Bank of England

Monetary Policy Report

Monetary Policy Committee

May 2022

Monetary policy at the Bank of England

The objectives of monetary policy

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

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

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

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

The instruments of monetary policy

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

The Monetary Policy Report

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

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

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

The Monetary Policy Committee

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

PowerPoint™ versions of the Monetary Policy Report charts and Excel spreadsheets of the data underlying most of them are available at **www.bankofengland.co.uk/monetary-policy-report/2022/may-2022**.

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Monetary Policy Summary

The 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 4 May 2022, the MPC voted by a majority of 6-3 to increase Bank Rate by 0.25 percentage points, to 1%. Those members in the minority preferred to increase Bank Rate by 0.5 percentage points, to 1.25%.

Global inflationary pressures have intensified sharply following Russia's invasion of Ukraine. This has led to a material deterioration in the outlook for world and UK growth. These developments have exacerbated greatly the combination of adverse supply shocks that the United Kingdom and other countries continue to face. Concerns about further supply chain disruption have also risen, both due to Russia's invasion of Ukraine and to Covid-19 developments in China.

UK GDP is estimated to have risen by 0.9% in 2022 Q1, stronger than expected in the February Monetary Policy Report. The unemployment rate fell to 3.8% in the three months to February, and is likely to fall slightly further in coming months, consistent with a continuing tightening in the labour market and with a margin of excess demand at present. Surveys of business activity have generally remained strong. There have, however, been signs from indicators of retail spending and consumer confidence that the squeeze on real disposable incomes is starting to weigh on the household sector. The level of GDP is expected to be broadly unchanged in Q2.

Twelve-month CPI inflation rose to 7.0% in March, around 1 percentage point higher than expected in the February Report. The strength of inflation relative to the 2% target mainly reflects previous large increases in global energy and tradable goods prices, the latter of which is due to the shift in global demand towards durable goods and to supply chain disruptions.

The Committee's updated central projections for activity and inflation are set out in the accompanying May Monetary Policy Report. The projections are conditioned on a market-implied path for Bank Rate that rises to around 2½% by mid-2023, before falling to 2% at the end of the forecast period. Fiscal policy is assumed to evolve in line with announced Government policies. Wholesale energy prices are assumed to follow their respective futures curves for the first six months of the projections and remain constant beyond that, in contrast to futures curves, which are downward sloping over coming years. There are material risks around this assumption.

In the May Report central projection, CPI inflation is expected to rise further over the remainder of the year, to just over 9% in 2022 Q2 and averaging slightly over 10% at its peak in 2022 Q4. The majority of that further increase reflects higher household energy prices following the large rise in the Ofgem price cap in April and projected additional large increase in October. The price cap mechanism means that it takes some time for increases in wholesale gas and electricity prices, and their respective futures curves, to be reflected in retail energy prices. Given the operation of the price cap, consumer price inflation is likely to peak later in the United Kingdom than in many other economies, and may therefore fall back later. The expected rise in CPI inflation also reflects higher food, core goods and services prices.

Underlying nominal earnings growth has risen by more than projected in the February Report and is expected to strengthen in coming months, given the further tightening of the labour market and some upward pressure from higher price inflation. Companies generally expect to increase their selling prices strongly in the near term, following the sharp rises in their costs, with many reporting confidence that they will be able to rebuild at least some of their margins.

Nonetheless, in the May Report central projection, UK GDP growth is expected to slow sharply over the first half of the forecast period. That predominantly reflects the significant adverse impact of the sharp rises in global energy and tradable goods prices on most UK households' real incomes and many UK companies' profit margins. Although the unemployment rate is likely to fall slightly further in the near term, it is expected to rise to 5½% in three years' time given the sharp slowdown in demand growth. Excess supply builds to 2¼% by the end of the forecast period.

With monetary policy acting to ensure that longer-term inflation expectations are anchored at the 2% target, upward pressure on CPI inflation is expected to dissipate over time. Global commodity prices are assumed to rise no further in the central projection, global bottlenecks ease over time, and the weakening in demand growth and building excess supply lead domestic inflationary pressures to subside.

Conditioned on the rising market-implied path for Bank Rate and the MPC's current forecasting convention for future energy prices, CPI inflation is projected to fall to a little above the 2% target in two years' time, largely reflecting the waning influence of external factors, and to 1.3% in three years, well below the target and mainly reflecting weaker domestic pressures. The risks to the inflation projection are judged to be skewed to the upside at these points, given the risks of more persistent strength in nominal wage growth and domestic price setting than assumed.

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 also recognises that there will be occasions when inflation will depart from the target as a result of shocks and disturbances. The economy has recently been subject to a succession of very large shocks. Russia's invasion of Ukraine is another such shock. In particular, should recent movements prove persistent as the central projections assume, the very elevated levels of global energy and tradable goods prices, of which the United Kingdom is a net importer, will necessarily weigh further on most UK households' real incomes and many UK companies' profit margins. This is something monetary policy is unable to prevent. The role of monetary policy is to ensure that, as this real economic adjustment occurs, it does so in a manner consistent with achieving the 2% inflation target sustainably in the medium term, while minimising undesirable volatility in output.

Recent developments have exacerbated materially both the near-term peak in CPI inflation, and the prospective negative impact on activity and medium-term inflationary pressures. Nevertheless, given the current tightness of the labour market, continuing signs of robust domestic cost and price pressures, and the risk that those pressures will persist, the Committee voted to increase Bank Rate by 0.25 percentage points at this meeting.

Based on their updated assessment of the economic outlook, most members of the Committee judge that some degree of further tightening in monetary policy may still be appropriate in the coming months. There are risks on both sides of that judgement and a range of views among these members on the balance of risks. The MPC will continue to review developments in the light of incoming data and their implications for medium-term inflation.

The Committee reaffirms its preference in most circumstances to use Bank Rate as its active policy tool when adjusting the stance of monetary policy. As Bank Rate is now being increased to 1%, and consistent with the MPC's previous guidance, the Committee will consider beginning the process of selling UK government bonds held in the Asset Purchase Facility. The Committee reaffirms that the decision to commence sales will depend on economic circumstances including market conditions at the time, and that sales would be expected to be conducted in a gradual and predictable manner so as not to disrupt the functioning of financial markets. The Committee recognises the benefits of providing market participants with clarity on the framework for any potential sales programme. The Committee has therefore asked Bank staff to work on a strategy for UK government bond sales, and will provide an update at its August meeting. This will allow the Committee to make a decision at a subsequent meeting on whether to commence sales.

1: The economic outlook

Since the February Report, global inflationary pressures have intensified sharply following Russia's invasion of Ukraine. This has led to a material deterioration in the outlook for world and UK growth. These developments have exacerbated greatly the combination of adverse supply shocks that the UK and other countries continue to face. They accentuate the extent to which UK CPI inflation is well above the 2% target over the first two years of the MPC's central projection and well below the target in the third year.

Inflation has risen further in many countries. In the UK, CPI inflation rose to 7% in March, mainly due to the large increases in global energy and tradable goods prices. The latter is due to supply chain disruption and the shift in global demand towards durable goods, both relating to the pandemic.

CPI inflation is expected to peak at slightly over 10% in 2022 Q4, which would be the highest rate since 1982. The significant majority of that further increase reflects: higher household energy prices following the large rise in the Ofgem price cap in April and projected further large increase in October when the cap is next reset; and, to a lesser extent, higher food and goods prices following the war in Ukraine. As was the case in the March data, goods and energy prices are projected to account for four fifths of the overshoot in CPI inflation, relative to target, at the peak. The price cap mechanism means that it takes some time for changes in wholesale gas and electricity prices, and their respective futures curves, to be reflected in UK retail utility prices. Given the operation of the price cap, consumer price inflation is likely to peak later in the UK than in many other countries, and may therefore fall back later.

Though responsible for much less of the rise in headline inflation, domestic inflationary pressures have also increased. Underlying nominal wage growth has risen to above pre-Covid rates and is expected to strengthen in the next few months, given the further tightening of the labour market and some upward pressure from higher price inflation, as firms seek to retain and recruit staff. Consistent with this, there has been some increase in inflation in the prices of more domestically supplied services.

Firms generally expect to increase their selling prices strongly, following the sharp rises in their costs, with many confident that they will be able to rebuild at least some of their margins. This is in contrast to the recent deterioration in consumer sentiment.

In line with the MPC's conventions, the forecast is conditioned on: wholesale energy prices following their futures curves for the next six months and then remaining constant; announced government policy including the Ofgem price cap; and the path of Bank Rate implied by financial markets, which rises to just over 2.5% by mid-2023, 1.1 percentage points higher than in February, before falling to 2.0% by the end of the projection.

There is considerable uncertainty around the MPC's projections. UK GDP growth slows sharply over the first half of the forecast. That predominantly reflects the significant adverse impact of the sharp rises in global commodity and tradable goods prices on many UK companies' profit margins and most UK households' real incomes – total real household disposable income is projected to fall in 2022 by the second largest amount since records began in 1964 before picking up thereafter. GDP is expected to contract in 2022 Q4, in part reflecting the projected large rise in household energy prices in October. Although unemployment is expected to decline further in the near term, it rises to 5½% by the end of the projection given the sharp slowdown in demand growth and excess supply builds to 2¼%.

After the peak in 2022 Q4, the upward pressure on CPI inflation is expected to dissipate rapidly, as global commodity prices are assumed to rise no further, global bottlenecks ease, and domestic inflationary pressures subside in response to weaker growth of demand and a rising degree of excess supply. CPI inflation is projected to fall to just above the 2% target in two years' time, largely reflecting the waning influence of external factors, and to 1.3% in three years, well below the target, reflecting weaker domestic pressures. The risks to the inflation projection are judged to be skewed to the upside at these points, given the risks of more persistent strength in wage growth and domestic price-setting than assumed.

In projections conditioned on the alternative assumption of constant interest rates at 1%, activity is projected to be materially stronger than in the MPC's forecasts conditioned on market rates. As a result, unemployment remains close to its current rate over the forecast period, instead of rising by around 1½ percentage points. CPI inflation is forecast to be significantly higher, with inflation projected to be 2.9% and 2.2% in two years and three years' time respectively.

1.1: The MPC's projections

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

	2022 Q2	2023 Q2	2024 Q2	2025 Q2
GDP (c)	3.2 (3.2)	0.0 (1.2)	0.2 (1.0)	0.7
CPI inflation (d)	9.1 (7.0)	6.6 (3.5)	2.1 (1.9)	1.3
LFS unemployment rate	3.6 (3.9)	3.9 (4.4)	4.6 (4.7)	5.5
Excess supply/**Excess demand** (e)	**+½** (0)	-1¼ (-½)	-1¾ (-½)	-2¼
Bank Rate (f)	1.0 (0.7)	2.5 (1.4)	2.4 (1.4)	2.0

(a) Modal projections for GDP, CPI inflation, LFS unemployment and excess supply/excess demand. Figures in parentheses show the corresponding projections in the February 2022 Monetary Policy Report.
(b) Unless otherwise stated, the projections shown in this section are conditioned on: Bank Rate following a path implied by market yields; the Term Funding Scheme and Term Funding Scheme with additional incentives for Small and Medium-sized Enterprises; the Recommendations of the Financial Policy Committee and the current regulatory plans of the Prudential Regulation Authority; the Office for Budget Responsibility's assessment of the Government's tax and spending plans as set out in the Spring Statement 2022; commodity prices following market paths for six months, then held flat; the sterling exchange rate remaining broadly flat; and the prevailing prices of a broad range of other assets, which embody market expectations of the future stocks of purchased gilts and corporate bonds. The main assumptions are set out in the 'Download the chart slides and data' link at **Monetary Policy Report – May 2022**.
(c) Four-quarter growth in real GDP. The growth rates reported in the table exclude the backcast for GDP. Including the backcast 2022 Q2 growth is 3.2%, 2023 Q2 growth is 0.0%, 2024 Q2 growth is 0.2% and 2025 Q2 growth is 0.7%.
(d) Four-quarter inflation rate.
(e) Per cent of potential GDP. A negative figure implies output is below potential and a positive that it is above.
(f) Per cent. The path for Bank Rate implied by forward market interest rates. The curves are based on overnight index swap rates.

The conditioning assumptions underlying the MPC's projections

In line with the Committee's conventions, the projections are conditioned on a number of technical assumptions.

