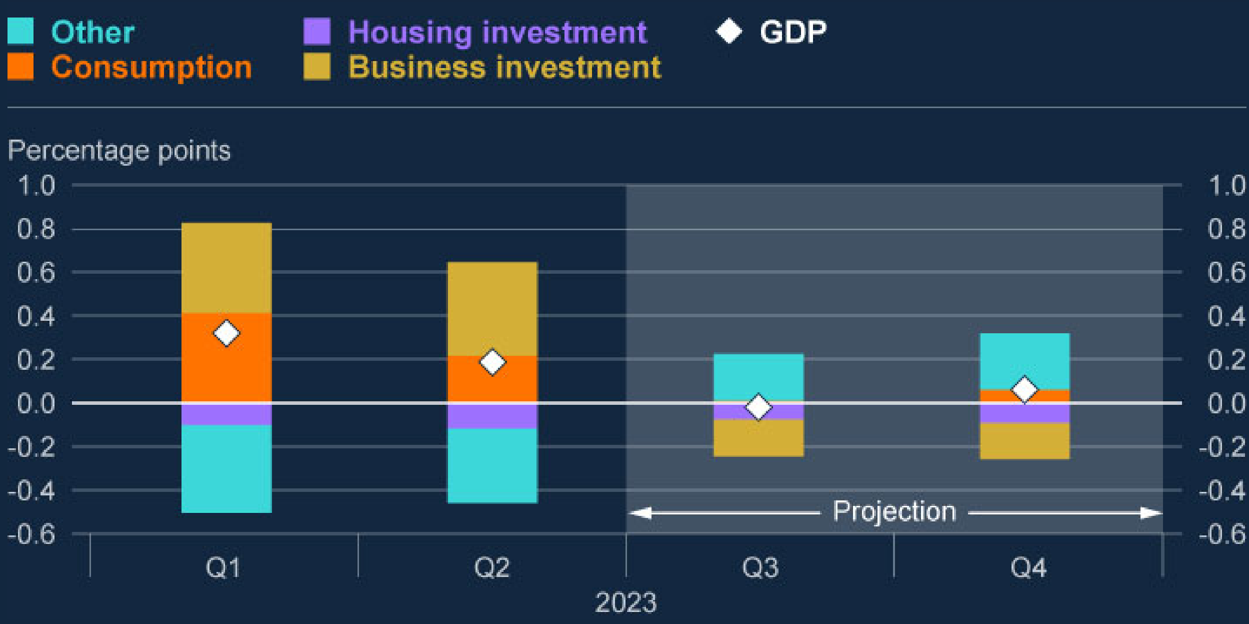
2.2: Domestic activity and the labour market

UK GDP growth averaged around ¼% per quarter over 2023 H1.

Latest estimates suggest GDP increased by 0.2% in 2023 Q2, down a little from 0.3% growth in Q1 but marginally stronger than expected in the August Report. Household consumption and business investment boosted headline GDP, while housing investment dragged on growth (Chart 2.8). Although Q2 GDP grew only slightly on the previous quarter, the latest annual ONS Blue Book revisions shifted up the level of GDP by around 2% (Box C).

Chart 2.8: GDP is expected to be broadly flat in 2023 H2

Contributions to quarterly GDP growth (a)



Sources: ONS and Bank calculations.

(a) Diamonds show quarterly headline GDP growth. Figures for 2023 Q3 and Q4 are Bank staff projections.

Economic activity is expected to be flat in Q3.

Based on ONS data to August, UK GDP is expected to have been flat in 2023 Q3, weaker than expected in August. Output growth was volatile within the quarter, in part reflecting the impact of strikes and poor weather. Monthly output was estimated to have fallen by 0.6% in July before rebounding slightly in August, increasing by 0.2% on the month.

Breaking down GDP by expenditure category (Chart 2.8), housing investment is expected to have continued to contribute negatively to growth in 2023 Q3, as higher interest rates weighed on house building and housing transactions. Business investment is also expected to have dragged on growth: strong business investment in the first half of the year was partly driven by volatile components such as aircraft investment, and that is expected to unwind. Household consumption is expected to have continued to contribute positively to GDP growth, though to a lesser extent than in 2023 H1. Positive real income growth is expected to have provided some support to household spending, while higher interest rates have reduced consumption through a range of channels (Section 3).

Some business surveys point to a fall in output in Q4…

The S&P Global/CIPS UK composite current output PMI has been below the 50 'no change' mark for several months, consistent with a fall in Q4 GDP based on historical relationships (Chart 2.9). The S&P Global/CIPS UK composite new orders and new export orders have also been weak.

Contacts of the Bank's Agents' report subdued demand and growing concerns about the economic outlook, most notably from contacts in consumer-facing sectors.

Chart 2.9: Some survey measures suggest economic activity growth will weaken in 2023 H2, while forward-looking measures are less pessimistic

Survey indicators of UK output growth (a)

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

(a) A reading of above 50 indicates an increase on the previous month while a reading below 50 indicates a fall. Dashed lines represent the long-run series averages, calculated from January 1998 for the current output and new orders series and July 2012 for the output expectations series. Latest data are flash estimates for October 2023.

…but some more forward-looking business survey indicators are less pessimistic about growth prospects.

Some more forward-looking business survey indicators suggest GDP growth could be more resilient. The S&P Global/CIPS UK future output PMI series, which asks firms about their expectations for output in 12 months' time, is only a little below its long-run average

(Chart 2.9). Other similarly forward-looking business activity indicators, such as the latest Lloyds Business Barometer and the British Chambers of Commerce's Quarterly Economics Survey, have also remained consistent with positive GDP growth.

Overall, Bank staff project a 0.1% increase in GDP in Q4. The 2023 H2 projection is weaker than expected in the August Report.

Combining the steers from a range of business surveys, among which the near-term output balances get the greatest weight, Bank staff expect GDP growth of 0.1% in 2023 Q4. The projection for broadly flat output over the second half of 2023 is weaker than the August projection of around ¼% growth per quarter. The anticipated softening in growth chimes with the weakening observed across several other near-term indicators, such as those for employment growth, the housing market and global activity (Section 2.1).

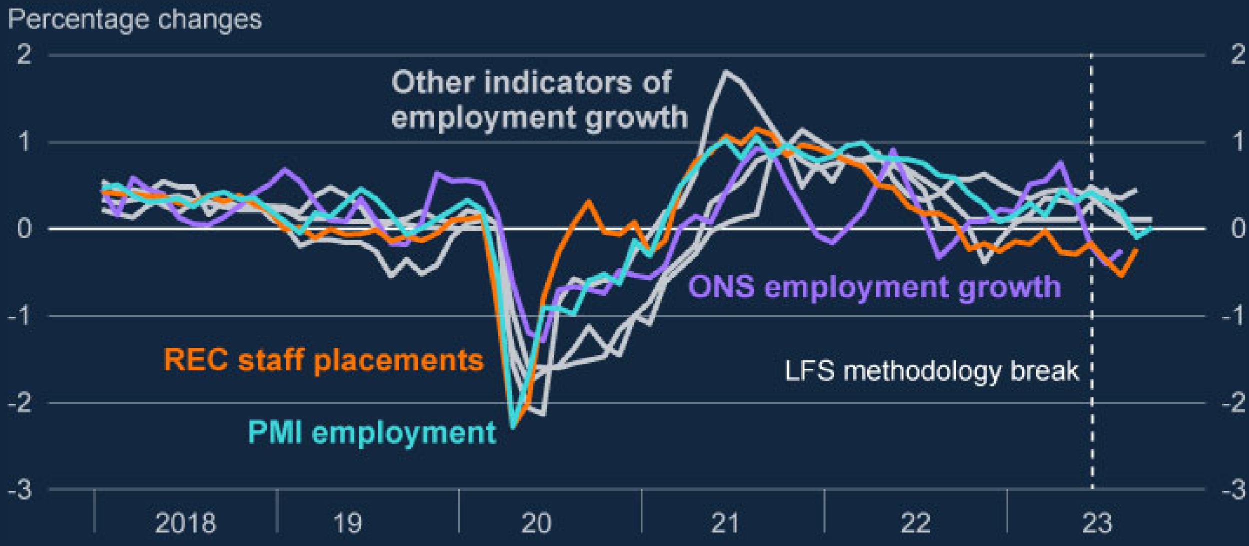
The softening in activity is affecting labour demand.

Timely measures of labour demand have softened against a backdrop of subdued activity. Vacancies edged down further from their 2022 peaks in the three months to September. The S&P Global/CIPS UK composite employment PMI has also been in contractionary territory for a couple of months (Chart 2.10). The permanent staff placements index from the KPMG/REC UK Report on Jobs was below its historical average in September.

Official estimates of employment growth have also weakened. The most recent ONS Workforce Jobs and HMRC payrolls data point to a modest but positive quarterly growth in employment in Q3, and a small contraction in employment growth in Q4. There have been notable uncertainties surrounding recent Labour Force Survey (LFS) estimates. These have made the data harder to interpret and have resulted in the ONS temporarily pausing its publication of LFS estimates following the June data (Box B). Alternative experimental statistics published by the ONS, which take the LFS employment estimate in the three months to June and project it forward in line with the HMRC payrolls data thereafter, suggest that employment fell by 0.2% in the three months to August. As experimental statistics, these estimates need to be interpreted with caution.

Chart 2.10: Most indicators of employment growth are softening

Indicators of employment growth (a) (b)



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

(a) ONS employment growth is the change in headline employment level for people aged 16+ over the value three months earlier. Employment indicators include data from: ONS/HMRC Pay As You Earn (the three-month change in the monthly number of PAYE employees), the Bank's Agents (employment intentions over the next six months); KPMG/REC/S&P Global (weighting together the temporary and permanent staff placements series); Lloyds Business Barometer (balance of higher staffing levels over next 12 months); and S&P Global/CIPS (PMI composite employment index). The surveys and Agents' scores have varying samples and questions but have been mean and variance adjusted to match the ONS employment growth series between 2000 and 2019, and are therefore shown consistent with the three-month on three-month growth rate. The final data point for ONS employment growth is the three months to August 2023.
(b) The LFS employment growth series shown here uses official LFS estimates to June 2023 and thereafter uses the ONS's experimental alternative labour market statistics (based on HMRC payrolls data). See Box B for further information.

Bank staff take a combined steer from a wide range of indicators to inform their view about underlying employment growth. **Daniell and Moreira (2023)** describes how these indicators feed into the near-term forecast and the evolution of this indicator-based model forecast over time is shown in the aqua line in Chart 2.11. The indicator-based model suggests that employment growth has slowed gradually since end-2021. The latest staff projections suggest employment will be broadly flat over the second half of 2023.

Chart 2.11: An indicator-based model points to flat employment in 2023 Q4

Measures of quarterly employment growth (a) (b)

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

(a) LFS employment growth is the change in headline employment level for people aged 16+ over the value in the previous quarter. Latest data point is for 2023 Q2.
(b) Bank staff's indicator-based model of near-term employment growth uses mixed-data sampling (or MIDAS) techniques (see **Daniell and Moreira (2023)** for more detail). A range of indicators inform the model, including series from the Bank of England Agents, the Lloyds Business Barometer, ONS/HMRC PAYE payrolls, S&P Global/CIPS purchasing managers' index and the KPMG/REC UK Report on Jobs. Indicators are weighted together according to their relative forecast performance in the recent past. Diamonds represent projections for 2023 Q3 and Q4.

Labour force participation has increased from its mid-2022 trough.

The ONS's estimate of the proportion of working-age people in the labour force is also affected by the uncertainties surrounding the LFS estimates, with the participation rate probably overestimated (Box B). These issues notwithstanding, the rise in participation since mid-2022 has been partly driven by a return of students to the labour force. Those reporting they are outside the labour force due to looking after family or the home and retirement has also declined. The number of people saying they are unable to participate in the workforce due to sickness remains elevated, however, and is just over half a million higher than before the pandemic.

The labour market is loosening, and by a little more than projected in the August Report…

A range of evidence points to the labour market having loosened, consistent with a restrictive stance of monetary policy. The ONS vacancies to unemployment ratio, a key measure of labour market tightness, has been falling since August 2022. This reflects both a steady fall in the number of vacancies and rising unemployment (right panel of Chart

2.12). The ONS's alternative experimental statistics, which take the LFS unemployment estimate in the three months to June and project it forward in line with the claimant count data thereafter, suggest that the unemployment rate may have increased to 4.2% in the three months to August. This would be higher than expected in the August Report. The unemployment rate is projected to rise a little further in 2023 Q4.

While there are significant uncertainties around the LFS data at present (Box B), other indicators are also indicative of a loosening in the labour market. Recent KPMG/REC Report on Jobs surveys have pointed to some easing of recruitment difficulties and a pick-up in staff availability. This is consistent with evidence from the ONS's Business Insights and Conditions Survey, in which the number of firms reporting difficulties recruiting has trended down in recent months. The latest recruitment difficulties score from the Bank's Agents has also fallen back from its peak in mid-2022, though it remains above its historical average. Despite the reported easing in hiring constraints, Agents' contacts reported that persistent skills shortages remain in some sectors.

…but it remains tight by historical standards.

Despite evidence that the labour market is loosening, it remains tight in a historical context. The vacancies to unemployment ratio is still elevated, and above its 2019 Q4 level (left panel of Chart 2.12). And it is noteworthy that the period immediately before the pandemic was one where there was considered to be little spare capacity in the labour market (see **November 2019 Report**).

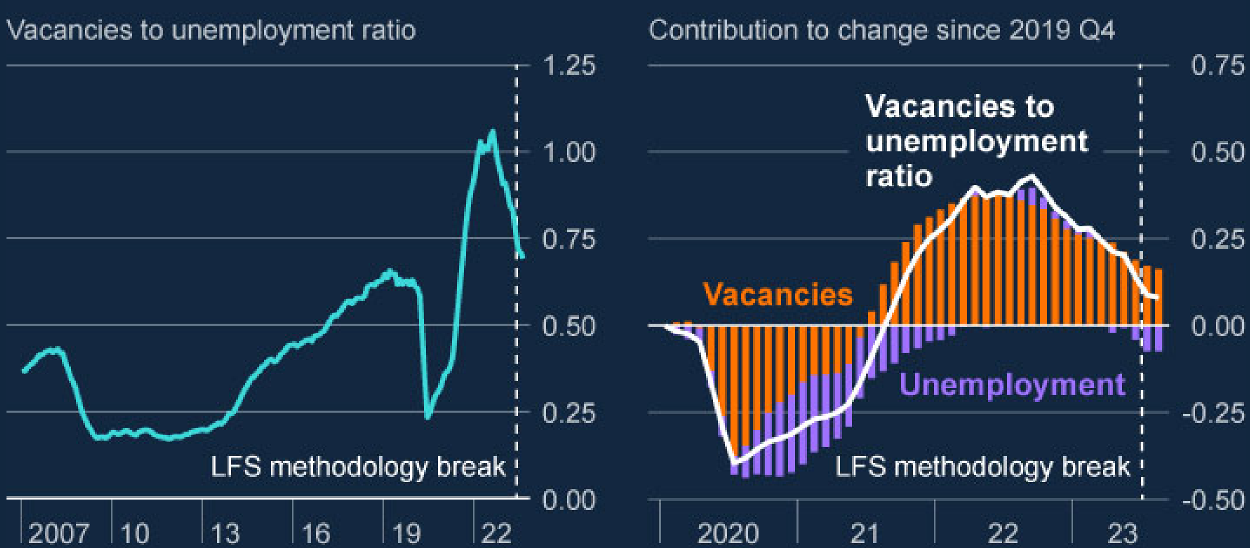
Another measure of labour market tightness is the gap between the current unemployment rate and the equilibrium rate of unemployment. The equilibrium rate of unemployment – which is not observable and has to be estimated – is defined as the rate consistent with meeting the inflation target in the medium term (see Box 4 of the **February 2018 Report**). If the unemployment rate is below this equilibrium rate that tends to put upwards pressure on wage growth and inflation, as companies need to pay more to recruit suitably skilled staff.

The long-term equilibrium unemployment rate changes only slowly over time, determined by structural features of the economy that affect the time it takes for people to find the right jobs. The MPC's latest estimate suggests that the long-term equilibrium unemployment rate is just above 4% (see Section 3 of the **February 2023 Report**). The Committee will revisit this estimate as part of its forthcoming supply stocktake.

The medium-term equilibrium unemployment rate is more relevant for determining the degree of slack in the labour market and hence wage pressures, however. It can be affected by cyclical factors, such as changes in the mix of jobs and job seekers. Wage growth has been higher than standard models would have predicted (Chart 2.14), which could be explained by a rise in the medium-term equilibrium unemployment rate. For example, the rate may have increased if employees and domestic firms have sought compensation in the form of higher nominal pay and domestic selling prices for the reductions in real incomes that they have experienced after the terms of trade shock. There is also some evidence that the efficiency with which vacancies are matched to those seeking work has decreased in recent years. In its November forecast, the MPC has made a judgement to further increase the medium-term equilibrium unemployment rate since the sharp rise in energy prices – it is judged to be around 4½% currently (Key judgement 2 in Section 1).

Chart 2.12: The labour market remains tight, although it has loosened since mid-2022

Vacancies to unemployment ratio and contributions to changes in vacancies to unemployment ratio since 2019 Q4 (a)



Sources: ONS and Bank calculations.

(a) Latest data points are for the three months to August 2023. The LFS unemployment series shown in these charts use the official LFS estimates to June 2023 and thereafter use the ONS's experimental alternative labour market statistics (based on claimant count data). See Box B for further information.

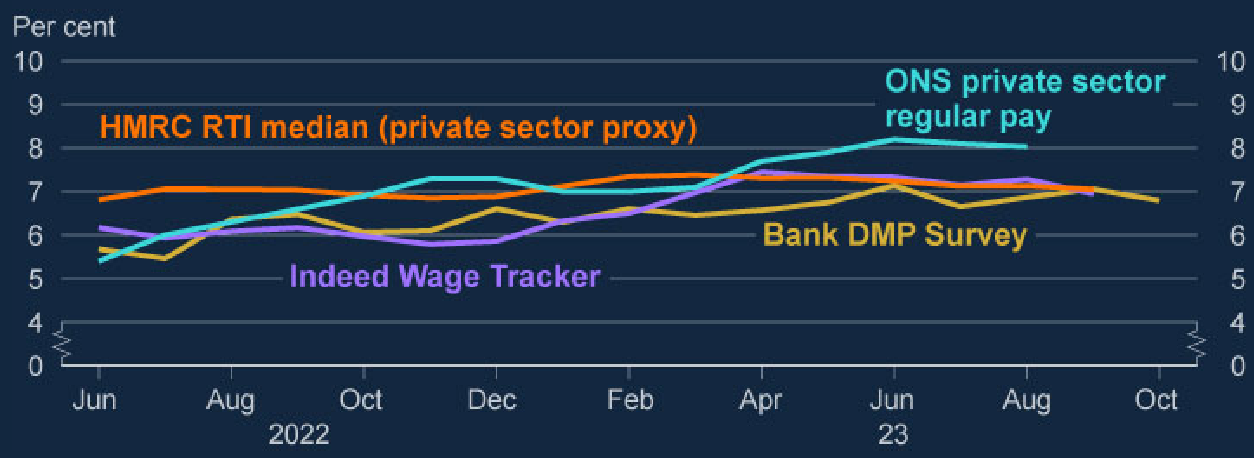
2.3: Wage growth and inflation

Despite a loosening labour market, nominal wage growth is still high.

Alongside labour market tightness and services CPI inflation, the MPC monitors various measures of wage growth as they could indicate independent evidence of more persistent domestic inflationary pressures. The ONS measure of annual private sector regular average weekly earnings (AWE) growth was 8.0% in August. This was 0.8 percentage points higher than expected in the August Report, largely accounted for by upward revisions to previous months' data. This measure had been on an upward trend between February and June, before falling back slightly in July and August.

Chart 2.13: Annual private sector regular pay growth stood at 8.0% in August, higher than other indicators

Measures of annual private sector wage growth (a)



Sources: DMP Survey, Indeed Hiring Lab, ONS and Bank calculations.

(a) The adjusted HMRC Real Time Information (RTI) measure strips out pay in sectors with a high share of public workers, such as public administration and defence, social security, education, health and social work, to proxy private sector wage developments. In contrast to the AWE measure of private sector regular pay, RTI data include bonus payments. The latest data are for August 2023 (ONS private sector regular pay), September 2023 (HMRC RTI and Indeed Wage Tracker) and October 2023 (Bank DMP) respectively.

While all measures of pay growth are elevated, the recent rise in the annual rate of growth of private sector regular AWE is not matched by other indicators.

Other pay indicators have been more stable at rates of growth that are also high, but do not show a further rise in recent months (Chart 2.13). According to the DMP, annual pay increases have been steady at around 7% between April and October. HMRC administrative data on payrolls suggest that median private sector pay growth was broadly flat at around 7% in the months leading up to September. The Indeed Wage Tracker, which measures the average annual change in the wages stated in job adverts, points to wage growth falling back slightly to around 7% between April and September. Meanwhile, contacts of the Bank's Agents continue to report that average annual pay settlements were in the region of 6% to 6.5%.

The AWE data are based on the Monthly Wages and Salaries Survey (MWSS), covering a representative sample of 9,000 firms with more than 20 employees. The MWSS is separate from the LFS and is not subject to falling response rates because firms are legally obliged to respond. Some of the recent divergence between the AWE measure and the other indicators could reflect sampling variability or differences in methodology and data coverage. For example, the MWSS and other surveys can be affected by differences in the characteristics of surveyed firms and the full population of firms, while the HMRC RTI estimates are based on the PAYE system that collects income tax and national insurance from employment and therefore covers all firms. In addition, in contrast to HMRC RTI median pay growth, the AWE measure of average pay growth will be sensitive to changes in pay across the whole wage distribution.

The MPC will continue to monitor all data on pay growth. While the recent rise in the annual rate of growth of private sector regular AWE is not mirrored in other indicators, all pay measures continue to signal that wage growth is high and, if sustained, not consistent with inflation returning to target in the medium term.

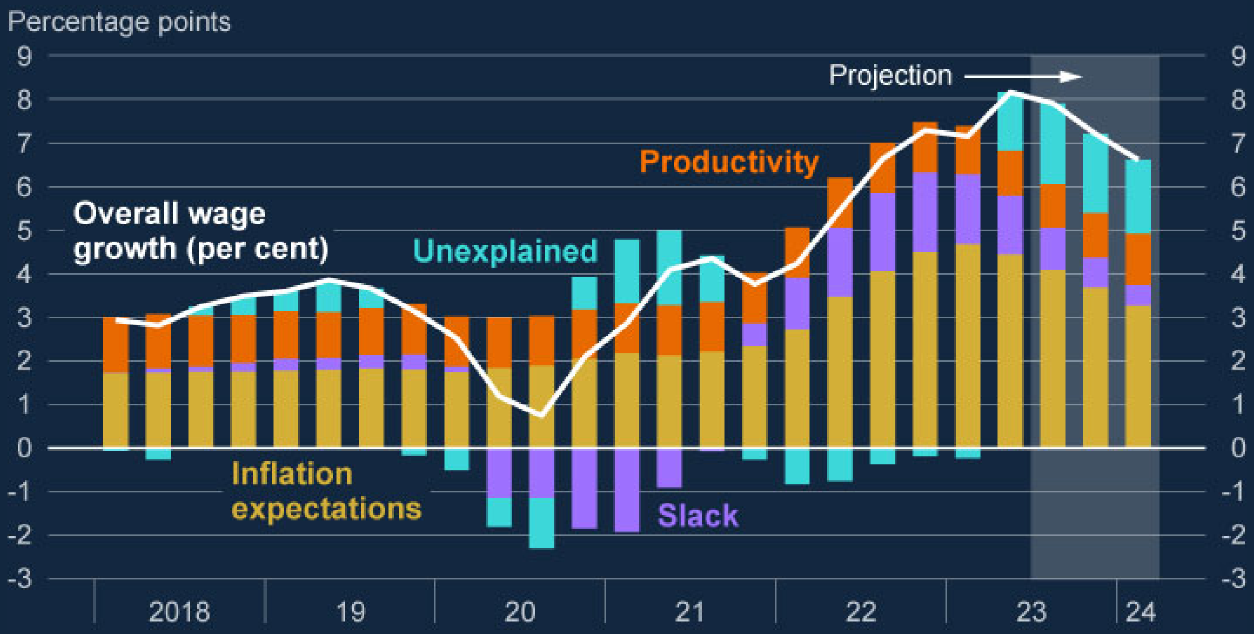
A looser labour market and falling inflation are expected to contribute to a moderation in wage growth…

Labour market tightness has played a role in elevated nominal wage growth to date, and the **August 2023 Report** highlighted tentative evidence that it explains some of the wide variation in pay growth across sectors. The unexplained strength in pay growth recently may reflect a rise in the medium-term equilibrium unemployment rate (Section 2.2), as well as stronger second-round effects of external cost shocks on inflation in wages and domestic prices. With the labour market now loosening, and inflation set to moderate, some of the upward pressures on wage growth should ease in 2024.

Wage growth tends to rise when headline inflation and inflation expectations increase. Near-term inflation expectations in particular tend to be strongly correlated with current headline inflation (Chart 2.19). Rising headline inflation, and the associated increase in near-term inflation expectations, appear to have played a role in supporting wage growth since 2021 (Chart 2.14). As headline inflation and near-term inflation expectations have started to fall, they are likely to exert less upward pressure on pay growth in 2024.

Chart 2.14: Easing labour market tightness and falling inflation expectations should reduce pay growth in the near term

Contributions to annual private sector regular pay growth (a)



Sources: ONS and Bank calculations.

(a) Wage equation based on **Yellen (2017)**. Private sector regular pay growth is Bank staff's estimate of underlying pay growth between January 2020 and March 2022 and ONS private sector regular pay growth otherwise. Short-term inflation expectations are based on the Barclays Basix Index and the YouGov/Citigroup one year ahead measure of household inflation expectations and projected forward based on a Bayesian VAR estimation. Slack is based on the MPC's estimate of the vacancies to unemployment ratio. Productivity growth is based on long-run market sector productivity growth per head. The unexplained component is the residual. Data are to 2023 Q2, projections are for 2023 Q3 to 2024 Q1.

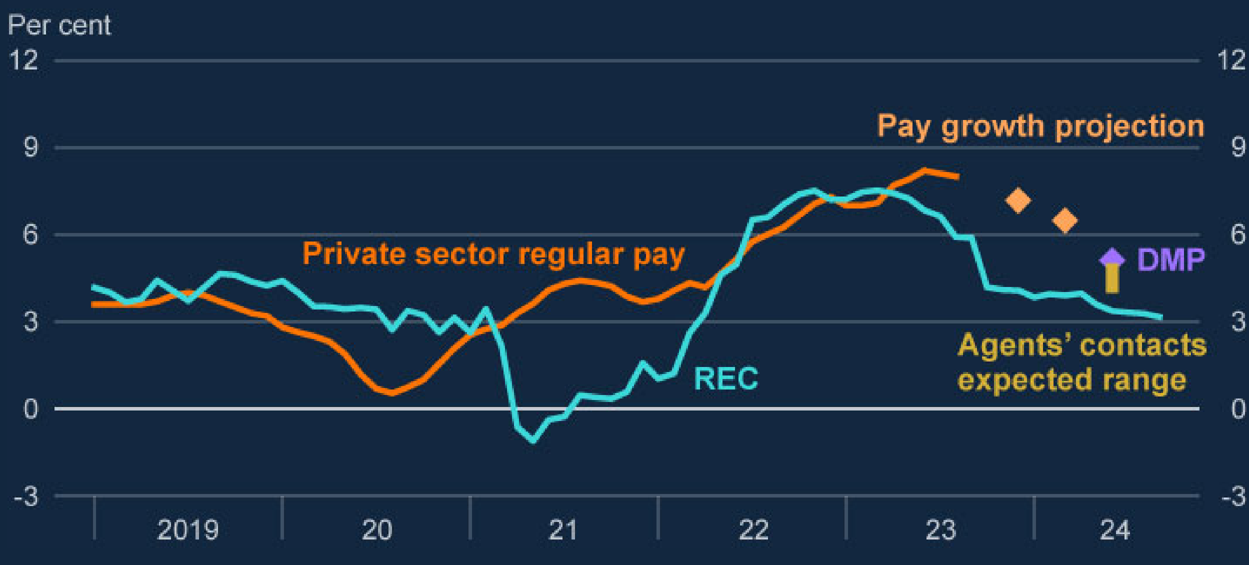
…and forward-looking indicators suggest that wage growth will fall back.

A number of forward-looking indicators suggest that nominal wage growth is likely to moderate in 2023 Q4 and in 2024. Contacts of the Bank's Agents expect settlements to fall to around 4% to 5% next year, and for there to be fewer additional payments provided to compensate for a higher cost of living. Respondents to the DMP Survey expect wage growth of 5.1% next year.

Measures of staff salaries for new hires within the KPMG/REC Report, which have in the past been a strong predictor of aggregate private sector pay growth, returned to levels close to their historical averages this year and continued to fall in September (Chart 2.15). This might indicate that aggregate pay growth is likely to return to levels consistent with the inflation target next year. However, the predictive power of these data has been less strong over recent months. Labour hoarding following a period of acute recruitment difficulties could explain the strength of pay growth for current employees relative to new hires. Changes in how frequently people move jobs might also affect the relationship between the salaries of new hires in the REC survey and the official wage data, although staff analysis suggests that the impact of this on the current outlook is small.