The forecast is conditioned on the paths for policy rates implied by financial markets. Since the February Report, interest rates have increased materially in a number of advanced economies (Chart 2.6). In the UK, the market-implied path for Bank Rate, as captured in the 15-day average of forward interest rates to 26 April, was consistent with Bank Rate reaching just over 2.5% in mid-2023, 1.1 percentage points higher than in February, before falling back to 2.0% by the end of the projection (Table 1.A). The path for Bank Rate implied by financial markets is higher than that expected by respondents to the Bank's latest **Market Participants Survey**. Longer-term interest rates have also increased sharply since February (Section 2.1).

Fiscal policy is assumed to evolve in line with announced government policies. Bank staff estimate that the measures contained in the Spring Statement will raise the level of GDP by a peak of ½% over the forecast period (Section 2.2). Fiscal policy as a whole tightens over the projection.

The forecast is conditioned on wholesale energy prices following their respective futures curves for the first six months of the projection and then remaining constant, and announced government policy including the Ofgem price cap (see Box A of the **November 2021 Report**). Energy prices have been highly volatile recently, and have risen further since February. They are significantly higher than pre-pandemic averages and a year ago. Based on the 15-day average to 26 April, sterling oil prices were 65% above their 2021 Q2 level, and UK wholesale gas prices almost three times higher. Higher gas prices have also led to a sharp pickup in wholesale electricity prices, which have risen by around 125% over this period. Although UK spot gas prices have fallen in recent weeks (Section 3), energy futures curves are much higher over the next year than in February reflecting the impact of the war in Ukraine. Based on these assumptions and the UK energy regulator Ofgem's published method for calculating the retail gas and electricity price caps, Bank staff currently forecast that household energy prices will rise by around 40% in October following the 54% increase in April.

As with energy prices, the MPC's projections are conditioned on non-energy commodity prices following their respective futures curves for the first six months and beyond that remaining constant. A wide range of non-energy commodity prices and their respective futures curves, for example agricultural commodities and metals, have also risen sharply since the invasion of Ukraine.

The global outlook

> **Global inflationary pressures are forecast to build further in the near term, before falling back sharply.**

Global inflationary pressures have intensified sharply following the invasion of Ukraine. This largely reflects the further sharp increases in energy and other commodity prices. It also reflects the impact of continued and more widespread disruption to global supply chains on tradable goods prices, including the restrictions in China to contain outbreaks of Covid. In addition, the shift in global demand towards durable goods and away from services, particularly in the US (see Box B in the **February Report**), continues to put significant upward pressure on tradable goods prices. Bank staff estimate that on a UK-weighted basis, four-quarter world export price inflation, including energy, rose to 15% in 2022 Q1, and world export prices are expected to rise further in the near term. This is putting substantial upward pressure on consumer price inflation in many countries.

Four-quarter world export price inflation is then forecast to fall sharply and turn negative in mid-2023. The sharp fall largely reflects the assumption that global commodity prices remain constant beyond six months. Further out, it reflects the Committee's expectations that supply chain disruption will start to ease at the end of this year and demand, particularly in the US, will shift away from durable goods to services. Both of these factors will put downward pressure on tradable goods prices, though they are expected to remain well above their pre-pandemic levels at the end of the forecast period. The projected fall in energy and other commodity prices and easing in global bottlenecks are the main reasons why global consumer price inflation falls back materially beyond the near term.

The outlook for world activity has deteriorated materially following the invasion of Ukraine.

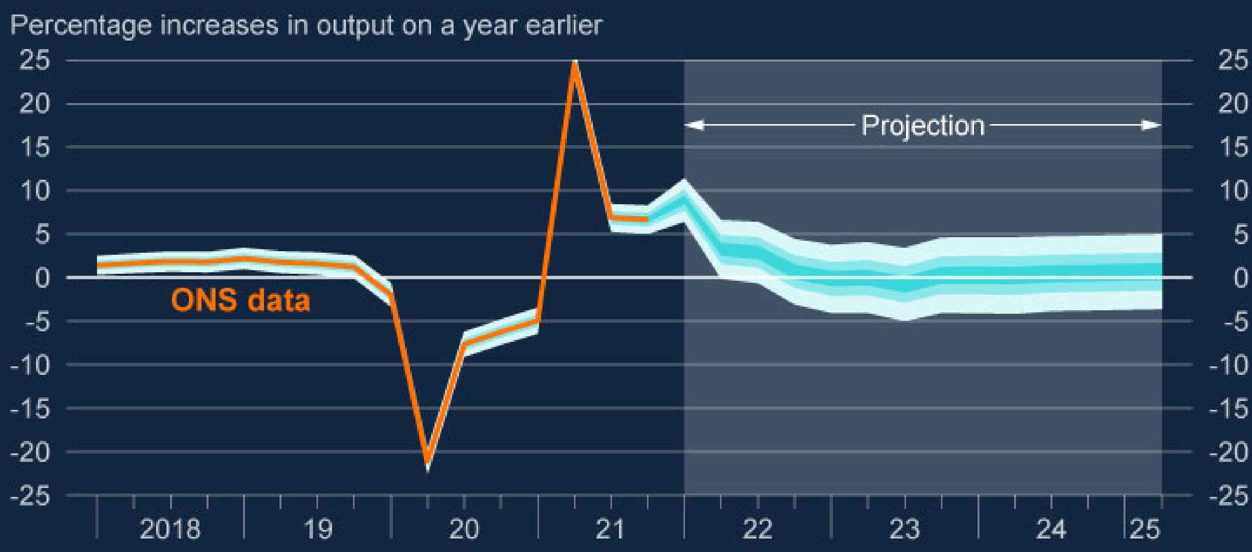
The war in Ukraine is adversely affecting world activity through a number of channels. The most significant of these are the sharp increases in energy and other commodity prices and the continued and more widespread supply chain disruption pushing up tradable goods prices. As a result, in the MPC's projections, annual UK-weighted world GDP growth is projected to slow from 5¼% in 2021 to 2½% in 2022 and 2% in 2024 (Table 1.C), which weighs on UK demand.

UK GDP growth

UK GDP growth slows sharply over the first half of the forecast period.

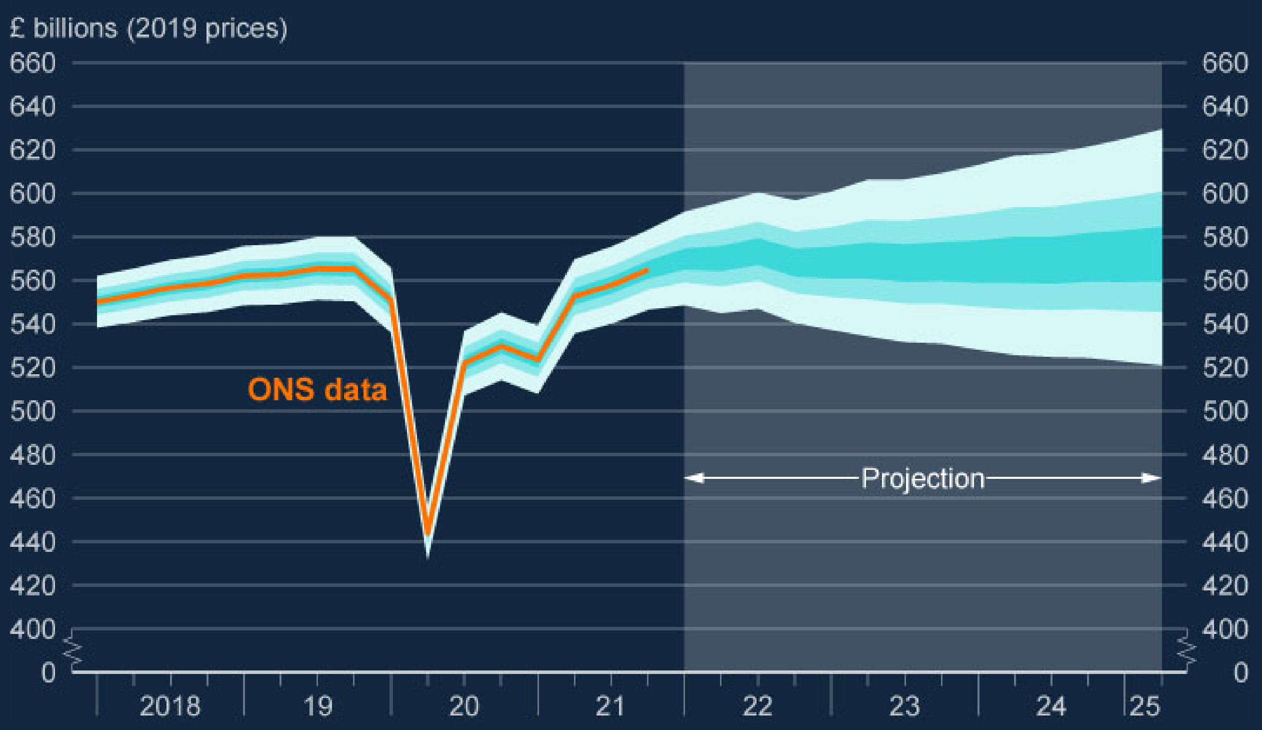
Bank staff estimate that quarterly UK GDP growth was 0.9% in 2022 Q1. Growth slows sharply over the first half of the projection (Chart 1.1), reflecting the significant adverse impact of higher global commodity and tradable goods prices on UK demand. GDP is projected to fall in 2022 Q4 (Chart 1.2), driven largely by the decline in households' real incomes, including that stemming from the projected rise of around 40% in retail gas and electricity prices when the Ofgem price caps are next reset in October. Calendar year GDP growth is broadly flat in 2023. Four-quarter GDP growth picks up to around ¾% by the end of the projection as the pressures on household incomes ease somewhat, although this is below pre-pandemic rates.

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



The fan charts depict the probability of various outcomes for GDP growth (in Chart 1.1) and GDP (in Chart 1.2). They have been conditioned on the assumptions in Table 1.A footnote (b). To the left of the shaded area, the distribution reflects uncertainty around revisions to the data over the past. To aid comparability with the official data, it does not include the backcast for expected revisions, which is available from the 'Download the chart slides and data' link at **Monetary Policy Report – May 2022**. To the right of the shaded area, the distribution reflects uncertainty over the evolution of GDP growth (in Chart 1.1) and GDP (in Chart 1.2) in the future. If economic circumstances identical to today's were to prevail on 100 occasions, the MPC's best collective judgement is that the mature estimate of GDP growth (in Chart 1.1) or GDP (in Chart 1.2) would lie within the darkest central band on only 30 of those occasions. The fan chart is constructed so that outturns are also expected to lie within each pair of the lighter aqua areas on 30 occasions. In any particular quarter of the forecast period, GDP growth or GDP 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 or GDP can fall anywhere outside the aqua area of the fan chart. Over the forecast period, this has been depicted by the light grey background. See the box on page 39 of the November 2007 Inflation Report for a fuller description of the fan chart and what it represents.