Chart 2.15: Forward-looking indicators suggest pay growth could slow markedly in 2024

Measures of annual wage growth (a)



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

(a) Definitions of wage growth vary between each of the measures. Private sector regular pay growth is Bank staff's estimate of underlying pay growth between January 2020 and November 2022 and ONS private sector regular pay growth otherwise. REC shows average starting salaries for permanent staff compared to the previous month. The REC index is mean-variance adjusted to ONS private sector regular pay growth over March 2001–19 and is advanced by 12 months, which coincides with the greatest correlation with private sector regular pay growth. The Agents' contacts expected range is based on early indications on pay settlements in 2024. Latest data points are September 2023 for the REC index, and the three months to August 2023 for private sector regular pay. Pay growth projections are for 2023 Q4 and 2024 Q1.

Overall, annual private sector regular pay growth is projected to fall to around 7¼% in Q4 before declining quite markedly in 2024, but the outlook remains highly uncertain.

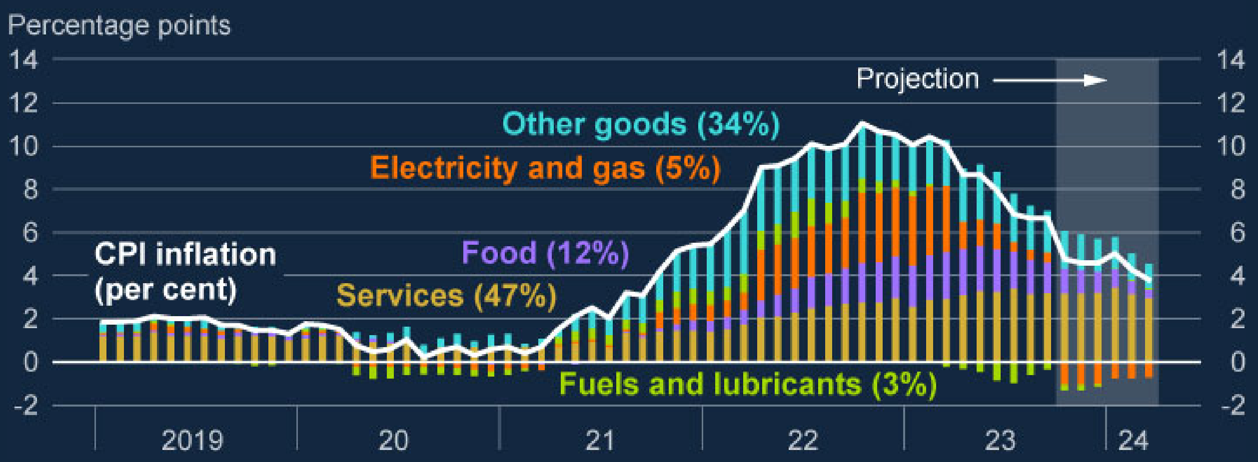
Accumulating evidence of loosening labour market conditions and the signals from leading indicators of pay growth underpin the central projection for wage growth, which falls slightly to 7¼% in Q4, before declining more substantially to around 5% by the end of 2024, predicated on the expected path for inflation. The recent pattern of upside surprises in the official wage data may point to some upside risk to this projection, whereas the REC survey continues to suggest risks to the downside.

Consumer price inflation is falling, but remains well above the 2% inflation target.

Twelve-month consumer price inflation fell to 6.8% in July before edging down further to 6.7% in August and remaining at 6.7% in September (Chart 2.16). This was 0.3 percentage points below the August Report forecast. Declines in inflation up to July had been driven largely by lower energy prices. But in August, core CPI inflation, which excludes energy, food, beverages and tobacco, fell to 6.2% and further to 6.1% in September, having been relatively stable at just under 7% in preceding months. The decline in core inflation was driven by core goods inflation, which stood at 4.7% in September, 1 percentage point below the August forecast.

Chart 2.16: Consumer price inflation has fallen since last year's peak and is projected to fall further

Contributions to CPI inflation (a)



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

(a) Figures in parentheses are CPI basket weights in 2023. Data to September 2023. Bank staff projections from October 2023 to March 2024. Fuels and lubricants estimates use Department for Energy Security and Net Zero petrol price data for October 2023 and then are based on the sterling oil futures curve.

Inflation is expected to fall markedly in October to 4.8%, largely reflecting a reduction in the Ofgem price cap.

Inflation is expected to fall to 4.8% in October and remain around that level for the rest of the year. The main driver of the expected fall in Q4 is a reduction in the Ofgem energy price cap, reflecting the decline in wholesale gas prices over the course of 2023. The typical household energy bill is going down to £1,834 annually at that point. Because the typical bill rose to £2,500 over the same period a year ago, the lower level of the cap this year will have a material impact on the annual inflation rate in 2023 Q4. Based on wholesale gas prices up to 24 October 2023, the energy price cap is projected to rise again by around £130 in 2024 Q1. This would remain well below the typical bill in the same quarter this year, so energy prices would continue to contribute negatively to the annual inflation rate.

Sterling oil prices have risen by 10% since the August Report (Section 2.1). Higher sterling oil prices feed through to petrol prices relatively quickly. Fuel prices are still expected to contribute negatively to CPI inflation in 2023 Q4, but that contribution is smaller than in the August forecast.

Food price inflation, which has a large impact on the living costs of lower-income families because it makes up a larger share of these families' budgets, remains high. The annual rate peaked at 19.1% in March and has since fallen back a little faster than expected in the August Report, to 12.1% in September. Input prices continue to ease, but will take time to transmit through the supply chain. Food price inflation is expected to fall to around 9% in 2023 Q4 and to around 5% in 2024 Q1, which remains broadly in line with the intelligence gathered from contacts in the food sector reported in Box D of the **August Report**.

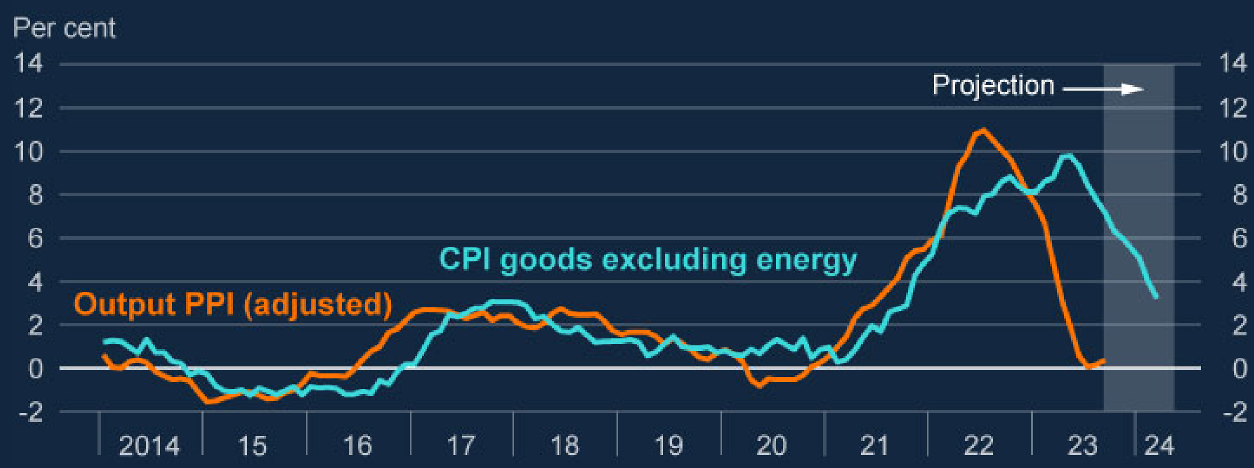
CPI inflation is expected to fall further to 4.4% in 2024 Q1. That mainly reflects lower goods price inflation, as firms are expected to pass on lower producer price inflation…

Goods price inflation has moderated more quickly than expected in the August Report. Some of the recent fall in goods price inflation has reflected developments in used car prices, which tend to be driven by idiosyncratic factors. But there was also broader downside news across a number of goods categories, with core goods inflation falling to 4.7% in September. Core goods price inflation is projected to fall further to 2.4% by March 2024, contributing to the expected reduction in headline inflation (Chart 2.16).

Easing input cost pressures are expected to continue to reduce consumer goods price inflation in the coming months. Changes in producer price inflation tend to lead changes in consumer goods price inflation by a few months. Output producer price inflation, which measures the change in the price of goods sold by UK manufacturers, has slowed significantly since its peak in mid-2022 (Chart 2.17).

Chart 2.17: Producer price inflation suggests cost pressures for goods are easing

Annual output producer price and CPI goods excluding energy inflation (a)



Sources: ONS and Bank calculations.

(a) The output PPI series is the headline ONS measure for manufacturing output producer prices. The PPI series has been mean and variance adjusted to match the corresponding CPI series between 2012 and 2019. The latest data point is September 2023 and the projection is to March 2024.

…and to a lesser extent services inflation, which, after a projected spike in January, is expected to moderate as pay growth and other input costs fall.

Alongside labour market tightness and wage growth, services CPI inflation is one of the MPC's key indicators of domestic inflationary pressure. Services inflation stood at 6.9% in September, 0.1 percentage points below the August forecast. There was some volatility in services inflation over the summer due to travel-related components such as airfares and accommodation. Excluding these components, services inflation has been more stable since April. An underlying measure of services inflation produced by Bank staff, which is determined by the comovement of price changes across services components to strip out idiosyncratic fluctuations, has begun to fall back slightly in recent months but remains high (Chart 2.18).

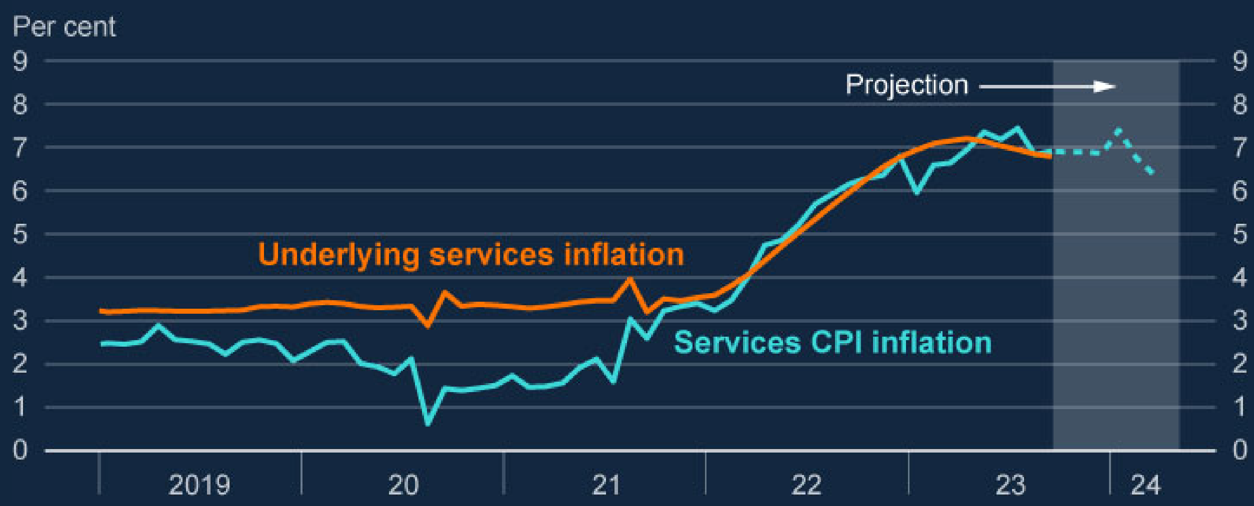
Services inflation is expected to remain broadly stable throughout 2023 Q4, before increasing temporarily in January 2024. Large and unusual falls in a number of services prices at the beginning of 2023 are unlikely to be repeated, resulting in a positive base effect.

Starting in February 2024, services inflation is expected to fall back gradually. Labour costs make up the bulk of services firms' production costs, so price pressures for services are likely to decline as wage growth is expected to moderate. Non-labour input costs have also played a role in pushing up services inflation over the past two years. In recent months, the S&P Global/CIPS UK services input and output price PMIs have continued to fall, signalling that the non-labour elements of services firms' costs are already moderating. Consistent with these data, the Bank's Agents' contacts report that, although pay pressures are still significant for consumer-facing services companies, other cost pressures are mostly easing.

Overall, services CPI inflation is projected to fall back to 6.4% by March 2024 (Chart 2.18), consistent with the expected decline in pay pressures and broader input price inflation.

Chart 2.18: A measure of underlying services inflation has started to fall back slightly

Twelve-month services inflation (a)



Sources: ONS and Bank calculations.

(a) The methodology for an aggregate underlying inflation measure is set out in **Potjagailo et al (2022)**. The underlying services inflation measure shown here focuses on comovement in the prices of services items rather than all items. The inflation rate of each item is disentangled into a common component and idiosyncratic fluctuations using a dynamic factor model. In a second step, the common components of individual services price items are aggregated into the underlying services inflation measure using the CPI item weights. The latest data are for September 2023, the projection is to March 2024.

In aggregate, firms' margins appear to have been squeezed in the past couple of years. There is some evidence to suggest that firms plan to rebuild margins.

Both domestic workers and firms have suffered real income losses following the deterioration in the UK's terms of trade, which has been driven largely by the increase in imported energy costs (**Martin and Reynolds (2023)**). Chart 3.2 shows the squeeze on real labour incomes. Meanwhile, the Bank's DMP Survey suggests that firms' margins have been more likely to fall than rise over the past year. These results are in line with recent work by **Piton et al (2023)**: UK firms' earnings in excess of all production costs have been declining since the start of 2022, as they did following sharp rises in energy prices in the past. However, the decline in profits has not been uniform across firms. While many firms have experienced declining profits, some firms with greater market power have been able to increase their margins.

Against the backdrop of past reductions in aggregate margins, there is some evidence to suggest that firms may attempt to rebuild margins as external cost pressures moderate. In the DMP Survey, more firms expect their profit margins to increase than to decrease in the coming year. But the Bank's Agents report that firms currently see limited scope for margin rebuilding through further price increases (Box D). The extent to which firms are able to improve their margins is likely to depend on the outlook for demand (Section 3).

If firms and employees seek to recoup lost incomes by pushing for higher prices and wages, the second-round effects from the increase in global energy and goods prices may take longer to unwind. These risks continue to underpin the upside risks to the MPC's inflation projection (Key judgement 3 in Section 1).

2.4: Inflation expectations

Household inflation expectations have continued to ease.

In the latest YouGov/Citigroup survey, short-term household inflation expectations remained broadly unchanged at still elevated levels, after falling back significantly from their peaks in 2022 (Chart 2.19). Medium-term inflation expectations in this survey stand close to their 2010–19 average. The distribution of inflation expectations within surveys may contain information. The share of respondents expecting annual inflation of 6% or more on average over the medium term remained broadly stable at around 16% between August and October, well below the peak of 31% in August 2022 and close to the average level over 2019.