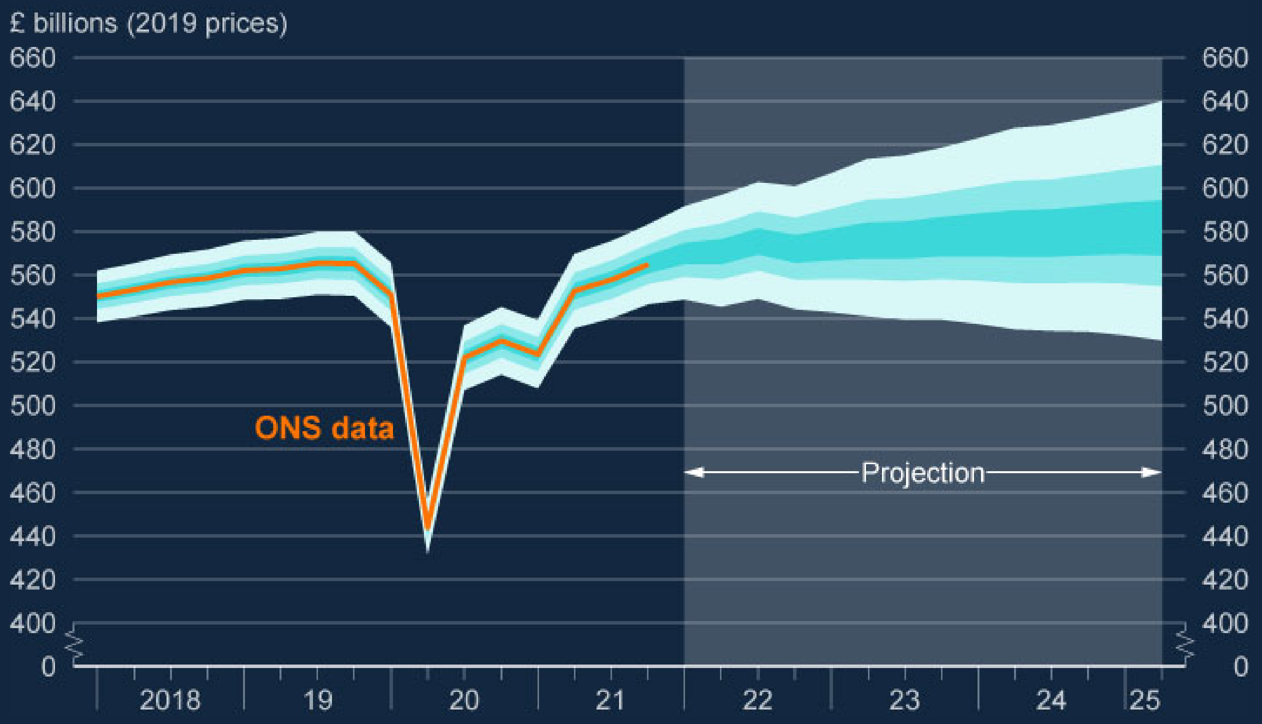
Chart 1.2: GDP projection based on market interest rate expectations, other policy measures as announced



See footnote for Chart 1.1.

In projections conditioned on the alternative assumption of constant interest rates at 1%,[1] GDP growth is materially stronger than in the MPC's forecasts conditioned on market rates (Chart 1.3).

Chart 1.3: GDP projection based on constant interest rates at 1%, other policy measures as announced



This fan chart depicts the probability of various outcomes for GDP, conditioned on the assumptions in Table 1.A footnote (b), apart from for Bank Rate, with this chart conditioned on constant interest rates at 1%. The fan chart has the same interpretation as Chart 1.1.

Demand growth slows sharply over the projection.

The prices of global energy, other commodity and tradable goods have risen sharply. The UK is a net importer of these, so overall, and under the assumption that global energy and commodity prices remain constant beyond six months, this will lower most UK households' real incomes and many UK companies' profit margins.

Total real household disposable income is projected to fall by 1¾% in 2022 (Table 1.C), despite the support from the fiscal measures contained in the Spring Statement (Section 2.2). This is a greater fall than in the February projection, and apart from in 2011 would be the largest contraction since records began in 1964. Household income picks up over the rest of the forecast.

As a result of the real income squeeze, four-quarter consumption growth slows materially over the first half of the forecast. However, it slows by much less than income growth and is positive throughout the projection as, consistent with the latest Bank/NMG survey

(Section 3), households are assumed to respond in part to the real income squeeze by saving less. That is supported by consumers running down the stock of savings they accumulated, in aggregate, during the pandemic. In the central projection, the household saving rate is forecast to decline from 6½% in 2021 Q4 to 3½% in 2022 Q4, which would be the lowest level since 1999, before it rises to 6¾% by the end of the projection.

Business investment picks up over the next year and then falls back in the second half of the forecast period, as some spending is brought forward in response to the Government's capital allowance super-deduction. Some contacts of the Bank's Agents have reported that their capital spending remains below their relatively strong investment intentions as global bottlenecks continue to limit supplies of some capital goods (Box C).

The fall in UK demand growth over the projection also reflects the slowing in the world economy and the tightening in fiscal and monetary policy as both evolve in line with their conditioning assumptions.

Supply growth also slows, to around 1% at the end of the forecast period.

Supply disruptions for a wide range of inputs to production and certain tradable goods, both accentuated by the invasion of Ukraine (Box B), and continued recruitment difficulties, contribute to a slowing in supply growth in 2022. Supply growth is projected to be around 1% at the end of the projection, a little below the rates seen before Covid.

Excess supply/demand

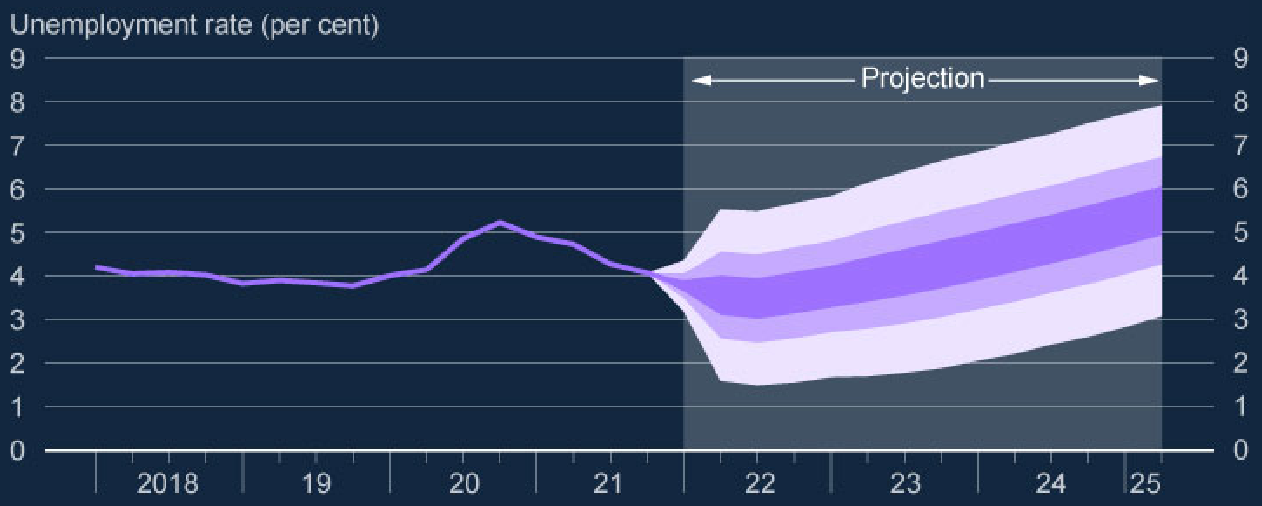
The Committee judges that there is a margin of excess demand at present…

Most indicators suggest that there is currently a margin of excess demand across the economy as a whole. The labour market has tightened further, with the unemployment rate at 3.8% in February having fallen below the MPC's assessment of the medium-term equilibrium rate of unemployment of just above 4%. Firms continue to report significant recruitment difficulties and elevated levels of vacancies and most surveys suggest above-average levels of capacity utilisation.

…but excess supply is projected to emerge later this year and build over the forecast period.

Unemployment is expected to fall further in the near term, reflecting the recent strength of activity and business optimism. However, the projected sharp slowing in demand growth means that the MPC expects demand to grow more slowly than supply over the projection. As a result, unemployment is expected to start to rise in 2022 Q4 (Chart 1.4) when a margin of excess supply emerges. The degree of excess supply is expected to rise to around 2¼%, and the rate of unemployment to 5½%, by the end of the forecast period (Table 1.A).

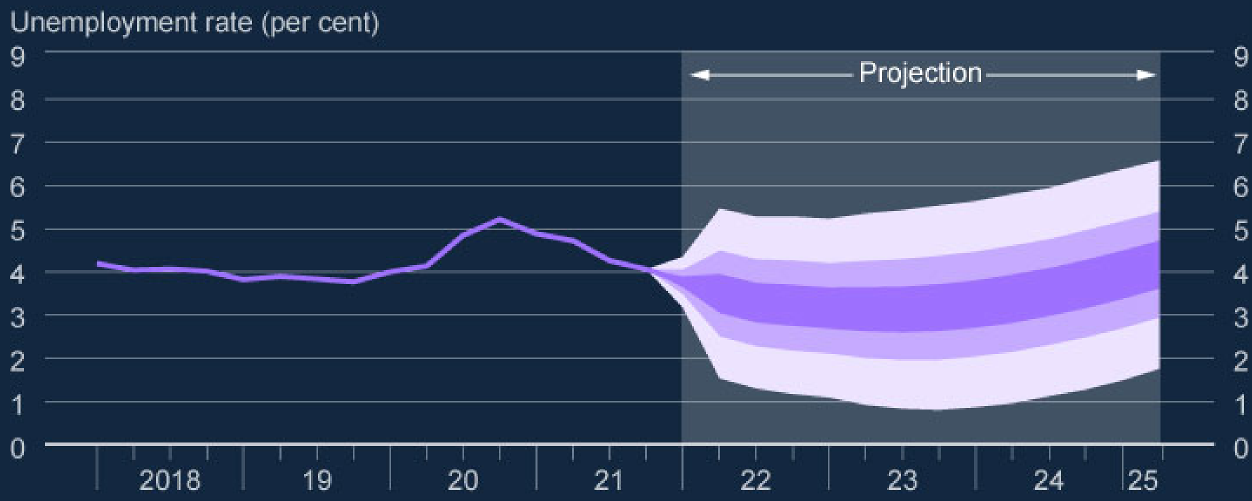
Chart 1.4: Unemployment projection based on market interest rate expectations, other policy measures as announced



The fan chart depicts the probability of various outcomes for LFS unemployment. It has been conditioned on the assumptions in Table 1.A footnote (b). The coloured bands have the same interpretation as in Charts 1.1 and 1.2, and portray 90% of the probability distribution. The calibration of this fan chart takes account of the likely path dependency of the economy, where, for example, it is judged that shocks to unemployment in one quarter will continue to have some effect on unemployment in successive quarters. The fan begins in 2022 Q1, a quarter earlier than for CPI inflation. That is because Q1 is a staff projection for the unemployment rate, based in part on data for January and February. The unemployment rate was 3.8% in the three months to February, and is projected to be 3.8% in Q1 as a whole. A significant proportion of this distribution lies below Bank staff's current estimate of the long-term equilibrium unemployment rate. There is therefore uncertainty about the precise calibration of this fan chart.

In projections conditioned on the alternative assumption of constant interest rates at 1%, unemployment remains close to its current rate over the forecast period, instead of rising by around 1½ percentage points, as in the MPC's forecast conditional on market rates (Chart 1.5).

Chart 1.5: Unemployment projection based on constant interest rates at 1%, other policy measures as announced



The fan chart depicts the probability of various outcomes for LFS unemployment. It has been conditioned on the assumptions in Table 1.A footnote (b), apart from for Bank Rate, with this chart conditioned on constant interest rates at 1%. The coloured bands have the same interpretation as in Charts 1.1 and 1.2, and portray 90% of the probability distribution. The calibration of this fan chart takes account of the likely path dependency of the economy, where, for example, it is judged that shocks to unemployment in one quarter will continue to have some effect on unemployment in successive quarters. The fan begins in 2022 Q1, a quarter earlier than for CPI inflation. That is because Q1 is a staff projection for the unemployment rate, based in part on data for January and February. The unemployment rate was 3.8% in the three months to February, and is projected to be 3.8% in Q1 as a whole. A significant proportion of this distribution lies below Bank staff's current estimate of the long-term equilibrium unemployment rate. There is therefore uncertainty about the precise calibration of this fan chart.

CPI inflation

The rise in CPI inflation over the past year predominantly reflects external factors. Domestic inflationary pressures have also strengthened.