Chart 2.19: Household inflation expectations have fallen back from their 2022 peak

Household inflation expectations (a)

Sources: Citigroup, YouGov and Bank calculations.

(a) Data are not seasonally adjusted. ‘Short-term expectations’ refers to expectations in the next 12 months and ‘medium-term expectations’ refers to expectations five to ten years ahead. The household survey asks about expected changes in prices but does not reference a specific price index. The latest data points are for October 2023.

Firms are also expecting lower inflation over the coming year, though still higher than the 2% inflation target.

In the DMP Survey, firms’ CPI expectations for the year ahead have been declining and stood at 4.6% in October, still well above the inflation target (Chart 2.20). Firms’ three year ahead CPI expectations also continued to edge down to 3.1% in October, compared to a peak of 4.8% in September 2022.

Chart 2.20: Firms' CPI inflation expectations have fallen back

Firm inflation expectations (a)

Source: DMP Survey.

(a) Data are based on responses to the question: 'What do you think the annual CPI inflation rate will be in the UK, one year from now and three years from now?'. The latest data points are for October 2023.

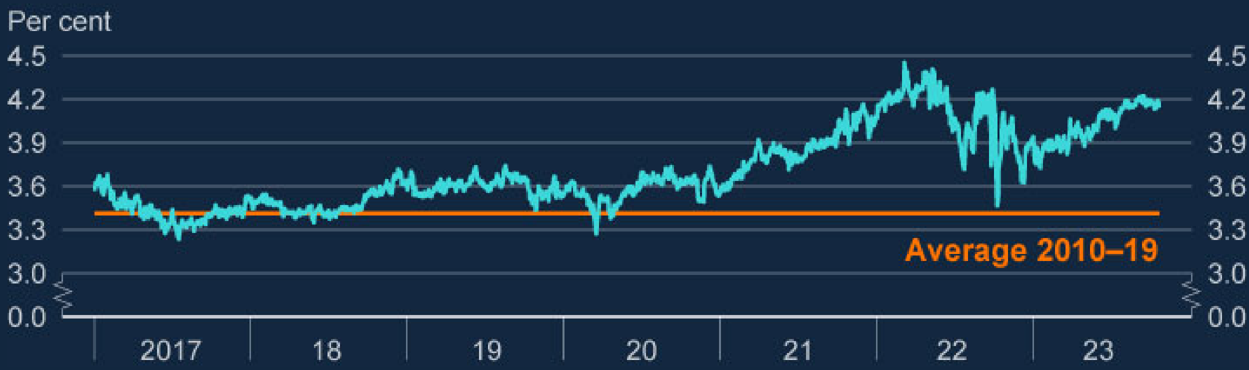
Market-based measures of inflation compensation have increased further since August.

A measure of medium-term inflation compensation in financial markets has risen over the course of the year and stands well above its average level over the previous decade, though still below its peak in the first half of 2022 (Chart 2.21). Interpreting these data is challenging because they can move for reasons unrelated to inflation expectations, for example due to illiquidity in markets and the use of these instruments in hedging pension liabilities. As this is a measure of RPI inflation compensation, any changes in the outlook for the wedge between RPI and CPI can also affect these data.

The median respondent in the November Market Participants Survey expected CPI inflation of 2.1% three years ahead, down slightly from 2.2% in August. The distribution of survey responses remained skewed to the upside.

Chart 2.21: A measure of medium-term inflation expectations in financial markets has been drifting up since the start of the year

RPI-reform adjusted measure of five-year, five-year forward inflation compensation (a)



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

(a) Market-derived inflation compensation rates for average UK RPI inflation over a five-year period starting five years into the future. It is derived by adjusting the five-year, five-year rate to account for UK RPI reform. From 2030, UK RPI will be aligned with the CPIH measure of consumer prices. At present, the wedge between the current definition of RPI and CPIH affects the unadjusted series. This measure is calculated by adding a scaled market-derived estimate of the impact of RPI reform onto the unadjusted rate. That is calculated as the difference between the closest one-year forward rates before and after the planned RPI reform date (currently the five-year, one-year rate and the seven-year, one-year rate) on a three-month daily rolling average basis, and the adjustment is applied to the five-year forward period impacted by the reform. The latest data point is 24 October 2023.

Box B: Uncertainties around official estimates of labour market activity

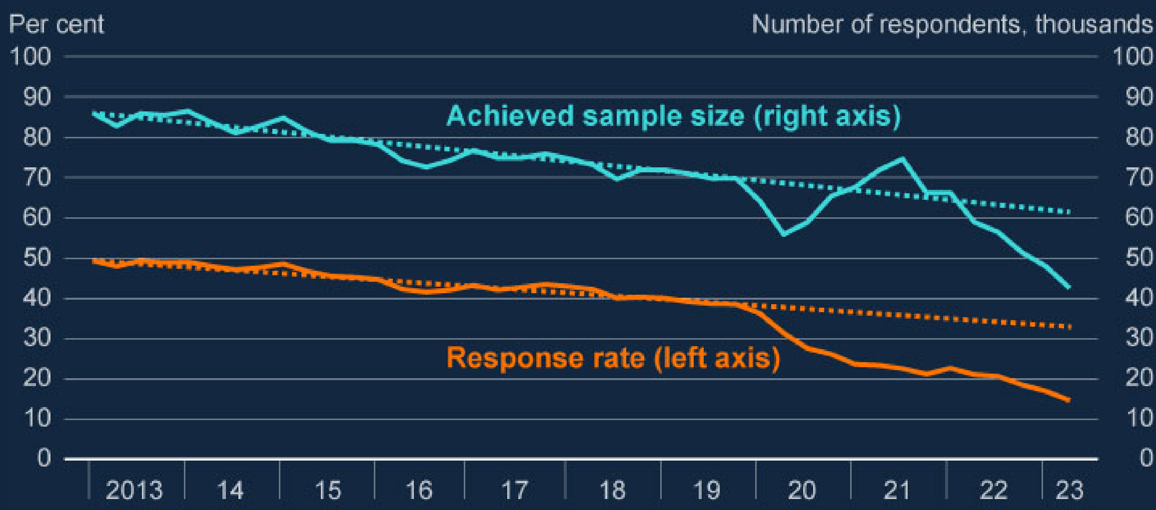
There are increased uncertainties around the headline labour market data that are based on the ONS's Labour Force Survey (LFS). A decline in response rates has resulted in the ONS temporarily pausing publication of the LFS estimates of employment, unemployment and inactivity following the June data, and replacing them with experimental estimates. In addition, the reweighting of the LFS to reflect up to date population estimates has been delayed. When this is introduced it is expected to result in revisions to the LFS back data. The MPC has for some time taken into account a wide range of data to inform its judgements on the labour market, including other official data, business surveys and intelligence from the Bank's Agents. The uncertainties surrounding the LFS data underline the importance of this approach at the moment.

There has been a material fall in the response rate to the LFS.

Response rates to the LFS have been declining (**ONS (2023)**). Although the downward trend pre-dated the pandemic, a sharp fall in response rates was observed in 2020 when social distancing measures led to the survey being conducted via phone interviews instead of face-to-face (Chart A). The ONS increased the number of households it asked to complete the survey from mid-2020 in an effort to limit the impact of non-response on the achieved sample size of the survey, although this was phased out by July 2023.

Chart A: LFS response rates and achieved sample sizes have declined notably since the pandemic

LFS response rate and achieved sample size (a)



Sources: ONS and Bank calculations.

(a) Dashed lines represent the 2013–19 trend in sample size and response rate if projected forward linearly. Data are to 2023 Q2, prior to the phasing out of the boost to the LFS sample size introduced by the ONS during the pandemic.

Response rates have deteriorated further since mid-2020. The continued deterioration might be an extension of the pre-Covid downward trend, which could reflect a shift in societal attitudes towards responding to household surveys. Similar downward trends in household survey response rates have been observed across many other advanced economies (see, for example, **Leeuw et al (2018)**).

The decline in response rates increases the risk that the LFS estimates may be statistically biased. If the fall in responses is concentrated in households that have different labour market characteristics than the average respondent, the survey will be less representative as a result. In addition, the decline in response rates has contributed to a reduction in the achieved sample size of the LFS. This means the survey is experiencing higher sampling variability than in the past, which can result in more volatile estimates from quarter to quarter.

In an effort to address some of these challenges the ONS is developing a **transformed Labour Force Survey (TLFS)**. The new estimates will be based on improved methods for collecting data, aimed at increasing the response rate, and a larger sample size. The ONS plans to transition to the TLFS estimates in March 2024.[1]

The ONS has temporarily paused the publication of LFS estimates from the June data, and replaced them with experimental estimates.

Due to concerns around the impact of the fall in the response rates on the quality of the data, the ONS has temporarily stopped publishing LFS estimates of employment, unemployment and inactivity following the June 2023 data. The ONS has announced that it plans to resume publication of its LFS estimates in December, but in the meantime it has replaced them with experimental estimates. These figures take the LFS estimates for unemployment and employment in the three months to June, and thereafter project them forward in line with the claimant count measure of unemployment and HMRC payrolls data respectively. As experimental statistics, these estimates need to be interpreted with caution (especially given both the HMRC payrolls data and the claimant count measure are themselves experimental statistics). The **Office for Statistics Regulation is undertaking a review** of these data.

LFS estimates are also based on mid-2021 population estimates, and will be revised to reflect more up to date estimates later this year.

The population weights that the ONS uses to produce the latest LFS estimates assume that the demographics of the population have not changed since June 2021. Updating for recent demographic changes will affect estimates of the rates of participation, employment and unemployment in the labour market. For example, the current LFS population weights do not account for the ageing in the population since mid-2021, and as a result older people have been progressively underweighted in the LFS estimates. As older people are more likely to be out of the labour force, this means that the estimates of the participation rate and employment rate are probably too high.

The existing population weights used in the LFS are also based on a mid-2021 assumption about the size and growth of the population. They do not therefore capture more recent information about the population, such as greater than assumed inward migration. Because the UK population is now estimated to have increased since mid-2021 by more than assumed in the LFS, the total number of people estimated to be in employment, unemployment and outside of the workforce in the UK is expected to be revised up, all else equal.

The ONS plans to incorporate updated population estimates in December, and this is expected to result in revisions to the LFS back data.

Bank staff estimates using more up to date population weights point to notable downward revisions to the employment and participation rates in mid-2022, but a smaller effect on the unemployment rate.

Bank staff estimates of the impact of using more up to date population weights are shown in Chart B. Those estimates suggest that the population reweighting would reduce the employment and participation rates in mid-2022 by around 0.4 percentage points. These estimates use the latest publicly available population estimates from January 2023, but the ONS plans to publish a further update later this month.

Chart B: Forthcoming revisions from updating population weights are expected to reduce estimates of the participation and employment rates in mid-2022

Indicative staff estimates of the impact of updating the LFS population weights (a)

Sources: ONS and Bank calculations.

(a) Indicative staff estimates are based on the ONS's January 2023 population projections. Bars represent the change between 2019 Q4 and the three months to July 2022 in the current LFS estimates versus the indicative post-revision estimates calculated by Bank staff.

The indicative staff estimates point to a limited impact on the unemployment rate in mid-2022 from the population reweighting. As vacancies are measured through a different survey, this also implies little impact on the vacancies to unemployment ratio – one of the MPC's key measures of labour market tightness.

These indicative estimates only give a snapshot of the possible impact of the reweighting in mid-2022 on the participation, employment and unemployment rates. In addition to the uncertainty over these impacts, it is possible that any future revised estimates will also reveal a change to the recent path of these labour market variables.

These increased uncertainties in the official LFS data reaffirm the importance of taking a steer from a wide range of data on labour market developments.

While there are increased uncertainties about the LFS data, the Committee's views on labour market developments are informed by a wide range of data. The MPC looks at other official data, such as the ONS Workforce Jobs and HMRC payrolls data, and wider labour market indicators, such as private sector surveys and intelligence from the Bank's Agents. In addition to the vacancies to unemployment ratio, surveys of recruitment difficulties inform the MPC's assessment of labour market tightness. The collective steer from these data sources is discussed in Sections 2.2 and 2.3.

Box C: How has Blue Book 2023 changed past estimates of UK GDP growth?

The ONS raised its estimates of GDP growth over 2020 and 2021 in its annual Blue Book revisions.

Each year the ONS updates its estimates of GDP growth in past years to reflect improvements in its methodologies and additional data. The **Blue Book 2023** revisions included large changes to estimates of GDP growth over 2020 and 2021, a time when measuring the size of the economy was particularly challenging (**ONS (2023)**). Annual GDP growth is now estimated to have been 0.7 percentage points higher in 2020 and 1.1 percentage points higher in 2021. Growth rates since then are little changed.

The latest estimates imply that UK output returned to its pre-Covid level by the end of 2021.

Following the revisions, UK GDP is now estimated to have exceeded its pre-pandemic level by 2021 Q4, rather than having remained slightly below it (Chart A). In 2023 Q2, GDP is estimated to have been 1.8% above its pre-Covid level. On current estimates, the UK's post-Covid recovery in output is now more in line with other G7 countries.

Chart A: The level of UK GDP was revised higher in Blue Book 2023

Change in level of GDP since 2019 Q4 (a)

Sources: ONS and Bank calculations.

(a) Data are to 2023 Q2.

Upward revisions to public sector output were sizable; estimates of total market sector output were little changed.

The revisions to GDP were concentrated in the public sector and, specifically, the healthcare industry where output had been particularly hard to measure during the pandemic. They reflected new data sources and measurement improvements. Revisions to overall market sector output were small. Within the market sector, upward revisions to the wholesale and retail trade industry were largely offset by downward revisions to industrial production.

These revisions do not have implications for the MPC's assessment of the balance between demand and supply over the past and hence underlying inflationary pressures.

Revisions to historic estimates of GDP are not typically judged to have implications for the balance between demand and supply and hence inflationary pressures, since inflation outturns remain the same. In addition, these particular Blue Book revisions are almost entirely accounted for by changes to public sector output and so contain little news about the balance of supply and demand in the market sector economy, which is more relevant for assessing inflationary pressures. In light of that, the MPC has judged it appropriate to revise up potential supply in line with the revisions to measured GDP, such that the balance between them over the past is unchanged.

Box D: Agents' update on business conditions

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

In line with the September Agents' update, many areas of the economy continued to report weak activity. In some areas such as housing, commercial real estate, consumer goods, business services and manufacturing, contacts suggested there had been a further softening in activity.

Employment intentions have weakened a little further, but overall remained consistent with broadly stable headcount in the coming year. Recruitment difficulties have continued to ease, although skill shortages were still a concern for some. Goods inflation is slowing more quickly than for services as input cost pressures continue to ease.

> **While still positive, nominal growth in consumer spending is weakening, in line with lower inflation. Growth in consumer spending volumes remained subdued. Spending on services appeared to be outperforming goods.**

For consumer goods, volumes have mostly been flat, including for clothing and beauty items. But they have fallen sharply over the past year for furniture, technology, and home improvement products, likely a consequence of increased spending on these during the pandemic.

Price inflation has sustained revenue growth at pubs and restaurants as the number of customers has fallen. Following a generally good summer, contacts in the hospitality sector were worried about demand falling more over the coming months than is usual for the time of year. Bookings for hotels and other tourist venues were being made later than usual reflecting greater consumer caution.

Contacts reported that households have also been cutting back the size of their entertainment and data packages and spending less on telecoms, such as ending landline contracts and upgrading mobile phones less frequently.

Overall, contacts remained pessimistic about the outlook, with most expecting weak volume growth over the coming year.

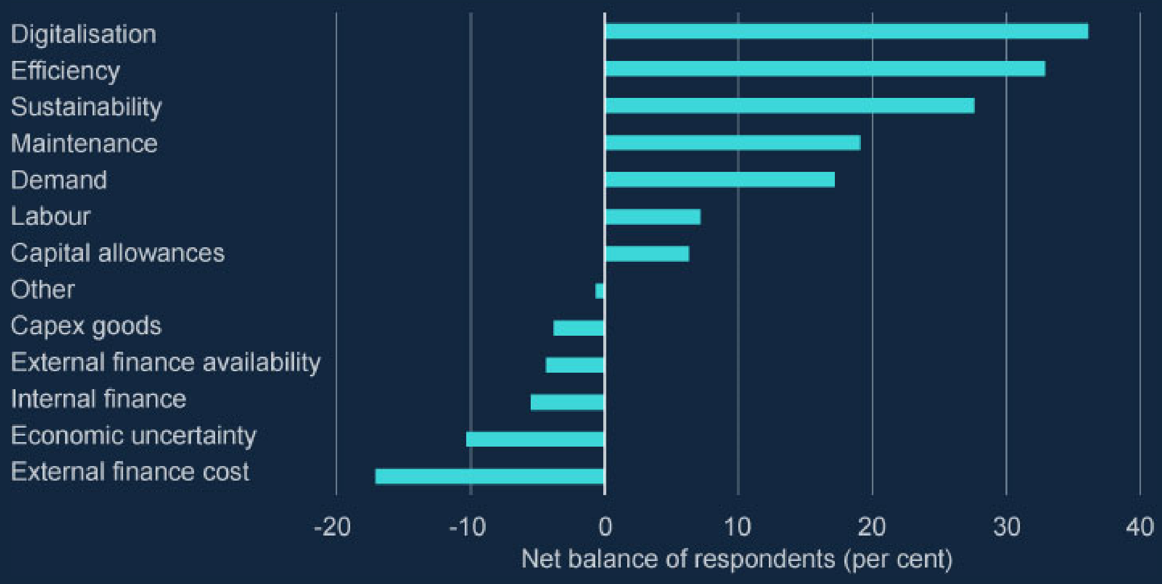
Investment growth is expected to slow slightly but remain positive next year, driven by the need to maintain and upgrade information and other technology, the pursuit of efficiencies and investment to improve sustainability.

Higher finance costs and greater economic uncertainty have led some contacts – especially those already facing margin or cash-flow pressure, or those dependent on borrowing to invest – to lower their investment intentions. Those with strong cash positions plan to continue to invest: business services firms continue to spend on information and other technology; professional service firms are most likely to refer to meaningful investment in AI technologies aimed at creating efficiencies rather than reducing headcount; consumer services are investing to maintain their service offering; while many production firms are focusing on green energy generation and other efficiency measures.

These considerations continue to shape investment intentions. Chart A summarises responses to a recent Agents' special survey on this topic. The main factors supporting investment intentions are digitalisation, efficiency, and sustainability, while the cost of external finance is the largest reported drag.

Chart A: Structural factors are motivating higher investment spending next year

Factors affecting investment over the next 12 months (a)



Source: Bank calculations.

(a) Taken from responses to the Agents' survey on investment intentions. Question: 'How are the following factors affecting your UK investment spending plans over the next 12 months compared to the past 12 months?'. Reports of 'slight' reduction/boost were given a 50% weight relative to reports of 'substantial' reduction/boost when calculating these net balances.

Goods export volume and services export value growth have slowed over the past year. Contacts cited the ongoing impact of Brexit-related trade frictions.

Manufactured goods exports volumes growth has slowed, with exports now at the same level as a year ago. Consumer goods exports volumes fell, with EU sales notably weaker. This reflected softer demand but also Brexit-related trade frictions. While demand from the US and Middle East remained robust, it has softened from China. Services exports values growth has slowed but remained positive, mostly driven by fee increases. There are near-term downside risks from weaker consumer demand and the continued impact of Brexit-related trade frictions, although contacts expected demand for aerospace, defence, and pharmaceuticals to remain robust.

Revenue growth in business services, while slightly weaker, continues to be sustained by inflation as volumes fell slightly on a year ago. Manufacturing volumes have reduced a little, and construction output continues to decline.

Revenue growth in many areas of business services has continued to be subdued. Mergers and acquisitions activity has remained weak, demand for logistics has softened with container imports down compared with last year and property service revenues have fallen, in line with declining commercial real estate transactions. Even accountancy, law and consultancy services, where demand had been holding up, were now reporting a softening as clients become more circumspect on discretionary spending. Contacts were concerned that turnover growth could soften further over the winter, although some expected demand to pick up in 2024 H1 as funding costs stabilised.

Manufacturing volumes fell slightly. This is weaker than in the Agents' September update on business conditions, when contacts reported that volumes were flat. Domestic demand has eased, with demand falling for homewares and construction products, although some sectors such as aerospace, renewables and defence, chemicals, pharmaceuticals, and energy were still seeing growing demand supported by exports. Consumer-facing manufacturers cited weakening in order books as a sign that volumes would decline over the year ahead.

Weakening demand, high costs and lower returns have led to a continued decline in construction output. Private sector activity has slowed sharply, while public sector activity has moderated. The pace of decline in construction output could increase over the winter, given uncertainty about private sector project rates of return and increasing pressure on public sector budgets.

> **The declining trends in housing demand and housing starts have intensified. Rental demand has remained strong.**

Contacts reported that higher mortgage rates and expectations of further house price falls were increasingly weighing on housing demand, with reductions of around 20% in transactions and 5% in prices having occurred relative to a year ago. Most expected broadly similar falls in prices over the year ahead. Mortgage approval numbers have declined further and were expected to continue to do so over the coming year. There was no pickup in mortgage arrears, but the credit profile of applicants has worsened owing to weaker disposable income.

Rental demand has remained strong, well in excess of supply, pushing new rents up by double digits on a year ago. One contributing factor was the higher cost of mortgage borrowing, which was making rents relatively less expensive, further stimulating rental demand.

Investors' demand for commercial real estate has softened given their perception of an increased likelihood of 'higher-for-longer' interest rates. There were isolated reports of forced sales due to increased outflows from portfolio funds held by institutional investors. Banks have started responding more firmly to breaches in loan covenants, leading to an expectation of more forced sales next year.

Credit supply has tightened for small firms, less so for large corporates. Demand for credit remains weak given high interest rates.

Larger corporates typically reported continued access to bank or non-bank finance through 2023. Contacts say banks have tightened lending supply for small businesses, with some reports of banks rejecting new loans, not rolling over debt, or imposing more onerous terms and conditions.

Demand for credit has remained weak across firms of all sizes due to higher interest rates and uncertainty about the economic outlook. This was consistent with declining bank loan books. Large corporates were issuing fewer bonds in the hope that yields would decline, and private equity firms were much less active.

Bad debts were still at normal levels, although the failure rate of the smallest companies was higher than recent years. Companies in the construction sector were faring the worst, with trade credit tightening and even some large companies getting into difficulty.

Employment intentions have softened a little further since mid-August but overall remained consistent with broadly stable headcount in the coming year. Recruitment difficulties have continued to ease, although skill shortages were still a concern for some.

Many contacts were looking to maintain employment at current levels, if they judged they were the right size to meet demand or if they were prepared to hoard labour after experience of recruiting difficulties in the past. There was a slight uptick in reports of planned headcount reductions in property and construction, although such reports remain in the minority. Some sectors such as audit, insurance, pharmaceuticals, and aerospace have continued to expand their workforces on the back of growth.

Recruitment difficulties have continued to ease for many contacts, particularly for lower-skilled roles. But recruitment remained a serious concern for contacts in particular locations and for contacts demanding skills in the finance, accountancy, IT, and engineering sectors.

Wage settlements were expected to trend down slightly over the rest of this year. Early indications for 2024 suggested that average pay increases were expected to be lower than in 2023. But those businesses that rely heavily on lower-paid workers were concerned about another sizable increase in the National Living Wage next April.

Goods inflation is slowing more quickly than for services inflation as input cost pressures continue to ease.

Contacts reported price falls for a range of key inputs, despite increases in the oil price and the recent depreciation of the pound. Manufacturers' domestic price inflation has continued to ease, with an increasing number of contacts expecting to return to a single small annual price increase in 2024 and some hoping to avoid price increases all together.

Business services price inflation has remained high, but contacts judged that it had peaked amid more caution about price rises, even in sectors such as law, accountancy, and IT where demand had been strong.

Aggregate profit margins have remained squeezed as many companies were unable to fully pass through higher costs into output prices while sales volumes were weakening. Firms saw limited scope for margin rebuilding through further price increases, with many instead focused on operational efficiency improvements.

Consumer goods price inflation has continued to ease for a broad range of categories. Food producers reported ingredient costs either stabilising or falling. Price inflation for new cars has passed its peak and was expected to moderate further. Contacts expected little change in prices for electronics, white goods, and furniture. Clothing retailers reported low single-digit inflation for their autumn and winter ranges.

Inflationary pressures for consumer services were weakening more slowly than for goods. But restaurants, pubs and hotels saw somewhat limited scope for further price increases without adverse consequences for sales volumes. Health services inflation appeared likely to remain high, with continuing cost pressures and robust demand.

3: In focus – The outlook for demand

In the face of the series of significant shocks that have hit the UK economy in recent years, demand growth has proved relatively resilient (Section 3.1). Several factors have been important in supporting that resilience, including a strong labour market, falling energy prices and fiscal support from the Government, all of which have boosted household real income (Section 3.2). There are increasing signs that the restrictive stance of monetary policy needed to combat the elevated inflation caused by the original economic shocks is now reducing demand through a range of channels (Section 3.3). The evolution of those factors which have been supporting the economy will be the key influence on how demand, and hence inflation, develops. In the MPC's central projection, demand growth remains below historical averages as higher interest rates weigh on activity, a margin of slack opens up, and inflation is brought back to target (Section 3.4 and Section 1).

3.1: Recent developments in GDP

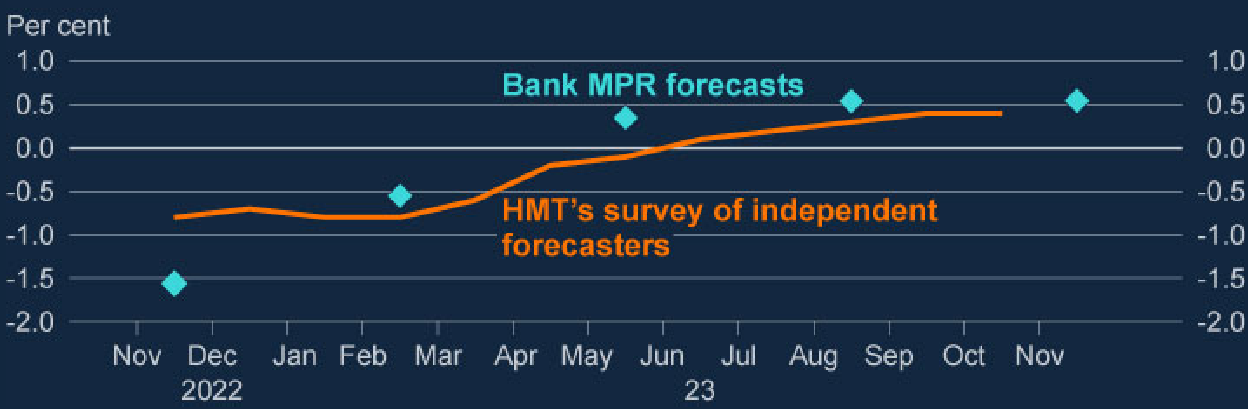
GDP growth has been stronger than previously anticipated during the first half of 2023 but recent data suggest GDP growth has started to slow.

Between the end of 2022 and August 2023, the UK economy grew by 0.6%. That represents slow growth compared to historical norms. However, in the context of the sequence of supply shocks that have hit the UK economy ((**Bailey (2023)**)), including the energy price spike following Russia's invasion of Ukraine, the economy has shown more resilience than many expected. Chart 3.1 shows the evolution of forecasts for 2023 calendar year growth, with the Bank's forecasts in aqua and the average forecast from the HM Treasury survey of independent forecasters in orange. In 2022 and early 2023, the consensus was that the economy would be in recession in 2023. Expectations are now that the economy will grow slightly across 2023. Much of this improvement reflects a recovery from the supply shocks, and in particular the fall in energy prices. However, over this time, the MPC has also adjusted the conditioning assumptions upon which its forecasts are constructed and made a series of judgements to increase its projections of demand. These judgements include the possibility of lower precautionary saving by households than previously assumed, in turn related to a lower risk of job loss given the continued strength in labour market activity (Section 1).

However, recent data releases suggest that the gradual improvement in the near-term outlook for GDP has stalled (Section 2.2). In assessing the likely evolution of the economy, a key question for the MPC is the extent to which supportive factors will remain in the coming quarters. Another key question is the extent to which higher interest rates will slow demand growth. Given the significant increase in Bank Rate since the start of this tightening cycle, the current monetary policy stance is restrictive.

Chart 3.1: Forecasters have consistently revised up expectations for 2023 GDP growth over the past year

Evolution of forecasts for 2023 calendar year GDP growth (a)



Sources: HM Treasury and Bank calculations.

(a) The independent forecasters series shows the mean of HMT's survey of independent forecasters. This includes the most recent forecast for each institution included in the survey and therefore can include forecasts made in earlier months than each survey period. Differences between independent forecasters and the Bank's projections will in part relate to different conditioning assumptions for their forecasts. The evolution of the Bank's MPR forecasts reflects a sequence of judgements made by the MPC about the likely outlook for demand (see Key judgement 1 in Section 1). The final data points refer to the October 2023 average forecast from HMT's survey of independent forecasters and projections from this Report respectively.

3.2: Key factors supporting the resilience in demand

A resilient labour market has helped support aggregate nominal household incomes...

The labour market has remained relatively resilient during the course of the energy price shock. Although the unemployment rate has risen over recent months (Section 2.2), it remains low in a historical context.