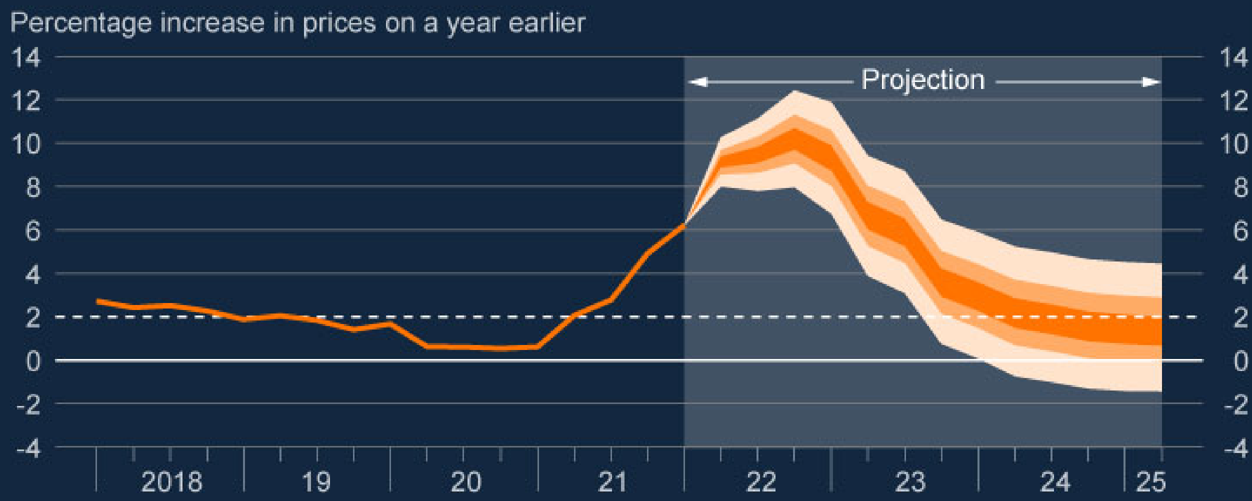
CPI inflation rose to 7% in March. The vast majority of the increase in inflation over the past year and four fifths of the overshoot relative to the 2% target reflects the impact of the sharp increases in global energy and tradable goods prices (Section 2.3).

Domestic inflationary pressures have also risen somewhat, with services price inflation having picked up to its highest rate since November 2012. That is likely to reflect, in part, the rise in Bank staff's estimates of underlying wage growth to around 4%, above pre-pandemic rates (Section 2.3). That, in turn, reflects the tightening in the labour market and upward pressure from the rise in CPI inflation, as firms seek to retain and recruit staff, consistent with the Agents' pay survey set out in the February Report and the latest reports from their contacts.

Reflecting similar factors, CPI inflation is expected to rise further to a peak of slightly over 10% in 2022 Q4.

CPI inflation is expected to rise further to a peak of slightly above 10%, on average, in 2022 Q4 (Chart 1.6). The significant majority of that expected increase reflects: the rise of 54% in household energy prices in April and the projected increase of around 40% when the Ofgem price is next reset in October; and, to a lesser extent, higher food and goods prices, given the sharp rises in global agricultural commodity and energy prices and renewed supply chain disruption following the invasion of Ukraine. As was the case in the March data, goods and energy prices are projected to account for four fifths of the overshoot in CPI inflation, relative to target, at the peak when the contribution of energy prices to CPI inflation is expected to rise to 4 percentage points (Chart 1.7). The price cap mechanism means that it takes some time for changes in wholesale gas and electricity prices, and their respective futures curves, to be reflected in UK retail utility prices. Given the operation of the price cap, consumer price inflation is likely to peak later in the UK than in many other countries, and may therefore fall back later.

Chart 1.6: CPI inflation projection based on market interest rate expectations, other policy measures as announced



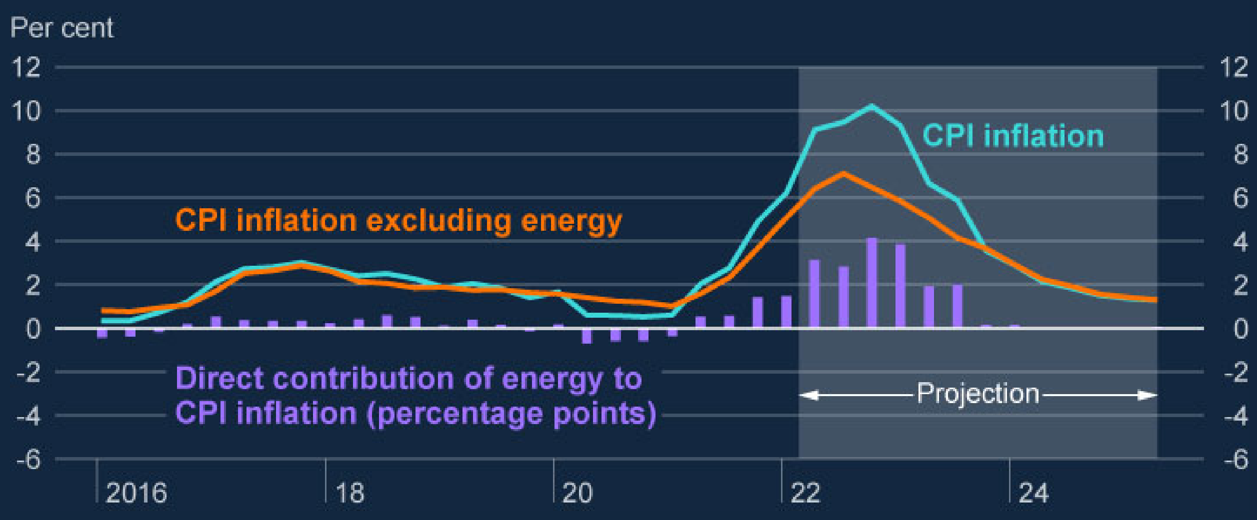
The fan chart depicts the probability of various outcomes for CPI inflation in the future. It has been conditioned on the assumptions in Table 1.A footnote (b). If economic circumstances identical to today's were to prevail on 100 occasions, the MPC's best collective judgement is that inflation in any particular quarter would lie within the darkest central band on only 30 of those occasions. The fan chart is constructed so that outturns of inflation are also expected to lie within each pair of the lighter orange areas on 30 occasions. In any particular quarter of the forecast period, inflation is therefore expected to lie somewhere within the fans on 90 out of 100 occasions. And on the remaining 10 out of 100 occasions inflation can fall anywhere outside the orange area of the fan chart. Over the forecast period, this has been depicted by the light 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.

Domestic price pressures are also expected to rise further. Underlying wage growth is projected to pick up further in the next few months. That reflects the tightening in the labour market and further upward pressure from the rise in CPI inflation, as firms seek to retain and recruit staff. And, as suggested by the Agents' survey on pricing and margins (Section 3), firms seek to rebuild their margins following the sharp increases in their costs. As a result, services price inflation is expected to rise a little further over this period. Whole-economy average weekly earnings (AWE) growth is expected to be slightly lower than underlying wage growth during 2022, given an expected drag from compositional effects.

As external and domestic pressures subside, CPI inflation is projected to fall back to around the 2% target in two years' time, and well below the target in three years.

Based on the conditioning assumptions set out above, after the expected peak in 2022 Q4, CPI inflation falls back rapidly to 2.1% in two years' time and 1.3% in three years (Chart 1.6). The fall in inflation over the first two years of the projection to close to the 2% target predominantly reflects the contribution of energy prices fading to zero by the start of 2024 (Chart 1.7), as prices are assumed to stabilise (albeit at historically high levels) and much lower goods price inflation, as global bottlenecks ease. Domestic inflationary pressures also lessen as the slowdown in demand and the resultant increases in unemployment and excess supply moderate wage growth and firms' ability to rebuild their margins. As a result, CPI inflation falls to well below the target in the third year of the forecast.

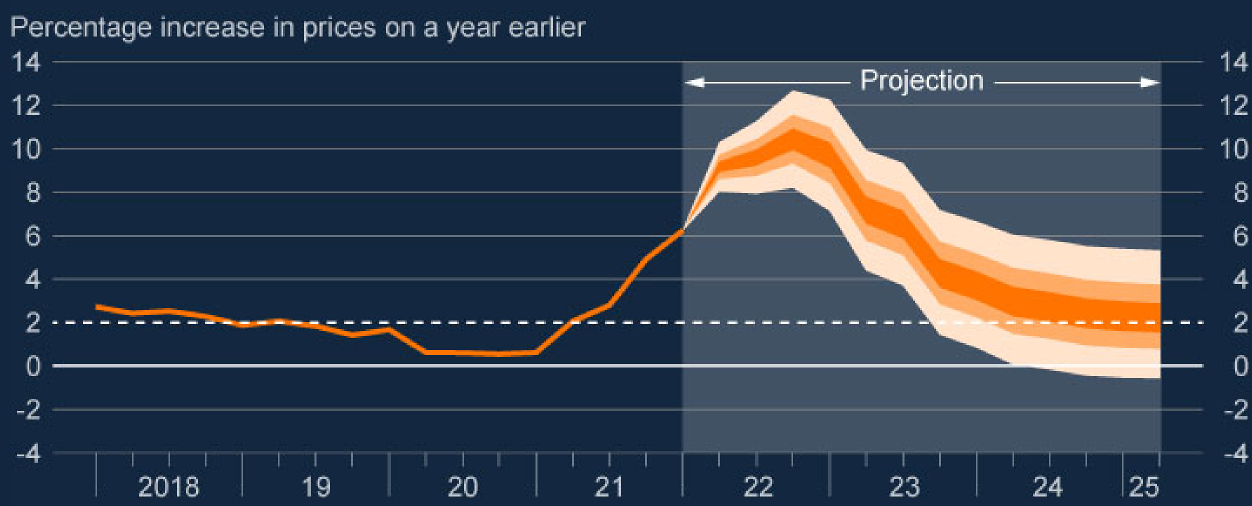
Chart 1.7: CPI inflation and CPI inflation excluding energy (a)



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

In projections conditioned on the alternative assumption of constant interest rates at 1%, CPI inflation is projected to be 2.9% and 2.2% in two years and three years' time respectively, significantly higher than in the Committee's forecast conditioned on market rates (Chart 1.8).

Chart 1.8: CPI inflation projection based on constant interest rates at 1%, other policy measures as announced



This fan chart depicts the probability of various outcomes for CPI inflation in the future, conditioned on the assumptions in Table 1.A footnote (b), apart from for Bank Rate, with this chart conditioned on constant interest rates at 1%. The fan chart has the same interpretation as Chart 1.6.

Comparison with the February Report projections

UK GDP is materially lower than in February over most of the forecast period.

The level of UK GDP is expected to be 2% lower than in February by the end of the forecast period. That largely reflects the adverse impact on UK and world activity of the further sharp increases in global energy, other commodity and tradable goods prices, and to a lesser extent, the impact of the higher market path for Bank Rate.

Although unemployment is lower in the near term, the weaker outlook for demand means that it is higher at the end of the projection than forecast in February.

Reflecting recent stronger-than-expected GDP growth, unemployment has again fallen and the labour market tightened by more than expected since the previous Report. Given that and intelligence from the Bank's Agents, the MPC judges that unemployment will fall a little further and start to rise a little later than assumed in February. Unemployment then rises more sharply, reflecting the weaker outlook for demand. As a result, the unemployment rate is around ½% higher at the end of the projection. The Committee has also revised down its projection for labour participation following the fall during the pandemic. The higher level of unemployment and lower path for labour participation mean that excess supply builds to 2¼% by the end of the projection, 1¼ percentage points more than in February.

The projection for CPI inflation is materially stronger than in February over the first two years of the forecast period, but slightly lower in the third year.

The further recent rises in energy and other commodity prices and their respective futures curves account for most of the significant upward revision to the projection for CPI inflation over the first 18 months of the forecast period.

The MPC's projections are also based on an assumption that supply chain disruption will persist for longer, following the invasion of Ukraine, and the restrictions in China to contain outbreaks of Covid. This puts more upward pressure on global tradable goods prices in the near term than in February and pushes up further on CPI inflation over the next year.

The projection for underlying wage growth in the near term is around ½ percentage point stronger than in February. That reflects a judgement that many firms will grant larger pay awards to retain and recruit staff given the tightening in the labour market and the sharper rise in inflation than previously assumed (Box C).

As a result of these factors, the projection for CPI inflation is materially higher than in February over the first two years of the forecast period, and lower in the third year.

1.2: Key judgements and risks

Key judgement 1: persistently higher global commodity prices and tradable goods prices from supply chain constraints, both accentuated by the invasion of Ukraine, lead to a sharp slowdown in world activity and push global consumer price inflation up further before their effects eventually dissipate.

As set out above, the MPC's forecasts are conditioned on paths for energy and other commodity prices, which follow their respective futures curves for the first six months of the projection, and then remain constant. These futures curves generally fall beyond 2022 so this assumption implies paths for commodity prices that are significantly above the futures curves.

There are significant risks around these paths. These depend to a significant extent on how the war in Ukraine evolves. One upside risk is that the disruption to the supply of commodities is greater than assumed. Another is an even greater escalation of geopolitical tensions, which would likely be associated with higher general uncertainty about the economic outlook. There are downside risks to the paths for commodity prices if these tensions are resolved more quickly or it is easier to substitute away from the affected commodities than assumed. Higher commodity prices would further restrain growth in global activity and put more upward pressure on consumer price inflation over the next year or so, and vice versa if commodity prices are lower.

There are also downside risks to the assumed paths for energy and other commodity prices if prices fall back to the levels implied by futures curves. In the case of energy prices, the level of GDP would be nearly 1% higher by the end of the forecast period and excess supply and unemployment around ¾ percentage points lower. CPI inflation would fall back towards the target more rapidly than in the central projection and would be around ½ and over 1 percentage points below the target in two and three years' time respectively (Table 1.B).

Table 1.B: GDP growth, excess supply/demand and CPI inflation in the MPC's central projection and in the alternative scenario in which energy prices follow their futures curves throughout the forecast period (a)

Per cent	2022 Q2	2023 Q2	2024 Q2	2025 Q2
Central projection				
GDP	3.2	0	0.2	0.7
Excess supply/**Excess demand**	½	-1¼	-1¾	-2¼
CPI inflation	9.1	6.6	2.1	1.3
Alternative scenario				
GDP	3.2	0.3	0.6	0.9
Excess supply/**Excess demand**	½	-1	-1¼	-1½
CPI inflation	9.1	6.0	1.4	0.7

(a) The table shows projections for: four-quarter growth in real GDP, excluding the backcast for GDP; four-quarter inflation rates; and excess supply/demand as per cent of potential GDP. The projections have been conditioned on the assumptions in Table 1.A footnote (b) unless otherwise specified.

In the MPC's central projection, world export prices rise a little further in the near term, partly reflecting upward pressure from global bottlenecks. World export prices then fall back a little as these effects fade, though prices remain well above their pre-pandemic levels at the end of the forecast period. There are similar risks around this judgement.

In the near term, global bottlenecks could persist for longer if the war in Ukraine and the restrictions in China to contain outbreaks of Covid lead to larger and more persistent adverse effects on global supply chains than assumed. This would depress global GDP growth further and put more upward pressure on world export and consumer price inflation over the next year.

If global bottlenecks ease by more or earlier than expected, for example if supply chain disruption eases or global demand shifts from durable goods towards services to a greater extent than assumed, global goods prices could fall closer to their pre-pandemic levels over the forecast period. This would put more downward pressure on world export and consumer price inflation and give greater support to world activity than assumed.

Key judgement 2: the labour market tightens further in the near term before the slowdown in demand leads to a rise in unemployment and excess supply over the rest of the projection.

The labour market has tightened by more than the MPC expected over the past year. Although the Committee has made a judgement that unemployment is now expected to fall a little further and start to rise a little later, there is still a risk that labour demand is stronger and the labour market remains tighter for longer than assumed, given the strength of business optimism.

Recruitment difficulties remain acute with the number of vacancies having risen to a record high. There is a risk that this reflects some frictions in the matching of workers and jobs and has been accompanied by a rise in the medium-term equilibrium rate of unemployment, which would put further upward pressure on wage growth.

The labour market could also be tighter than assumed if more of the fall in labour participation since the start of the pandemic reflects people leaving the labour market permanently. On the other hand, some of those who have recently left the labour market may return to work to support their income and spending in the face of the real income squeeze.

Unemployment would be higher, the labour market looser and excess supply greater than expected if the downside risks to the demand outlook set out in Key judgement 3 below materialised, and vice versa if the upside risks crystallised.

Key judgement 3: demand growth in the UK slows sharply over the first half of the projection, predominantly reflecting the adverse impact of higher global commodity and tradable goods prices.

As set out in Section 1.1, household consumption growth slows sharply over the first half of the projection, but by less than household real income growth as the saving rate falls back over the next year before income growth and the saving rate pick up later.

Demand growth could slow by more than expected if households cut back their spending by more than assumed in the face of the squeeze in their real incomes. In aggregate, households accumulated significant additional savings during the pandemic, which should support their ability to smooth consumption temporarily as real incomes decline. In the central forecast, households are assumed to save less to meet the higher cost of living and the saving rate falls near to historically low levels at the end of 2022.

But the rise in savings during the pandemic has not occurred evenly – it is more marked among higher-income households – so not everyone may be in a position to do this. Energy and food bills form a larger share of lower-income households' spending, so their ability to use savings to support their consumption may be limited (Section 3). In addition, and even for higher-income households, the associated deterioration in the economic outlook may increase households' uncertainty about the future, leading them to increase their precautionary saving and lower their spending further. Higher uncertainty would also tend to lower capital spending by firms.

Consumer spending could be stronger than projected if the labour market is more resilient (Key judgement 2) and, therefore, households' real income higher than expected. For example, this might encourage households to spend more of the additional savings they have accumulated, in aggregate, during the pandemic. Household spending could also be higher than expected if they believe that the rises in global commodity and tradable goods prices are likely to reverse quickly. If commodity prices fall by more than is assumed in the MPC's central projections, demand growth would be stronger (Key judgement 1).

Overall, the risks to the MPC's UK unemployment and GDP growth projections are judged to be balanced.

Key judgement 4: the vast majority of the increase and subsequent fall in CPI inflation reflects the impact of external factors. Domestic price pressures rise further this year, as wage growth strengthens and companies rebuild their margins. The increase in excess supply moderates these forces such that inflation is close to the 2% target in two years' time and well below it in three years.

There are significant risks around the central projection for CPI inflation from both global factors, set out in Key judgement 1, and domestic inflationary pressures, set out here.

Risks to the projection for wage growth are to the upside over the next year or so, given acute recruitment difficulties and if firms grant larger pay awards than assumed in order to retain or recruit staff given the tightening in the labour market and the sharp rise in CPI inflation. Contacts of the Bank's Agents report that so far 2022 pay settlements have been broadly in line with expectations from the Agents' pay survey set out in the February Report. However, upside risks have increased with some firms reporting that they may need to make additional pay awards or bonuses later in the year to retain or recruit staff.

Firms may also be able to rebuild their margins by more than assumed over the projection. Around half of respondents to the Agents' pricing and margins survey reported that they are finding it easier than usual to pass on their higher costs to prices (Section 3). Indicators of firms' expectations for the increase in their selling prices are robust and have been revised up rapidly, and many point to upside risks to the central projection for CPI inflation in the near term.

Over the past few months, indicators of people's short-term inflation expectations and measures of inflation expectations two to three years ahead have risen as inflation has picked up (Section 2.3). Longer-term inflation expectations measured from financial markets and household surveys have also increased in recent months, though by less than short-term measures, and are elevated by historic norms. Professional forecasters continue to expect CPI inflation to be close to target two and three years ahead. A risk to the inflation outlook is that longer-term inflation expectations evolve such that wage and price-setting are not consistent with inflation returning to the 2% target in the medium term. The Committee will continue to monitor measures of inflation expectations very closely and will continue to act to ensure that longer-term inflation expectations are well anchored around the 2% target.

Overall, the risks to the MPC's inflation projection set out in Key judgements 1 and 4 are judged to be to be balanced in the first year of the forecast and skewed to the upside at the year 2 and 3 points, given the risks of more persistent strength in wage growth and domestic price-setting than assumed.

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

	Averages		Projections				
	1998-2007	2010-2019	2020	2021	2022	2023	2024
World GDP (UK-weighted) (c)	**3**	**2½**	**-4¼**	**5¼**	**2½ (3¼)**	**2 (3)**	**2 (2¼)**
World GDP (PPP-weighted) (d)	4	3¾	-3¼	6	3½ (4¼)	3¼ (4)	3½ (3½)
Euro-area GDP (e)	2¼	1½	-6½	5¼	2¼ (3)	1¼ (2½)	1 (1½)
US GDP (f)	3	2¼	-3½	5¾	3¼ (4)	2¼ (2¾)	2 (2)
Emerging market GDP (PPP-weighted) (g)	5½	5	-2½	6½	4 (5)	4½ (5)	5 (4¾)
of which, China GDP (h)	10	7¾	2¼	8	4¾ (4¾)	5½ (5¾)	5¼ (5¼)
UK GDP (i)	**3**	**2**	**-9¼**	**7½**	**3¾ (3¾)**	**-¼ (1¼)**	**¼ (1)**
Household consumption (j)	3¼	2	-10½	6¼	4¾ (5½)	1 (1½)	1 (1¼)
Business investment (k)	3	3¾	-11¼	-1	11 (13¾)	½ (2)	-5¼ (-4¾)
Housing investment (l)	3¼	3¾	-12½	14	7¼ (5½)	-1¾ (3¾)	-1½ (½)
Exports (m)	4½	3½	-13	-1¼	4¼ (3)	3 (5¾)	2½ (3¼)
Imports (n)	6¼	3¾	-15¾	3¾	5½ (8¾)	7¾ (7¾)	2¼ (2)
Contribution of net trade to GDP (o)	-½	0	1	-1½	-½ (-1¾)	-1½ (-¾)	0 (¼)
Real post-tax labour income (p)	3¼	1½	2	1	-3¼ (-2)	-¼ (-½)	1¾ (¾)
Real post-tax household disposable income (q)	3	1½	-¾	2	-1¾ (-1¼)	1 (¾)	2½ (1½)

Household saving ratio (r)	7¼	7½	14	10½	4½ (4¾)	4½ (4)	5¾ (4¼)
Credit spreads (s)	¾	2½	2	1½	1 (1¼)	1¼ (1½)	1½ (1½)
Excess Supply/**Excess Demand** (t)	0	-1¾	-1¾	-¼	¼ (0)	-1¼ (-½)	-1¾ (-¾)
Hourly labour productivity (u)	2½	¾	1½	1	-¼ (-½)	¼ (1)	1 (1)
Employment (v)	1	1¼	-2½	1	¾ (1)	-½ (¼)	-¼ (0)
Average weekly hours worked (w)	32¼	32	30¼	31½	31¾ (31¾)	31¾ (31¾)	31¾ (31¾)
Unemployment rate (x)	5¼	6	5¼	4	3½ (4)	4¼ (4½)	5 (5)
Participation rate (y)	63	63½	63½	63¼	63 (63½)	63 (63½)	62¾ (63½)
CPI inflation (z)	**1½**	**2¼**	½	**5**	**10¼ (5¾)**	**3½ (2½)**	**1½ (1¾)**
UK import prices (aa)	-½	1¼	2¾	2¼	4¾ (1½)	-2¼ (-1)	-1¾ (-1)
Energy prices - direct contribution to CPI inflation (ab)	¼	¼	-½	1½	4 (2)	¼ (0)	0 (0)
Average weekly earnings (ac)	4¼	2¼	4½	4½	5¾ (3¾)	4¾ (3)	2¾ (2¼)
Unit labour costs (ad)	2¾	1¼	11¾	-2½	6¾ (2¾)	4 (2)	2 (1½)
Private sector regular pay based unit wage costs (ae)	1¾	1¾	9	-2	4¾ (3)	5 (2½)	2¼ (1½)

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

(a) The profiles in this table should be viewed as broadly consistent with the MPC's projections for GDP growth, CPI inflation and unemployment (as presented in the fan charts).
(b) Figures show annual average growth rates unless otherwise stated. Figures in parentheses show the corresponding projections in the February 2022 Monetary Policy Report. Calculations for back data based on ONS data are shown using ONS series identifiers.
(c) Chained-volume measure. Constructed using real GDP growth rates of 188 countries weighted according to their shares in UK exports.
(d) Chained-volume measure. Constructed using real GDP growth rates of 189 countries weighted according to their shares in world GDP using the IMF's purchasing power parity (PPP) weights.
(e) Chained-volume measure. Forecast was finalised before the release of the preliminary flash estimate of euro-area GDP for Q1, so that has not been incorporated.
(f) Chained-volume measure. Forecast was finalised before the release of the advance estimate of US GDP for Q1, so that has not been incorporated.
(g) Chained-volume measure. Constructed using real GDP growth rates of 155 emerging market economy countries, as defined by the IMF WEO, weighted according to their relative shares in world GDP using the IMF's PPP weights.
(h) Chained-volume measure.
(i) Excludes the backcast for GDP.
(j) Chained-volume measure. Includes non-profit institutions serving households. Based on 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. GDP data based on the mode of the MPC's GDP backcast.
(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 is available via the 'Download the chart slides and data' link at **Monetary Policy Report – May 2022**.
(q) Total available household resources, deflated by the consumer expenditure deflator. Based on [RPQK/((ABJQ+HAYE)/(ABJR+HAYO))].
(r) Annual average. Percentage of total available household resources. Based on NRJS.
(s) Level in Q4. Percentage point spread over reference rates. Based on a weighted average of household and corporate loan and deposit spreads over appropriate risk-free rates. Indexed to equal zero in 2007 Q3.
(t) Annual average. Per cent of potential GDP. A negative figure implies output is below potential and a positive figure that it is above.
(u) GDP per hour worked. GDP data based on the mode of the MPC's GDP backcast. Hours worked based on YBUS.
(v) Four-quarter growth in LFS employment in Q4. Based on MGRZ.
(w) Level in Q4. Average weekly hours worked, in main job and second job. Based on YBUS/MGRZ.
(x) LFS unemployment rate in Q4. Based on MGSX.
(y) Level in Q4. Percentage of the 16+ population. Based on MGWG.
(z) Four-quarter inflation rate in Q4.
(aa) Four-quarter inflation rate in Q4 excluding fuel and the impact of MTIC fraud.
(ab) Contribution of fuels and lubricants and gas and electricity prices to four-quarter CPI inflation in Q4.
(ac) Four-quarter growth in whole-economy total pay in Q4. Growth rate since 2001 based on KAB9. Prior to 2001, growth rates are based on historical estimates of 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, based on the mode of the MPC's GDP backcast. 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, based on the mode of the MPC's GDP backcast. Private sector wage costs are average weekly earnings (excluding bonuses) multiplied by private sector employment.