A stronger labour market supports household demand directly, through higher household labour incomes, and indirectly as a result of greater consumer confidence, partly from lower worries about job security. As shown in Chart 3.2, employment growth has contributed positively to annual real labour income growth throughout 2022 and 2023, with a peak contribution in 2023 of 1.2 percentage points in April. The tightness of the labour market is also estimated to have pushed up nominal wage growth (Chart 2.14). Although these factors have been outweighed in 2023 by the fall in energy prices and the commensurate easing in inflation, they remain an important determinant of labour incomes.

There is a range of potential explanations for this resilience in the labour market. One is 'labour hoarding': the Bank's Agents report that, in response to past heightened recruitment difficulties, some businesses have kept employment levels higher than they would have done otherwise.

…but unemployment has started to pick up.

There are some early signs that the resilience in the labour market has started to wane, suggesting the support for income growth might also lessen at some point. Some indicators of employment growth have weakened over time and the unemployment rate has risen to 4.2%, based on the ONS' experimental estimate of unemployment (Section 2.2). Since the peak in the vacancies to unemployment ratio in 2022, much of the reduction in labour demand has been reflected in falling vacancies. But the recent rise in unemployment may indicate that more of the adjustment in the future will be through job losses, or weaker employment growth, which would reduce aggregate household income. In contrast, nominal wage growth is projected to remain high and above inflation in the near term, supporting real labour income growth.

Chart 3.2: A resilient labour market and a fall in energy prices have supported an improvement in household real income growth

Annual real labour income growth (a)

Sources: ONS and Bank calculations.

(a) Contributions to real labour income growth are approximations calculated as the growth rate of the individual series and so do not exactly sum to the total. Prices are measured using the three-month average seasonally adjusted CPI index. Wages are defined as seasonally adjusted whole economy total average weekly earnings. The recent contributions from employment growth may be affected by additional uncertainties around interpreting official estimates of labour market activity (see Box B for more detail). The final data points refer to July 2023.

Real incomes have been supported by the fall in energy prices.

There has been a marked fall in wholesale gas prices since 2022 (Chart 2.4), now feeding through into retail gas and electricity bills. A falling contribution from energy prices has been the primary driver of the decline in CPI inflation this year (Section 2.3), and the drag on real incomes from rising prices (purple bars in Chart 3.2) has waned. The improvement in measures of consumer confidence, which have shown a marked rebound from near-historic lows in 2022, aligns closely with the fall in wholesale gas prices, probably reflecting households expecting lower energy bills in the future. In the most recent data, the headline GfK consumer confidence measure fell back somewhat but remains well above its low point in 2022.

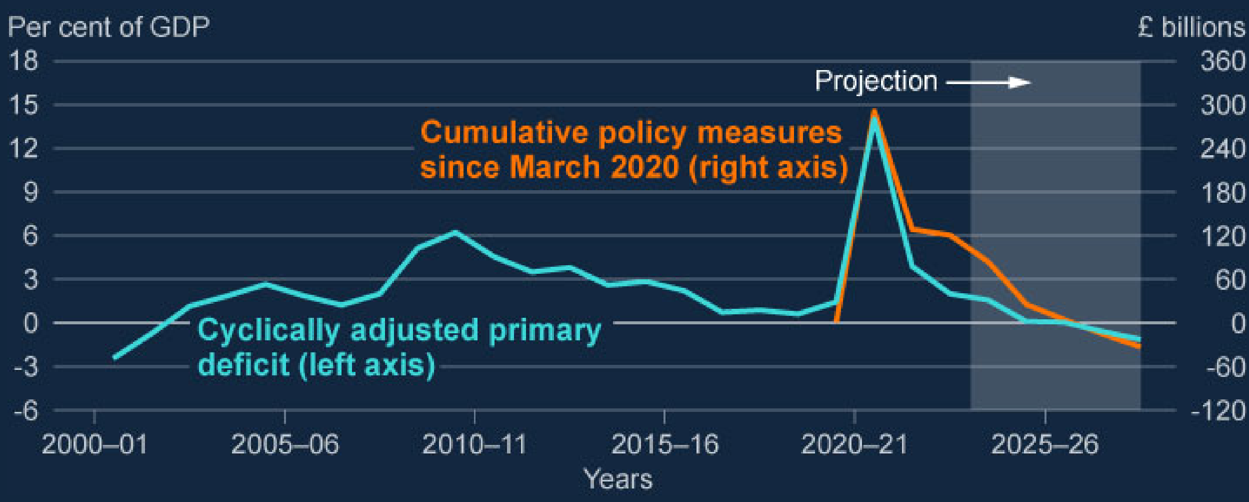
Incomes have also been supported by the Government's measures to help households weather the pandemic and energy price shock. These are now being withdrawn…

The Government provided significant fiscal support to households through the pandemic and also in response to the energy price shock. Chart 3.3 shows two ways of quantifying the level of fiscal support for the economy: the cyclically adjusted primary deficit and the cumulative borrowing impact of government policies announced since Budget 2020. Both these measures show record levels of fiscal policy support, particularly at the height of the pandemic. Some of the more recent key policies have taken the form of transfers to households, including the £400 Energy Bills Support Scheme and the Cost of Living Payments for lower-income households. These will have directly supported household demand.

Given the waning impacts of the pandemic and lower energy prices, fiscal support is being progressively withdrawn. As shown in Chart 3.3, the level of support from fiscal policy is expected to fall slightly in 2023–24 before falling more materially in subsequent years.

Chart 3.3: Support from fiscal policy is expected to fall in the coming years

Measures of fiscal support (a)



Sources: OBR and Bank calculations.

(a) Forecast as of March 2023. The cyclically adjusted primary deficit measures government expenditure excluding interest costs net of government revenue, adjusted for the economic cycle by the OBR. It is presented as a share of GDP consistent with the latest available ONS GDP data to the OBR at the time of its publication (Quarterly National Accounts published 30 June 2023). Cumulative policy measures since March 2020 is the total of the OBR estimate of the impact of government policies announced at successive fiscal events on public sector net borrowing, measured in nominal terms. The final data points refer to the 2027–28 financial year.

…although households in the NMG survey remain optimistic about their future finances.

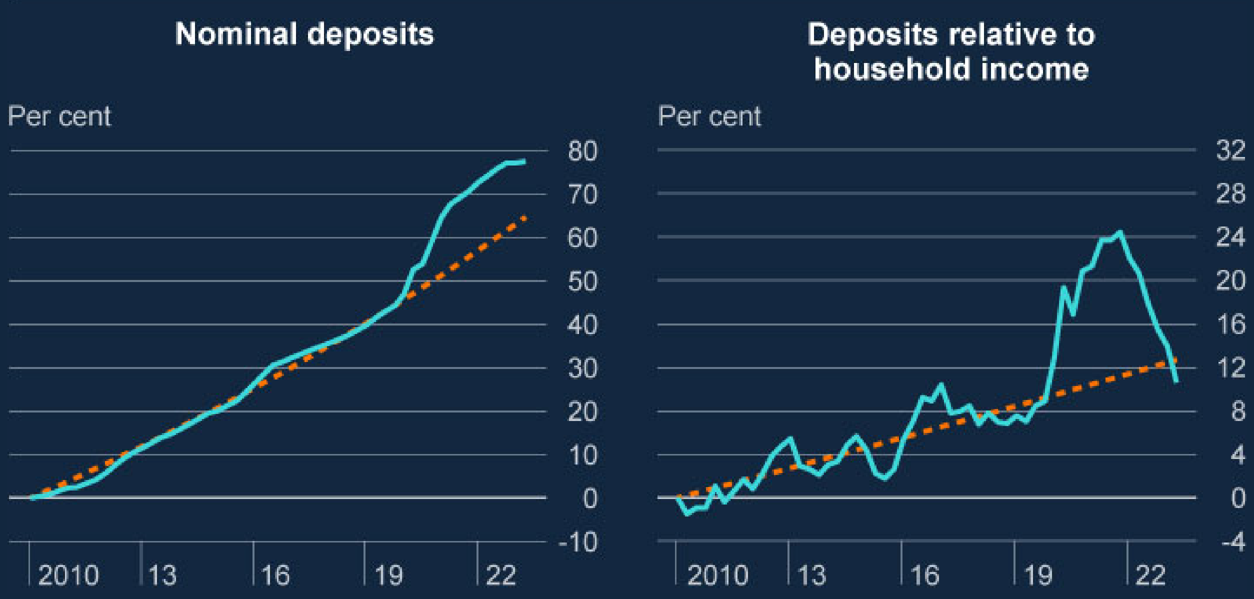
Despite the headwinds to income growth, households are relatively optimistic about their future finances. In the Bank's NMG survey, the measure of households' expectations for their own financial situation over the next year has improved substantially since 2022 and is now in line with results prior to the pandemic. Survey responses also suggest that households' perceived risk of job loss has been falling and is now at its lowest level since 2015, although expectations for the level of economy-wide unemployment have increased slightly over the past six months. The NMG's measure of household income expectations has also risen, although this largely reflects the expectation that nominal incomes will grow given high inflation.

Household saving decisions will also affect the demand outlook; there is some evidence to suggest that households have been saving less recently.

During the pandemic, household consumption fell by more than income as households were less able to spend on services, which meant that in aggregate households built up additional savings. Much of these additional savings took the form of bank deposits. As shown on the left of Chart 3.4, the total stock of household deposits rose materially, peaking around 10% higher than its previous trend in 2022 Q1. A similar pattern has been observed across advanced economies (**IMF (2023)**).

Chart 3.4: In aggregate, households built up additional savings during the pandemic

Household deposits growth since 2010 (a)



Sources: ONS and Bank calculations.

(a) The dashed orange line shows a simple trend growth path based on average growth between 2010 and 2019. Household income is defined as nominal post-tax household and non-profit institutions serving households disposable income. The final data point refers to 2023 Q2.

There is some evidence that households are now saving less out of their current income, potentially partly reflecting some households having built up an additional savings buffer. The stock of deposits, relative to trend, has fallen back a little since its peak. And as Chart 3.5 shows, two thirds of households who have reported changed saving habits in the NMG survey reported saving less than usual over the past six months.

Chart 3.5: Fewer households are expecting to save less than usual in the next six months than was the case over the past six months

Share of households reporting changes in their rate of saving (a)

Sources: NMG Consulting and Bank calculations.

(a) Results show responses to the survey question: 'As a result of any changes in income or spending, would you say that your household has saved more, less, or the same over the last six months compared with how much you usually save?'. Respondents who indicated having a different saving pattern to normal were asked a follow-up question. If they saved less than usual, they were asked if that would continue. And if they saved more than usual, they were asked if that would continue. Respondents saving around their usual rate over the past six months are excluded from the chart. The survey results were collected between 30 August and 19 September.

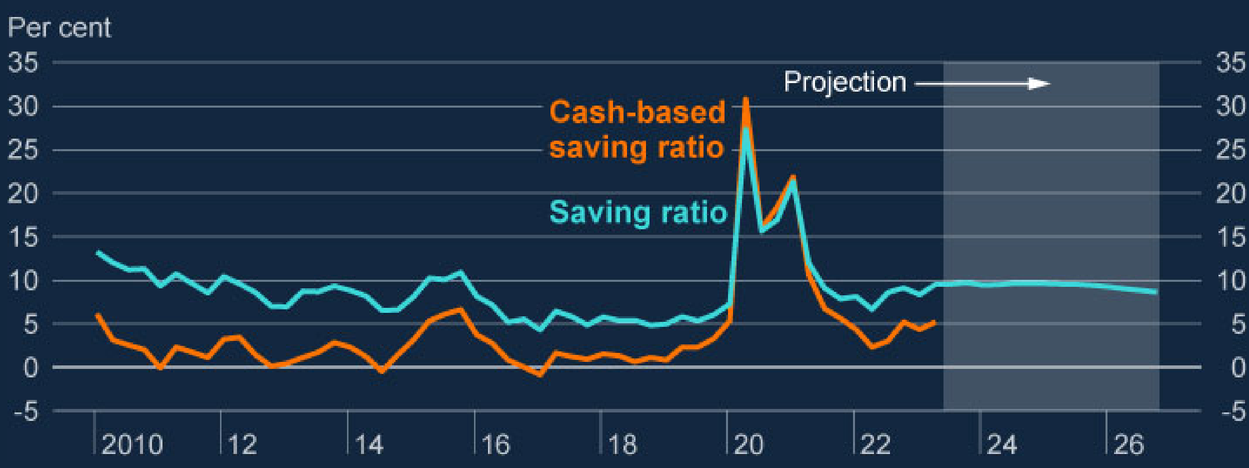
The ONS measure of the aggregate saving rate still remains higher than before the pandemic, matched by a similar trend in the cash-based saving rate (Chart 3.6). The difference between the NMG survey, which suggests households are saving less, and the aggregate ONS data may reflect differences in behaviour across the savings and income distribution. The distribution in household savings in the UK is highly skewed (see, for example, **Broome and Leslie (2022)**). This means that behaviour at the top of the distribution has a much larger impact on the aggregate saving rate.

Evidence from the NMG survey shows that, on average, the highest income households have been much more likely to increase their savings levels compared to a year ago. Within the highest income decile, the share of respondents who increased their savings over the past year is 25 percentage points higher than those who have reduced their savings. In contrast, for the bottom half of the income distribution, respondents on average report having fewer savings than a year ago.

This distributional pattern is important because household behaviour is likely to vary across the distribution, which can shape the aggregate demand outlook. For example, households at the top of the savings distribution are likely to be less responsive to changes in broader economic trends, such as the weakening in the labour market. And higher wealth and income households also make up a disproportionate share of consumption: in 2021–22, the tenth of households with the highest income made up around a fifth of household expenditure.

Chart 3.6: The aggregate saving rate is expected to be broadly unchanged over the next three years

Aggregate saving ratio (a)



Sources: ONS and Bank calculations.

(a) The cash-based savings ratio excludes transactions which are imputed and unobserved by households, for example the imputed value gained by owner-occupiers from living in their home. The final outturn data is for 2023 Q2 and the final forecast value is for 2026 Q4.

There are uncertainties around whether households can support consumption by running down savings or saving less out of their current income in the future. The right panel in Chart 3.4 shows that when savings are considered relative to income, the above-trend savings built up during the pandemic have been fully eroded. If households aim to maintain a stock of savings in line with incomes, they may not want to draw down savings any further. In terms of saving out of current income, the aggregate saving rate is projected to remain fairly flat over the MPC's forecast period, as unemployment increases.

Indeed, Chart 3.5 shows that among households who have changed their saving habits over the past six months, the share of households who are planning to save less than usual falls from two thirds to a half or under.

Other ways in which households can maintain their spending include borrowing and raising hours worked. And there is some evidence more households are using credit to support consumption. Data from the ONS Opinions and Lifestyle Survey show that the share of people using credit to cope with high inflation has risen from 11% in early 2022 to 16% in the most recent data. However, overall growth in lending in the economy has slowed significantly; for households this has been driven by a slowdown in mortgage lending (Section 2.1) outweighing continued growth in consumer credit. There is also evidence from the latest NMG survey that some households will support consumption by changing their working arrangements: of those households who are expecting to see their real incomes fall but plan to cut consumption by less than the fall in their income, 17% plan to fund that gap by working overtime and 8% plan to move to a better paying job.

Overall, real labour income is projected to grow modestly over the forecast period, the aggregate saving rate is projected to remain broadly unchanged, and consumption growth is projected to be weak.

Real post-tax household labour income is projected to grow modestly over the forecast period. There is uncertainty around how household saving behaviour will evolve over the coming years. Despite a still elevated stock of nominal household deposits, evidence from both the NMG survey and the likely gradual rise in the unemployment rate point towards households avoiding running down savings where possible. Therefore, the household saving ratio is expected to remain broadly unchanged over the MPC's forecast period (Chart 3.6). The relatively slow growth in income means that consumption growth is expected to be weak throughout the forecast period: calendar-year household spending is expected to be flat in 2024, and to rise by ½% in 2025 and by just over 1% in 2026 (Section 1).

3.3: The impact of higher interest rates on demand

Higher interest rates are expected to reduce demand to an increasing extent.

In order to bring inflation back to target, the MPC has raised Bank Rate significantly since the start of this tightening cycle and now judges that the current monetary policy stance is restrictive (Section 1). There are increasing signs of the impact of tighter monetary policy in the labour market and in momentum in the real economy more generally.

The largest component of lower demand from higher interest rates is estimated to come from household consumption, in part because consumption makes up around 60% of total GDP. The effects of higher rates on housing investment, business investment and the exchange rate are all also important for the overall impact on demand. The following sections present evidence of the impact that rate rises are having on the economy through each of these channels so far.

Overall, the impact of higher interest rates on GDP is expected to materialise with a significant lag: in the November projections, it takes until 2025 for the GDP impact to be close to fully felt. Based on the average relationships over the past between Bank Rate, other financial instruments and economic activity, Bank staff estimate that more than half of the impact on the level of GDP is still to come through, although there is significant uncertainty around that estimate. The impact is likely to be felt more quickly on housing investment and more slowly on consumption.

There are a wide range of factors, some of which change over time, that are likely to affect the impact that interest rates have on the economy. For example, as set out in **Mann (2023)**, financial market conditions, the level of interest rates prior to initial rate rises, and the evolution of real rates have the potential to affect the pass-through of rate rises to the economy. The structure of the economy may itself also affect monetary policy transmission, such as the value and distribution of assets and loans.

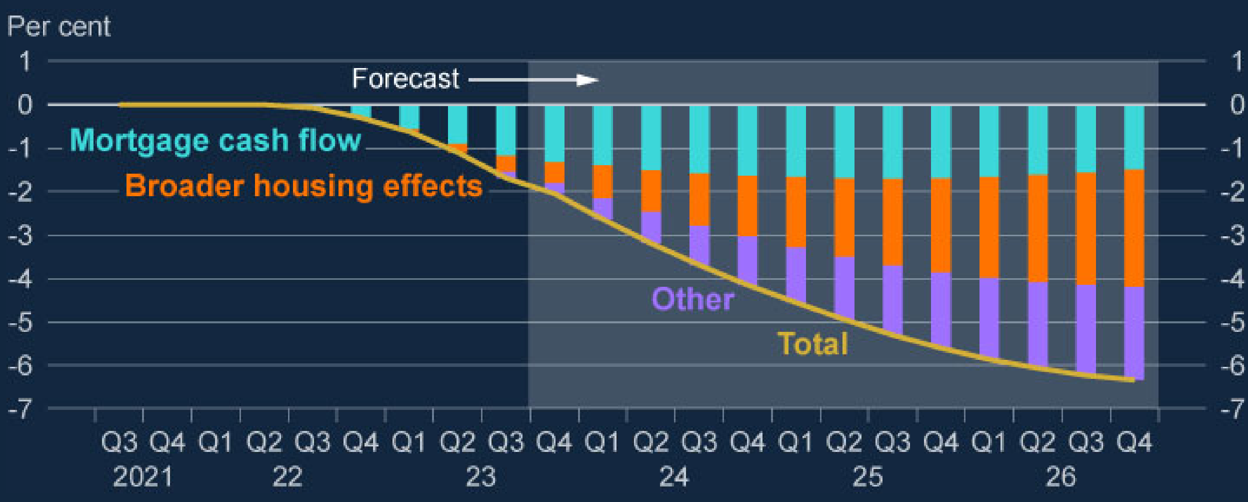
Consumption

Higher interest rates reduce household consumption through a range of channels.

Chart 3.7 presents an estimate of the impact of higher interest rates since August 2021 on the level of household consumption, both so far and into the future. The total effect is split into broad categories that show the relative size of some of the channels of monetary policy transmission. The mortgage cash-flow channel captures the direct impact of changes in household mortgage costs. The broader housing channel represents the impact of changes in the value of housing. This includes, among other effects, changes in the available collateral against which households can borrow and effects on households' saving behaviour. Other channels are captured in the purple bars. This includes a range of mechanisms such as the impact of interest rates on financial wealth, and 'second-round' effects in which a reduction in demand then leads to households cutting consumption as the wider economy weakens.

Chart 3.7: Increases in interest rates are expected to continue to reduce consumption

Estimated impact of changes in OIS yield curve since August 2021 on the level of consumption (a)



(a) OIS rates are the overnight index swap rates and represent market expectations for Bank Rate. Data up to 24 October 2023 are included. Estimates show the output from the standard treatment of the impact of changes in Bank Rate and Bank Rate expectations in the Bank's forecasting models. The consumption effects of the estimated impact of changes in the OIS curve on sterling exchange rates have been excluded. Both the overall total impact and the individual channel estimates are uncertain and could be higher or lower than presented here. The 'Mortgage cash flow' bars include some effect from intertemporal substitution where higher interest rates shift incentives to consume later than otherwise would be the case. The 'Other' bars show the net effect of changes in Bank Rate excluding the direct mortgage cash-flow channel, intertemporal substitution and broader housing effects.

Higher interest rates reduce household consumption via higher mortgage costs, even though aggregate household incomes have increased.

Changes in Bank Rate and future interest rate expectations pass-through to changes in household deposit and loan rates over time. As set out in Section 2.1, pass-through to rates on new loans has been broadly in line with developments in the relevant reference rates. In contrast, pass-through to some savings rates has tended to be somewhat slower.

Nevertheless, the direct cash-flow effects of changes in interest rates have increased average household incomes. This is accounted for by two key factors. First, the stock of household savings exceeds the stock of mortgages: the outstanding value of mortgages is a little over £1.5 trillion compared to close to £1.7 trillion in household deposits. That means for an equivalent change in interest rates the impact on interest income is greater than the impact on mortgage costs. And second, as set out in the **May 2023 Report**, over four fifths of mortgages are on fixed rates. This means changes in interest rates do not immediately affect payments on the majority of mortgages, but rather only when those mortgages are refinanced.

Despite this, the reduction in consumption from rising mortgage costs is expected to outweigh the boost to consumption from higher savings income. In general, changes in income do not affect consumption one-for-one. Instead, they depend on households' marginal propensity to consume. This measures the responsiveness of consumption to a given change in income. Estimates of marginal propensities to consume vary significantly over a number of different dimensions. Analysis suggests that a household's marginal propensity to consume will be lower, meaning consumption changes less in response to a given income change, if the income change is positive, the household has a high income and if the household is not liquidity constrained (see, for example, **Christelis et al (2017)** and **Albuquerque and Green (2022)**). Households with positive net savings are more likely to meet all of these conditions compared to households with large loans. This means that households with large savings are likely to increase consumption relatively little in response to rising savings incomes, but those with mortgages and other loans will reduce consumption materially in response to higher loan costs. The net result is for demand to fall despite the net aggregate increase in household income.

The NMG survey also suggests that the overall direct effects of interest rates on household cash flows will reduce consumption. As Chart 3.8 shows, mortgagor households are far more likely to report a negative effect on household finances from interest rates than the equivalent share of saver households who report a positive impact from higher interest rates.

The consumption effects from higher mortgage payments are expected to build over time (aqua bars in Chart 3.7). This reflects the large number of people on fixed-rate mortgages who have yet to experience an increase in mortgage costs (Box B in the **May 2023 Report**). However, the aggregate reduction in consumption is likely to materialise somewhat faster than the realised increase in mortgage costs. This is because it is likely that those with fixed-rate mortgages coming to an end will know that their mortgage costs are going to increase and adjust consumption in advance. The Bank's NMG survey shows that just over 30% of mortgagors who are yet to reach the end of their fixed-rate loan have already spent less as a result. And only around two fifths of these mortgagors expect to take no action in the next year as a result of the future increase in mortgage costs.

Chart 3.8: More borrower households report a negative impact on their finances from higher interest rates than saver households

Net balance of households reporting a positive versus negative impact of higher interest rates on their finances (a)

Sources: NMG Consulting and Bank calculations.

(a) Results are based on responses to the following questions: 'What impact has this rise in interest rates had on your household finances in the last twelve months?' and 'What impact do you expect the rise in interest rates to have on your household finances in the next twelve months?'. Mortgagor and renter households are restricted to those who do not have positive net savings. The net savers group includes all housing tenures. The survey results were collected between 30 August and 19 September.

Higher interest rates weigh on consumption via the housing market, for example from collateral and precautionary saving effects…

Higher interest rates are typically associated with lower house prices, which can have knock-on effects on consumption, largely via collateral effects.

Nominal house price falls have been relatively muted over the past year. Chart 3.9 shows a range of measures of house prices since February 2020. It shows that during the pandemic period and its immediate aftermath, house price inflation was rapid: the official ONS measure of house prices indicates that prices rose by around 25% between February 2020 and the end of 2022. Since then, the official measure has indicated broadly flat prices, although other more forward-looking measures suggest prices might have fallen somewhat. There is some evidence that the divergence between these series is partly due to cash-buyer transactions, which are captured in the ONS data but not in data from mortgage lenders. The proportion of cash-buyer transactions has been elevated but has now fallen back, so the divergence in price indices may shrink in coming months.

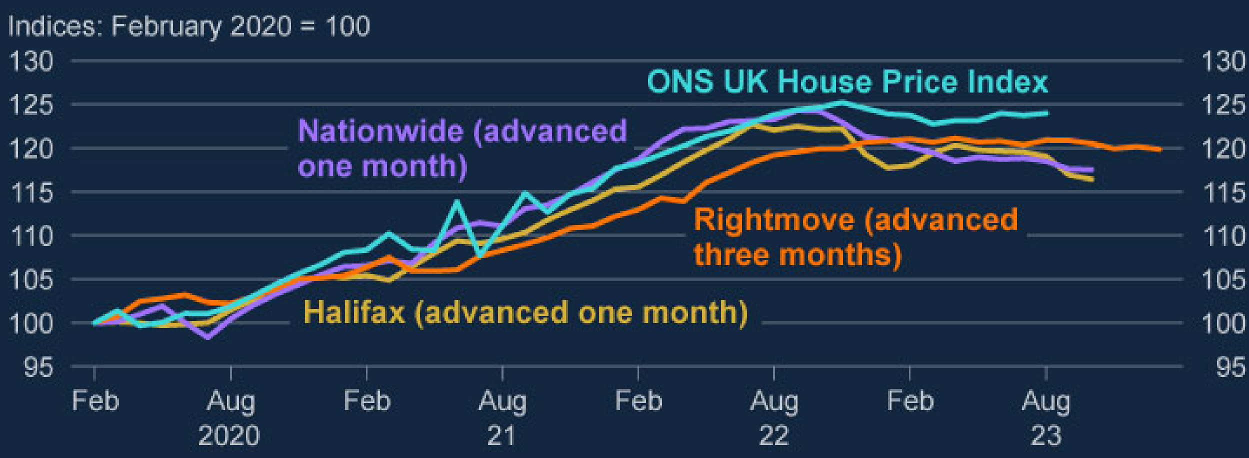
In real terms, after taking account of inflation, house prices have fallen by much more than the nominal change. Based on the official ONS measure, real house prices have fallen by around 7% since they peaked in January 2022.

Lower house prices could affect household consumption in two main ways: through direct wealth effects and through the availability of collateral for loans. Evidence suggests that, on average, direct effects are not large (**Barrell et al (2015)**). This is because, while property-owning households cut consumption when they experience a fall in their housing wealth, these effects on aggregate consumption are relatively small. Indeed, they may be reduced somewhat by an opposite effect in which lower house prices represent an effective boost in wealth for future potential buyers. To the extent to which there are small direct effects from changes in wealth values, evidence suggests this relates to an increase in precautionary saving. The latest NMG survey indicates that some households are reporting planning to save more in the coming months in response to lower house prices, although the numbers were small. Bank analysis suggests that the collateral channel, in which falling house prices reduce households' available assets for borrowing, is more important.

Together, the impact of interest rates via broader housing market effects is estimated to grow over time. The reduction in the level of consumption from these effects by 2023 Q3 is estimated to be just under ½%. However, as asset prices and households continue to adjust, that impact is likely to increase. Bank staff project that the overall reduction in consumption from these effects will grow to over 2% by the end of 2026. These estimates are uncertain and evidence suggests that the relationship between house prices and consumption can vary over time (**Benito et al (2006)**).

Chart 3.9: Some measures of nominal house prices have fallen somewhat in recent months

House price indices (a)



Sources: Nationwide, ONS, Refinitiv Eikon from LSEG, Rightmove.co.uk, S&P Global/Halifax and Bank calculations.

(a) The final data point for the ONS UK House Price Index is August 2023. Halifax, Nationwide and Rightmove data are advanced to reflect the respective timing of each data source in the house-buying process.

…and also reduce financial wealth, although the impact on consumption is estimated to be smaller.

Interest rate rises will also reduce non-housing asset prices. Indeed, net financial wealth relative to household incomes fell materially in 2022 despite no reduction in nominal household deposits (**Broadbent (2022)**). However, changes in household financial wealth tend to have less overall impact on demand because most households do not own significant non-housing and non-pension wealth. The effect can be important for those households at the top of the wealth distribution where, prior to the pandemic, the richest tenth of households had 17% of their total net wealth in financial assets. The consumption effect of reductions in the value of financial wealth are captured within the purple bars in Chart 3.7.

Renters are also affected by the impact of interest rates on the housing sector.

Although not directly affected by rising interest rates, households in the rental sector may also face increased housing costs, leading to further reductions in consumer demand. Specifically, rising interest rates increase costs for buy-to-let (BTL) landlords with a mortgage and reduce their returns through lower house prices. Landlords may try to pass on their costs through rent increases. In the long term, rent rises will be driven by household income and housing supply growth. However, given information asymmetries, moving costs, and other frictions within the rental market, landlords may temporarily have market power to raise rents. Landlords may also choose to sell their property, and there is some evidence that recent market exit by landlords has caused a degree of shrinkage of the private rented sector. Evidence from the Bank's Agents suggests some smaller BTL investors have left the market due to regulatory changes (the scale of selling in the BTL sector is discussed in **Bank of England (2023)**).