Box A: Monetary policy since the February 2022 Report

At its meeting on 16 March 2022, the MPC voted by a majority of 8–1 to increase Bank Rate by 0.25 percentage points, to 0.75%.

The MPC noted that developments since the February Report were likely to accentuate both the peak in inflation and the adverse impact on activity by intensifying the squeeze on household incomes.

Regarding inflation, the invasion of Ukraine by Russia had led to further large increases in energy and other commodity prices including food prices. It was also likely to exacerbate global supply chain disruptions, and had increased the uncertainty around the economic outlook significantly. Global inflationary pressures would strengthen considerably further over coming months, while growth in economies that were net energy importers, including the United Kingdom, was likely to slow.

Turning to economic activity, UK GDP in January was stronger than expected in the February Report. Business confidence had held up and labour market activity data had remained robust. Consumer confidence had, however, fallen in response to the squeeze on real household disposable incomes. That impact on real aggregate income was likely to be materially larger than implied by the projections in the February Report, consistent with a weaker outlook for growth and employment, all else equal.

Twelve-month CPI inflation had risen from 5.4% in December to 5.5% in January, which triggered the exchange of open letters between the Governor and the Chancellor of the Exchequer, and was published alongside the monetary policy announcement. Inflation was expected to increase further in coming months, to around 8% in 2022 Q2, and perhaps even higher later this year. The projected overshoot of inflation relative to the 2% target to an increasing extent reflected global energy prices, with some further material contribution from tradable goods prices. Service price inflation had also picked up, although to a lesser extent than other components, with core services prices returning to their pre-Covid trend. Underlying nominal earnings growth was estimated to have remained above pre-pandemic rates, and was still expected to strengthen over the coming year.

If sustained, the latest rise in energy futures prices meant that Ofgem's utility price caps could again be substantially higher when they are reset in October 2022. This could temporarily push CPI inflation around the end of this year above the level projected for April, which was previously expected to be the peak. Further out, inflation was expected to fall back materially, as energy prices stopped rising and as the squeeze on real incomes and demand put significant downward pressure on domestically generated inflation. That judgement also reflected that monetary policy would act to ensure that longer-term inflation expectations were well anchored around the 2% target.

Given the tightness of the labour market, continued signs of robust domestic cost and price pressures, and the risk that those pressures would persist, the Committee judged that an increase in Bank Rate of 0.25 percentage points was warranted.

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1. The assumption is that Bank Rate remains at 1% throughout the three years of the forecast period, before moving towards the market path over the subsequent three years.

2: Current economic conditions

Prior to the war, global GDP growth was slightly stronger than expected partly because Omicron weighed on activity by less than predicted. The build up to and subsequent Russian invasion of Ukraine has pushed up commodity prices further, lifted the outlook for global consumer price inflation, and led to a deterioration in the near-term outlook for global growth.

UK economic activity increased in January and February after its Omicron-related fall in December, and the labour market tightened further. Growth is expected to slow in Q2 however, owing to the further fall in real incomes and continuing supply chain disruption. The anticipated fall in Test and Trace spending and the Platinum Jubilee bank holiday are also expected to weigh on growth temporarily. Nevertheless, the unemployment rate is expected to fall further to 3.6% in Q2 as the number of vacancies remains historically high.

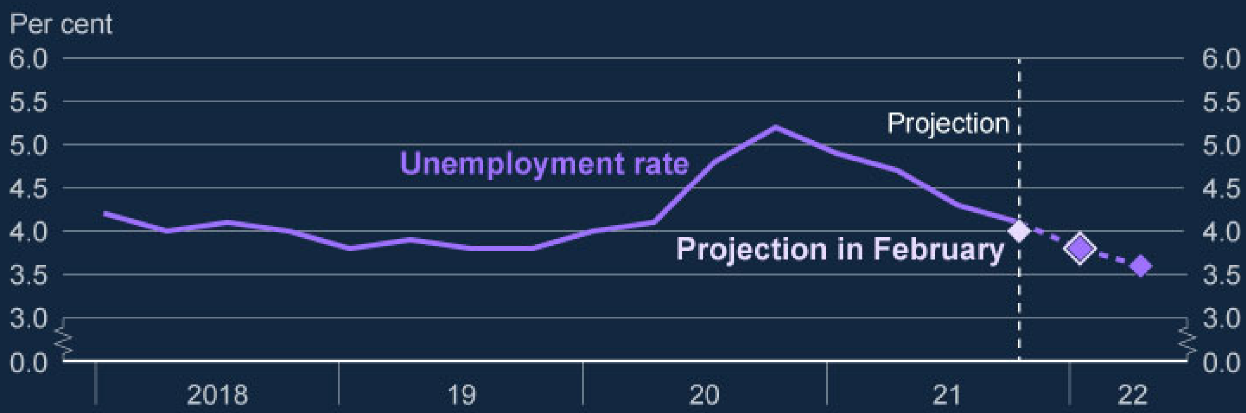
CPI inflation was 7% in March, in large part reflecting higher global energy and tradable goods prices. It is expected to rise to 9.1% in April, as the 54% increase in the Ofgem energy price cap takes effect. Inflation is expected to remain high beyond April, predominantly reflecting elevated goods prices due to continuing bottlenecks and the inflationary effects of Russia's invasion of Ukraine on food and petrol prices, but also wage pressures feeding through to services prices. If energy futures prices remain elevated through the summer, inflation is likely to rise further when the Ofgem caps are reset in October, potentially to in excess of 10% towards the end of the year.

Chart 2.1: GDP growth is expected to slow in Q2, unemployment is projected to decline further, and inflation is expected to rise sharply

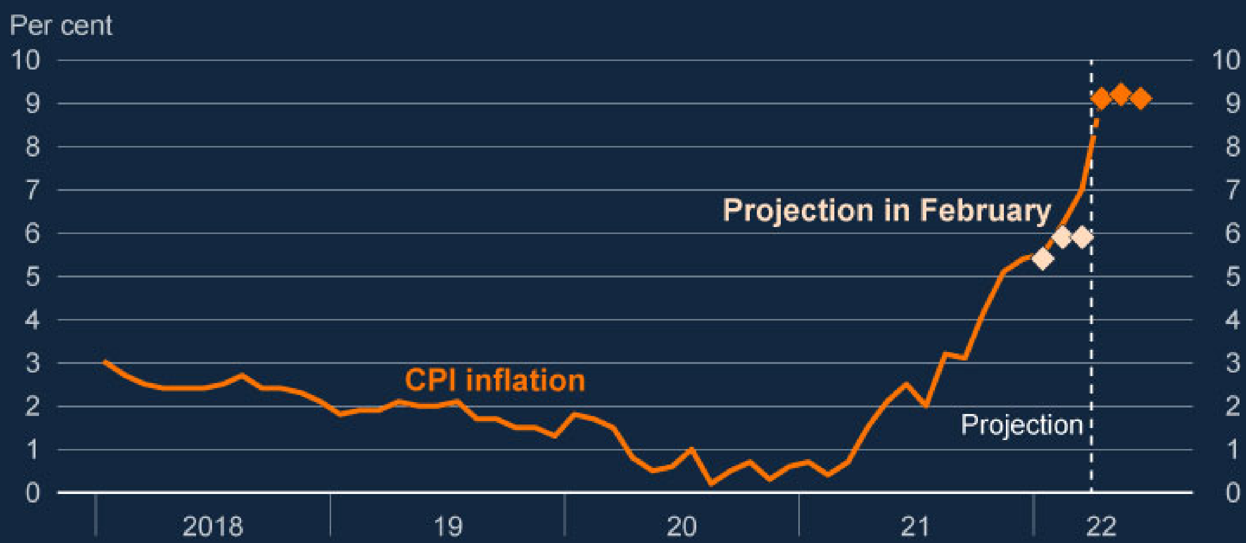
Near-term projections (a) (b)

2022 Q1: 0.9% **2022 Q2:** 0.1%

2022 Q1: 3.8% **2022 Q2:** 3.6%



2022 Q1: 6.2% **2022 Q2:** 9.1%



Sources: ONS and Bank calculations.

(a) The lighter diamonds show Bank staff's projections at the time of the February 2022 Monetary Policy Report. The darker diamonds show Bank staff's current projections. Projections for GDP and the unemployment rate are quarterly and show Q1 and Q2 (February projections show Q4 and Q1). Projections for CPI inflation are monthly and show April to June (February projections show January to March).
(b) GDP and unemployment rate 2022 Q1 projections are based on official data to February. CPI inflation figure is an outturn.

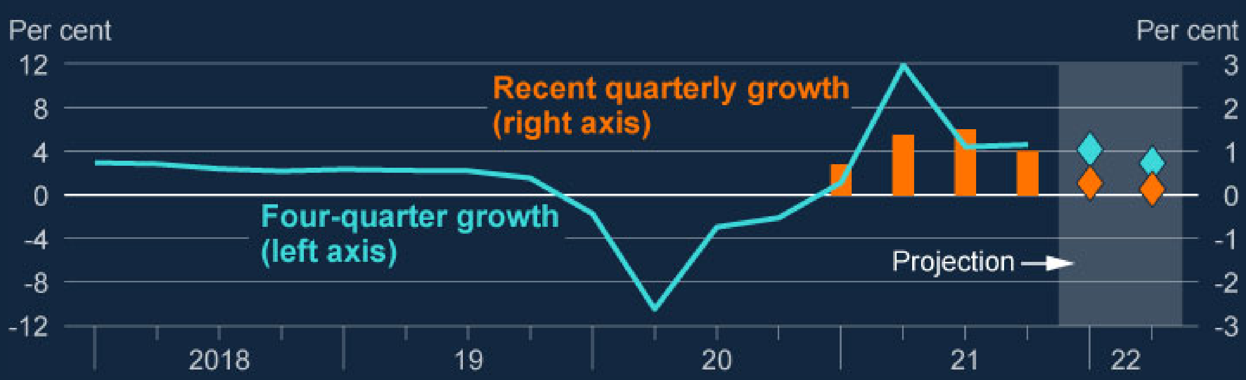
2.1: Global developments and financial conditions

Prior to the invasion, global activity was growing a little faster than expected in the February Report…

UK-weighted world GDP is expected to have grown by 0.3% in Q1 (Chart 2.2), slower than the 1% growth in the previous quarter, but slightly stronger than projected in the February Report. In Q1, the Omicron variant appears to have had a more benign impact on global activity than expected, as global activity and trade flows benefited from the need for fewer mitigation actions owing to more widespread vaccination compared to previous waves of the virus. Better-than-expected growth has been spread across advanced and emerging economies.

Chart 2.2: Global GDP growth is expected to slow materially in the first half of 2022

UK-weighted world GDP growth (a)



Sources: Refinitiv Eikon from LSEG and Bank calculations.

(a) See footnote (c) of Table 1.C for definition. Figures for 2022 Q1 and Q2 are Bank staff projections.