Together, these effects appear to be contributing to rapid increases in rents. The CPI measure of rents rose by 6.4% over the year to 2023 Q3 – the fastest pace since 1994. This measure is also a lagging indicator of the potential impact of interest rate rises on rents as it measures rent increases across all rental properties rather than the increases faced by those moving home. Estimates from Rightmove suggest that average new rents rose by 10% over the year to 2023 Q3. Most of this rapid increase in rents will reflect high nominal income growth during the period of high inflation. But higher rents from other factors may cause households to cut back on other forms of consumption, reducing demand in the wider economy. More broadly, renter households who are net borrowers report similar impacts of higher interest rates on their finances as mortgagor households (Chart 3.8).

Housing investment

The impacts of interest rates on the housing market also reduce housing investment, for example by reducing the number of housing transactions.

Housing investment is likely to be reduced by higher interest rates. This form of investment makes up only around 5% of overall GDP but is one of the most variable components, meaning that it can have an outsized effect on aggregate growth over the business cycle. For example, during the 2008 financial crisis, falls in housing investment accounted for close to a quarter of the overall fall in GDP. This means that the impact of interest rates on housing investment is particularly important for the transmission of monetary policy.

As shown in Chart 3.10, the ONS splits housing investment into three main categories: investment in new dwellings; improvements, repair and maintenance of existing dwellings; and transfer costs, which include many of the costs of moving home such as legal fees. Each of these can be affected by interest rates.

Higher interest rates will result in a lower real return on building new homes because it will reduce the expected future selling price. It will therefore encourage housing developers to reduce investment, and indeed this is what has happened over the past year (green bars in Chart 3.10). Most indicators of new construction are consistent with a continued drag from interest rates on this part of housing investment.

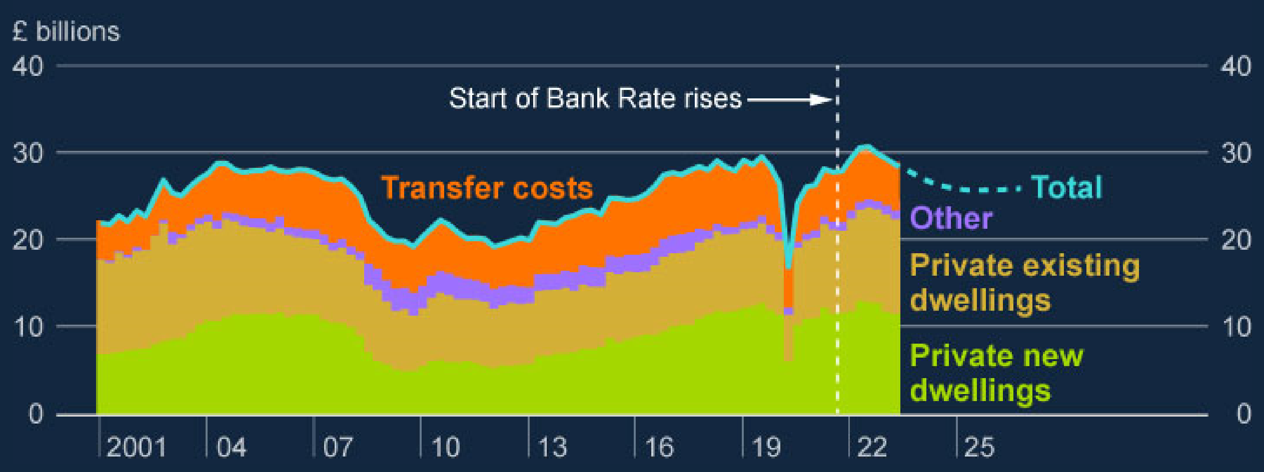
Higher interest rates have contributed to a reduction in housing transactions by reducing housing demand. The reduction in housing transactions directly reduces total transfer costs (orange bars in Chart 3.10), which make up around a fifth of total housing investment. Mortgage approvals for house purchases, a key part of housing transactions, have averaged below 50,000 per month in 2023. This is the lowest sustained level since the aftermath of the financial crisis in 2008–09.

The connection between higher interest rates, lower housing transactions and investment in existing dwellings is less clear. Prior to the pandemic, investment in existing dwellings had a positive correlation with housing transactions. Part of that may reflect people choosing to make investments in homes when they move. However, the relationship between transactions and investment in existing dwellings has weakened since then, potentially reflecting changes in household preferences after the pandemic. Investment in existing dwellings (gold bars in Chart 3.10) is yet to fall.

Overall, housing investment has fallen by 6.4% in the year to 2023 Q2, reflecting the falls in new dwellings investment and transfer costs. Housing investment is projected to fall by a further 9.4% by the end of 2026.

Chart 3.10: Housing investment has fallen since early 2022, with lower investment in new dwellings and lower transfer costs the key drivers

Real housing investment (a)



Sources: ONS and Bank calculations.

(a) Dashed line shows the latest Bank forecast for total real housing investment. Private existing dwellings investment captures improvements, repair and maintenance of existing dwellings. The other category mostly comprises dwelling investment in existing and new dwellings for non-financial public corporations. The total is calculated as the sum of the individual components. The final data outturns refer to 2023 Q2 and the final forecast period is 2026 Q4.

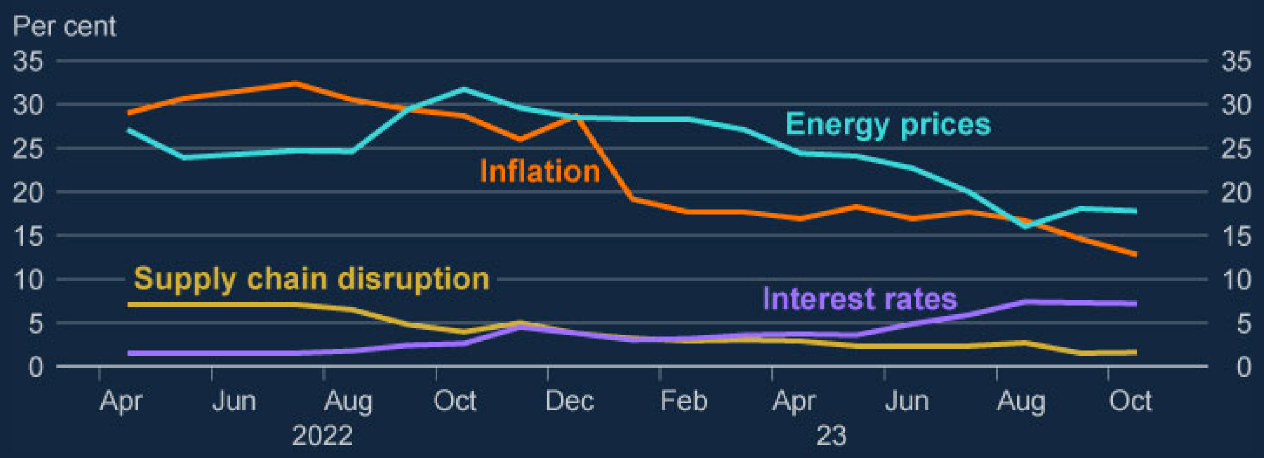
Business investment

Businesses report that interest rates are an increasingly important concern…

Interest rate rises impact businesses through many of the same mechanisms laid out above, including increased loan costs for those with debt and reduced assets available for collateral. There is evidence that the increase in interest rates so far is becoming more salient for businesses. Chart 3.11 shows the share of businesses reporting various issues as the primary concern for their business. High inflation and energy prices have consistently ranked as the main concerns. The share of businesses most concerned about interest rates is small but it has risen, up from close to zero in much of 2022 to 7% of businesses in October 2023.

Chart 3.11: Concerns around interest rates are rising but remain below other factors

Proportion of businesses reporting select issues as the main concern for the business (a)



Sources: ONS and Bank calculations.

(a) Results are based on responses to the question: 'Which of the following, if any, will be the main concern for your business?' for the following month. Some months' data have two results, where the survey has asked for that month in more than one wave. Where that is the case, the results have been averaged. Results are weighted to match the count of all businesses with 10 or more employees. The final data points refer to October 2023.

…and that concern is reflected in expected business investment growth.

Rising interest rates are likely to contribute to a reduction in business investment growth. Evidence from the Decision Maker Panel (DMP) from January 2023 suggested that interest rates were expected to reduce business investment by 8% on average over the following year. This effect was driven by only a third of businesses, as many businesses do not have debt and may not be affected by interest rate changes directly, or do not make investments. Despite this, some firms without debt expected to cut their investment as a result of higher interest rates. This suggests some of the estimated impact on investment is potentially capturing second-round effects of reduced demand in the economy limiting the need for additional investment.

Headline business investment growth in 2023 H1 has been strong: rising 4.1% over 2023 Q2 alone and 9.2% compared to 2022 Q2. However, this may not provide a clear steer on the effect of interest rates due to erratic factors affecting the data. The **ONS (2023)** report that strong investment growth in 2023 Q1 was likely affected by the end of the

Government's temporary additional tax relief on business investment. And the strong growth in Q2 reflected transport investment which tends to be volatile. Indeed, the **ONS (2023)** report that acquisition of new aircraft was a large contributor to the quarterly figure.

In the latest DMP, businesses in 2023 Q2 expected nominal capital expenditure to grow by an average rate of 2.7% over the coming year, down from a 6.1% expected increase in 2023 Q1. A wide range of factors influences businesses' investment decisions; see Box D for evidence on these from the Bank's Agents. Real business investment is projected to fall by just over 1% in 2024 and to be broadly flat in 2025, before increasing by 2% in 2026 (Section 1).

The exchange rate channel

Increasing interest rates across countries have limited the impact of the exchange rate channel on UK demand growth.

Increases in UK interest rates relative to other countries' rates would, all else equal, cause the pound to appreciate. An exchange rate appreciation makes imports cheaper and exports more expensive. Cheaper imports reduce UK inflation directly, because UK households consume imported products, and indirectly, as imported goods and services are used by firms in supply chains. There are also effects on UK activity through falling net trade as UK exports become less competitive globally.

The exchange rate channel of monetary policy is particularly important for the UK compared to other advanced economies because a high share of UK economic activity involves trade with countries using different currencies.

Given most advanced economies have been raising rates at the same time as the UK, the value of the pound has not appreciated since rate rises began. That suggests that, other things equal, the impact on demand growth from monetary policy induced changes in the exchange rate has been relatively limited to date. That said, had Bank Rate been kept at the post-pandemic low, sterling might well have depreciated materially, leading to additional inflation. Moreover, rate rises abroad have reduced demand in those countries with a consequent reduction in demand for UK exports to those countries.

3.4: Conclusion

In the MPC's central projection, demand growth remains weak by historical standards. A margin of slack opens up which helps to bring inflation back to the 2% target.

As set out above, income growth, saving behaviour, and the impact of higher Bank Rate are key factors affecting demand in the economy at the moment. In the MPC's central projection, GDP growth stays below historical averages over the forecast period. This reflects the restrictive stance of monetary policy, which weighs to an increasing extent on the level of demand, although the impact on quarterly GDP growth is currently around its peak. A margin of slack opens up in the economy, which helps to bring inflation back to the 2% target. The projection for demand, and the risks around it, are discussed in more detail in Key judgement 1 in Section 1.

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 20 October and are summarised in Chart A. These are compared with the MPC's modal projections, which are conditioned on a range of assumptions (Section 1.1) that may differ from those made by external forecasters.

On average, respondents expected GDP to rise by 0.6% in the four quarters to 2024 Q4 (left panel, Chart A). Responses ranged from -0.5% to 2.2%. Four-quarter GDP growth was then expected to rise, on average, to 1.4% in 2025 Q4 and remain at 1.4% in 2026 Q4. These forecasts are higher than the MPC's modal projections for 2025 Q4 and 2026 Q4 of 0.4% and 1.1% respectively.

External forecasters expected an unemployment rate of 4.8% in 2024 Q4, higher than the MPC's projection of 4.7% (middle panel, Chart A). The average external forecast then falls to 4.6% for 2025 Q4 and 2026 Q4. By comparison, in the MPC's projection, the unemployment rate increases to 5.0% in 2025 Q4 rising to 5.1% in 2026 Q4.

CPI inflation was expected to fall on average, to 2.4% in 2024 Q4, a slightly faster decline than the MPC's projection of 3.1% (right panel, Chart A). The average forecasts for 2025 Q4 and 2026 Q4 were broadly in line with the 2% target at 2.1% for both periods, a little above the MPC's modal projections at 1.9% and 1.5%.

Chart A: At the three-year horizon, external forecasters expected four-quarter GDP growth to be 1.4%, the unemployment rate to be 4.6%, and CPI inflation to be 2.1%

Projections for GDP, the unemployment rate and CPI inflation

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.

M4 – UK non-bank, non-building society private sector's holdings of sterling notes and coin, and their sterling deposits (including certificates of deposit, holdings of commercial paper and other short-term instruments and claims arising from repos) held at UK banks and building societies.

MWSS – Monthly Wages and Salaries Survey.

OIS – overnight index swap.

PCE – personal consumption expenditure.

PMI – purchasing managers' index.

PPI – producer price index.

RPI – retail prices index.

Abbreviations

BTL – buy-to-let.

CCS – Credit Conditions Survey.

CFO – chief financial officer.

CIPS – Chartered Institute of Purchasing and Supply.

ECB – European Central Bank.

EU – European Union.

FCA – Financial Conduct Authority.

FOMC – Federal Open Market Committee.

FPC – Financial Policy Committee.

G7 – Canada, France, Germany, Italy, Japan, the United Kingdom and the United States.

GfK – Gesellschaft für Konsumforschung, Great Britain Ltd.

HMRC – His Majesty's Revenue and Customs.

HMT – HM Treasury.

ILO – International Labour Organization.

IMF – International Monetary Fund.

IT – information technology.

LTV – loan to value.

MIDAS – mixed-data sampling.

MPC – Monetary Policy Committee.

MTIC – missing trader intra-community.

OBR – Office for Budget Responsibility.

OFC – other financial corporation.

Ofgem – Office of Gas and Electricity Markets.

ONS – Office for National Statistics.

OPEC – Organization of the Petroleum Exporting Countries.

PAYE – Pay As You Earn.

PPI – payment protection insurance.

PPP – purchasing power parity.

REC – Recruitment and Employment Confederation.

RTI – Real Time Information.

S&P – Standard & Poor's.

SME – small and medium-sized enterprise.

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. The ONS has published estimates based on very early information from the developmental TLFS, covering the six months to August 2023, but these are only indicative and are not seasonally adjusted.