…labour markets in the UK's main trading partners were tightening…

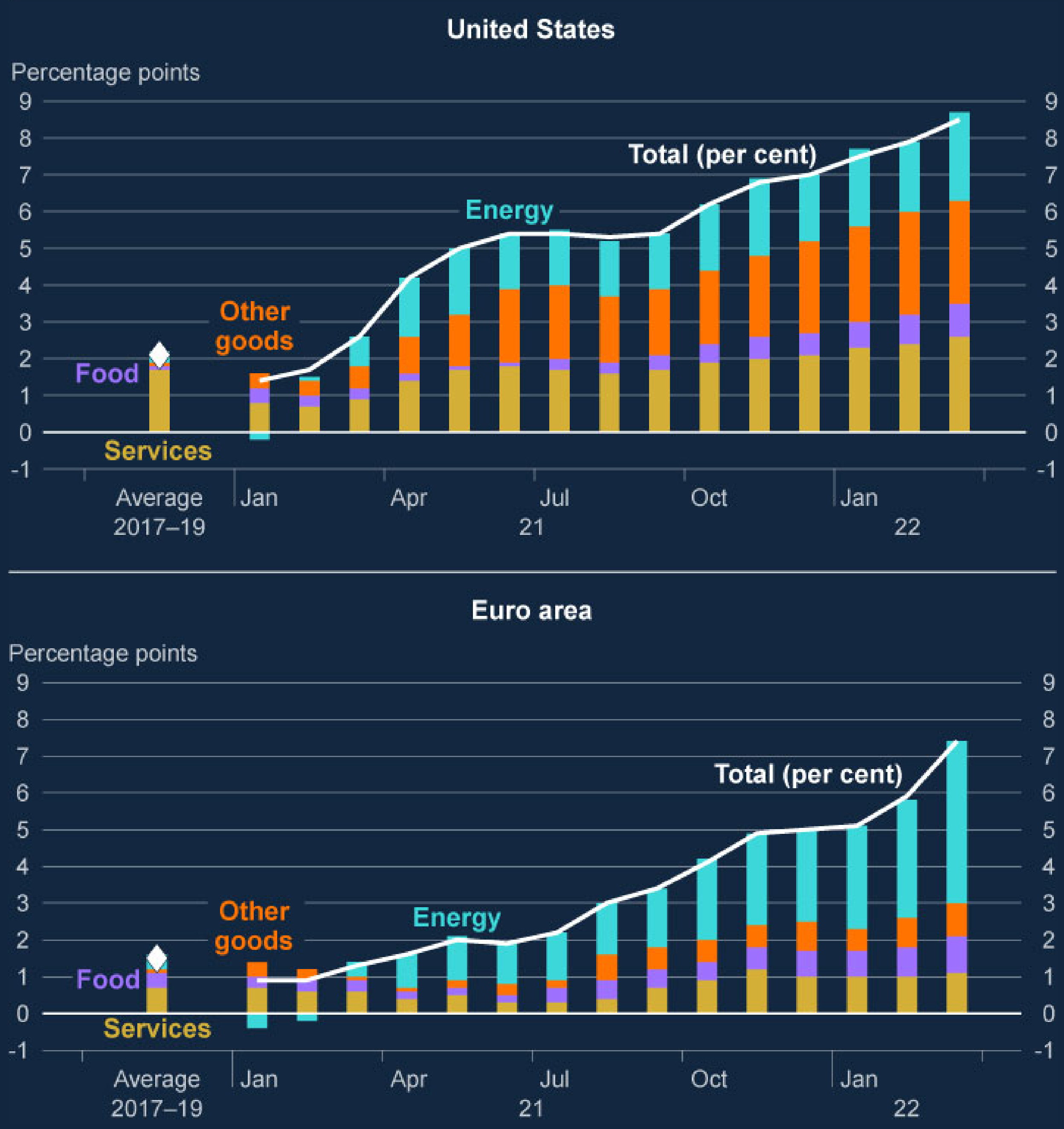
Labour markets have tightened in advanced economies. The US and euro-area unemployment rates fell to 3.6% and 6.8% in March and February respectively. The number of job vacancies increased across both the United States and European countries. As a result, the number of vacancies per person unemployed – a measure of labour market tightness – increased further to historically high levels.

…wage inflation was picking up in some advanced economies…

Indicators of wage growth rose in some advanced economies. In the US, the Federal Reserve Bank of Atlanta's Wage Growth Tracker, which is less affected by compositional effects than headline measures, increased to a record high of 6% in March. In the euro area, wage growth has been moderate: negotiated wages grew by 1.6% in the year to 2021 Q4.

Chart 2.3: Inflation has picked up sharply in the US and euro area

Contributions to annual CPI inflation (a)



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

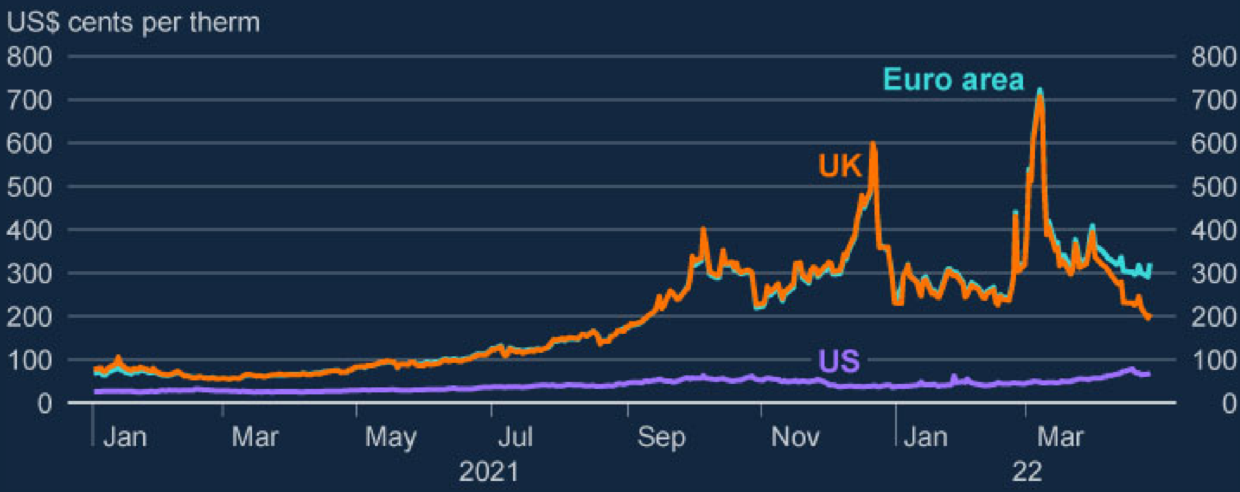
(a) Latest data to March 2022. Food includes non-alcoholic beverages, alcohol and tobacco. US energy includes fuel oil and other fuels, energy services and motor fuel. Euro-area energy includes electricity, gas, solid fuels and heat energy, liquid fuels and fuel and lubricants for personal transport equipment. Series may not sum to total due to rounding.

…and inflation had risen sharply.

As in the UK, inflation in the US and euro area has risen sharply. In March, euro-area HICP inflation rose to a record high of 7.4%. The large majority of the rise in euro-area inflation since early 2021 is accounted for by energy prices (Chart 2.3). The rise in US CPI inflation to 8.5% in March has been more broad-based. Energy prices have increased, but by less than in Europe owing to the smaller increase in US wholesale gas prices (Chart 2.4), reflecting the segmentation of the global gas market. Pressures on goods prices from bottlenecks have been particularly acute in the US, and services inflation has also increased as the labour market tightened. Headline PCE inflation in the US increased to 6.6% in March.

Chart 2.4: Wholesale gas prices have increased much more in Europe than the US

International wholesale gas prices (a)



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

(a) Data to 26 April. The Dutch Title Transfer Facility pricing point is used for the euro-area price.

The rise in inflation in advanced economies over the past year has been accompanied by a steady pickup in measures of medium-term inflation expectations derived from financial markets (Chart 2.5). These are now slightly above their 2010–19 average in the US, and somewhat further above their averages in the euro area and UK. The UK measures have been above their averages for some time.

Chart 2.5: Medium-term measures of inflation expectations have increased

Financial market measures of inflation compensation (a) (b)

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

(a) Five-year inflation, five years ahead and two-year inflation, five years ahead, derived from swaps. The instruments are linked to the UK RPI, US CPI and euro-area HICP measures of inflation respectively.
(b) UK RPI is due to be aligned with CPIH from February 2030, which will affect the pricing of this measure. Since 2000, annual CPIH inflation has averaged 85 basis points lower than RPI inflation.

The Russian invasion of Ukraine has led to a sharp rise in commodity prices…

The build up to and subsequent Russian invasion of Ukraine in late February led to a further rise in commodity prices. Oil, gas, food and other raw material prices have increased materially (see Box B and Section 3). This has put upward pressure on goods, utility, food and fuel prices.

…and, in addition to Covid-related lockdowns in China, has exacerbated disruptions to supply chains.

As discussed in Box B of the **February 2022 Report**, disruption to global supply chains, in part caused by the US driven shift in consumption towards durable goods, had put upward pressure on goods prices last year. These disruptions were expected to ease in 2022. But the war has exacerbated global shortages of some tradable goods (Box B). Supply chains have been disrupted further as the Chinese authorities have sought to contain their worst outbreak of Covid cases since early 2020, with strict restrictions introduced in several Chinese cities. An estimate of supply constraints, derived from a range of purchasing managers' indices such as delivery times and stocks of finished goods, has risen in China since the start of the year (Chart B in Box B).

These are expected to raise inflation across countries in the near term…

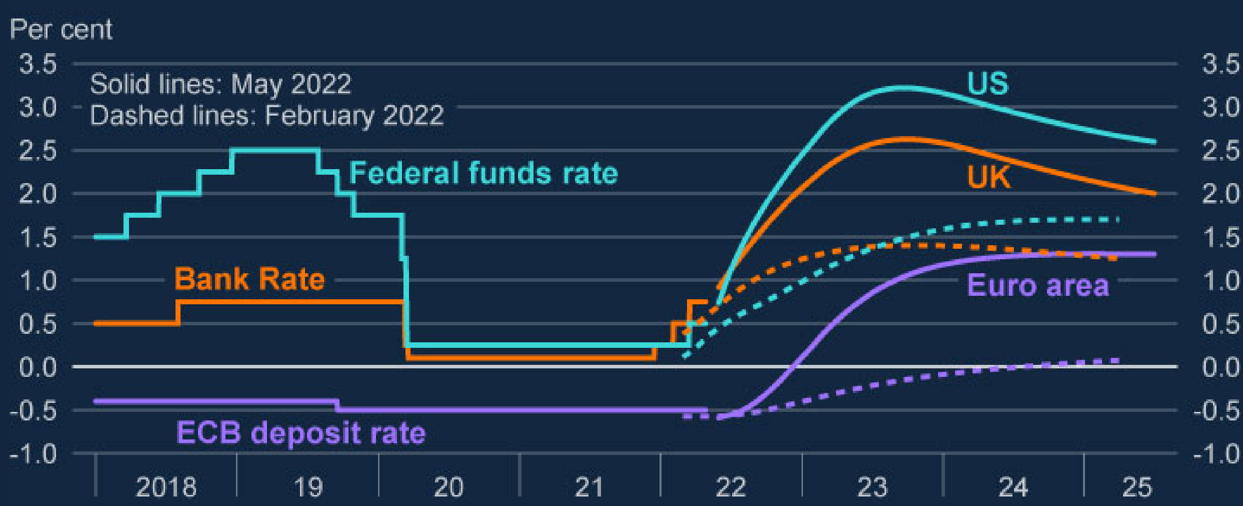
The effects of the war, and restrictions in China, mean that global price inflation is expected to be much higher than previously expected in the near term. This mainly reflects higher energy prices, although higher food and goods prices are also a factor. Higher energy prices are particularly being felt in the euro area, where gas prices have risen most, with consumer price inflation expected to rise to over 7% on average in Q2. The rise in energy prices and upward pressure on goods prices is expected to keep US inflation elevated in Q2.

…and have resulted in a deterioration in the near-term outlook for global growth.

Bank staff project that UK-weighted world GDP will grow by 0.1% in Q2, compared to 1.2% in the previous Report (Chart 2.2). The projected large rise in costs relative to the last Report is the primary cause of the downward revision in growth. Demand is expected to weaken as higher inflation reduces household real incomes and consumer spending, with the euro area and emerging economies particularly hard hit. Growth in emerging economies is also expected to be dragged down by deep recessions in Russia and Ukraine. GDP growth is expected to be weaker in the US and China, despite these economies' lower exposure to the energy price rises caused by the war. Tighter financial conditions, partly due to the higher market-implied path for US policy rates, drags on US growth in the near term, while growth in China weakens as Covid lockdowns reduce activity.

Chart 2.6: Market participants' expectations for policy rates are higher than in February

International forward interest rates (a) (b)



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

(a) All data as of 26 April 2022. The May and February curves are estimated using instantaneous forward overnight swap rates in the 15 working days to 26 April 2022 and 26 January 2022 respectively.
(b) Federal funds rate is the upper bound of the target range.

Some central banks have tightened monetary policy since the last Report…

Some central banks have continued to tighten monetary policy. In the US, the FOMC ended net asset purchases in March and increased the target range for the federal funds rate to 0.25%–0.50%. At its March meeting, the ECB Governing Council left its key policy interest rates unchanged but announced a faster reduction in the pace of net asset purchases. The MPC voted to increase Bank Rate by 25 basis points, to 0.75%, at its March meeting. The stock of purchased assets has fallen slightly since February, reflecting the MPC's previous decision to cease reinvesting maturing assets.

…and market-implied expectations of policy rates have risen significantly.

Market-implied expectations of policy rates have risen further since the February Report (Chart 2.6). On average, expected US policy rates are around 140 basis points higher over the next three years with a peak of around 3.2% in 2023.

Expected policy rates in the euro area are up by around 100 basis points with a peak of around 1.3% in 2024.

In the UK, the market-implied path for Bank Rate rises to around 2% by the end of this year with a peak of over 2.5% in 2023. On average, it is around 100 basis points higher over the next three years than in the run up to the February Report. This market-implied path for Bank Rate is higher than the expectations of respondents to the latest Market Participants Survey.

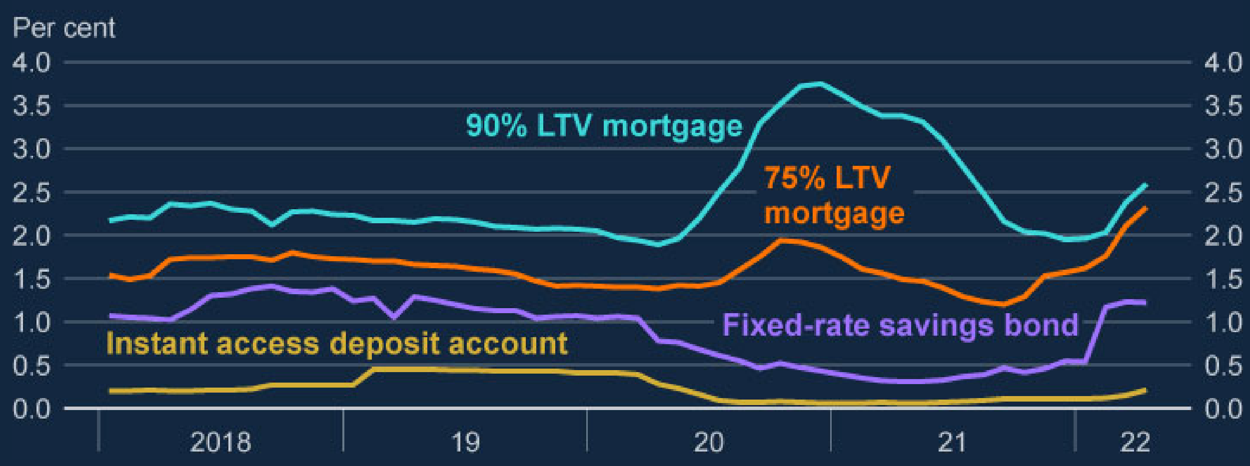
Longer-term interest rates have also increased sharply. Yields on 10-year government bonds are between 60 and 100 basis points higher in the UK, Germany and the US than at the time of the February Report. This follows a steady rise in these rates since last summer that has left them at their highest level for several years.

Global equity prices have declined since the last Report.

Global equity indices are lower than at the time of the February Report, reflecting the deterioration in the outlook for global growth and the rise in expected interest rates. The S&P 500 and Euro Stoxx are around 3% and 8% lower respectively, while the MSCI Emerging Market and Shanghai Composite indices are both around 11% lower. In contrast, the FTSE All-Share is just 0.6% lower, in part due to the composition of the index, which contains more companies that will benefit from the recent rise in commodity prices. While below the levels seen in the lead up to the last Report, global equity prices have recovered from the falls that occurred immediately after the invasion.

Chart 2.7: Interest rates on UK mortgage and savings products have risen

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



Source: Bank of England.

(a) The Bank's quoted rates series are weighted monthly average rates advertised by all UK banks and building societies with products meeting the specific criteria. In February 2019 the method used to calculate these data was changed. For more information, see '**Introduction of new Quoted Rates data – Bankstats article**'. Latest quoted rates data are flash estimates for April using data to 26 April and are subject to change until publication on 9 May.

Interest rates on new mortgage lending in the UK have risen since the last Report…

Quoted rates on mortgages have increased across all LTVs since the last Report, reflecting the pass-through of higher risk-free rates. The quoted rate on a 75% LTV mortgage has risen by around 70 basis points since January, while the rate on a 90% LTV mortgage is up by 65 basis points (Chart 2.7).

Quoted rates on deposits have also increased. The quoted rate on a two-year fixed-rate bond rose by around 70 basis points between January and April, although the rate on instant access deposits increased by much less, with a rise of around 10 basis points (Chart 2.7). On average, the interest paid on deposits has risen by less than the interest charged on new lending since January, suggesting that banks' net interest rate margins on new lending have increased.

…although the effective interest rate on the stock of outstanding mortgage debt is unchanged.

The average effective interest rate on the stock of outstanding mortgages is around 2.0%, broadly unchanged since the last Report. Over 80% of the stock of mortgages, by value, have an interest rate that is fixed for an initial period. These borrowers will not experience changes in the interest they pay until the end of their fixed period. The roughly 20% of mortgage holders on a variable rate will see an increase in their repayments as a result of higher interest rates (see Box C in the **February Report**).

The cost of corporate borrowing in the UK has increased since the last Report.

Corporate borrowing costs have increased since the February Report. Spreads on sterling investment-grade and high-yield corporate debt have increased by around 30 and 85 basis points respectively since the start of the year, although this rise is much lower than occurred in the early stages of the pandemic (Chart 2.8). Interest rates on new bank lending to companies have also increased. Rates on new lending to PNFCs and SMEs rose by around 90 and 110 basis points respectively between January and March this year, and are now slightly above their 2019 levels. Contacts of the Bank's Agents report that while larger firms' ability to access credit is broadly unchanged, credit conditions have tightened slightly for smaller firms since January.

Chart 2.8: Sterling corporate bond spreads have risen since the start of the year

Sterling non-financial corporate bond spreads (a)

Source: ICE/BoAML.

(a) All data as of 26 April 2022. Option-adjusted spreads on government bond yields. Investment-grade corporate bond yields are calculated using an index of bonds with a rating of BBB3 or above. High-yield corporate bond yields are calculated using aggregate indices of bonds rated lower than BBB3. Due to monthly index rebalancing, movements in yields at the end of each month might reflect changes in the population of securities within the indices.

2.2: Domestic activity and the labour market

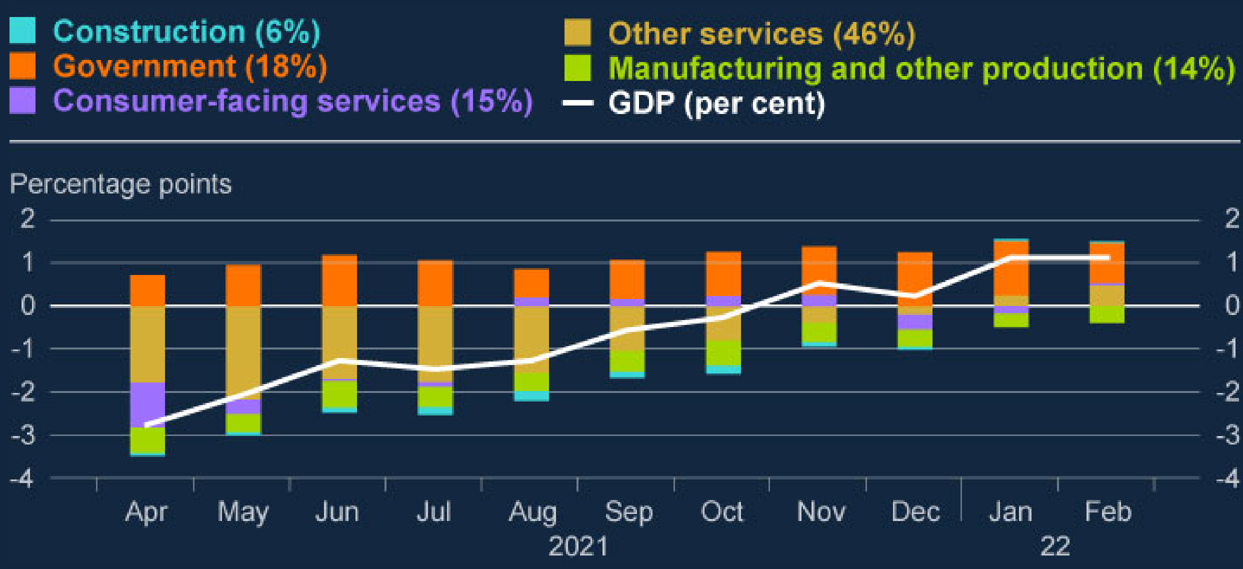
Prior to Russia's invasion of Ukraine, UK GDP growth had been stronger than expected in the February Report…

After falling in December, as expected, UK GDP grew by 0.8% in January, stronger than projected in the February Report (Chart 2.9). The recovery in consumer-facing services from its Omicron-related fall was broadly in line with expectations in February. But there was continued strength in other non-Covid related activity. And although growth slowed to 0.1% in February, that reflected a fall in government spending on Test and Trace, as the Omicron wave receded.

Over Q1 as a whole, Bank staff expect GDP to have grown by 0.9%, stronger than the February Report projection for a flat quarterly outturn. That reflects an expectation that the underlying strength in activity outside sectors most affected by Covid persisted through the quarter, aided by the further relaxation in Covid measures announced in January and February.

Chart 2.9: GDP was 1.1% above its pre-pandemic level in February

Contributions to change in monthly GDP since 2019 Q4 (a) (b) (c)



Sources: ONS and Bank calculations.

(a) Figures in parentheses are weights in gross value added in 2019. Weights and contributions may not sum to the total due to rounding.
(b) Other production includes agriculture, mining and quarrying, and utilities.
(c) Consumer-facing services includes accommodation and food services, arts, entertainment and recreation, and wholesale and retail.

…and global supply chain pressures had appeared to be easing a little…

GDP and survey data had suggested that supply chain pressures were weighing less on activity in the early part of the year. Manufacturing and other production output grew for the third consecutive month in January (Chart 2.9). Purchasing managers' indices (PMIs) of manufacturing backlogs fell below the 50 'no change' mark in February for the first time since 2020 (Chart 2.10). And the index for manufacturing delivery times had also improved in recent months to its highest level since late 2020, implying delivery times were rising at a slower pace.

…but recent events are likely to have led to a worsening in supply chain disruption.

However, these data largely precede recent Omicron-related lockdowns in China and Russia's invasion of Ukraine, meaning that supply chain disruption is likely to have deteriorated more recently. Intelligence from the Bank's Agency network suggests that shortages of semiconductors have been exacerbated by recent lockdowns in China. Contacts also reported difficulties in obtaining components and other inputs owing to the war in Ukraine, and were seeking alternative suppliers or running down existing stockpiles to support output. The most recent ONS data show that manufacturing output fell back in February, and the PMI manufacturing output index fell to a five-month low in March, before recovering a little in April.

Chart 2.10: Surveys suggested supply constraints were beginning to ease around the turn of the year

Surveys of supply constraints (a)

Source: S&P Global/CIPS.

(a) A reading of above 50 indicates positive change on the previous month while a reading below 50 indicates negative change. Data for April 2022 are flash estimates. Services backlogs refers to 'Outstanding business' series, and manufacturing backlogs refers to 'Backlogs of work' series.

Despite that deterioration, business confidence and labour demand remain robust…

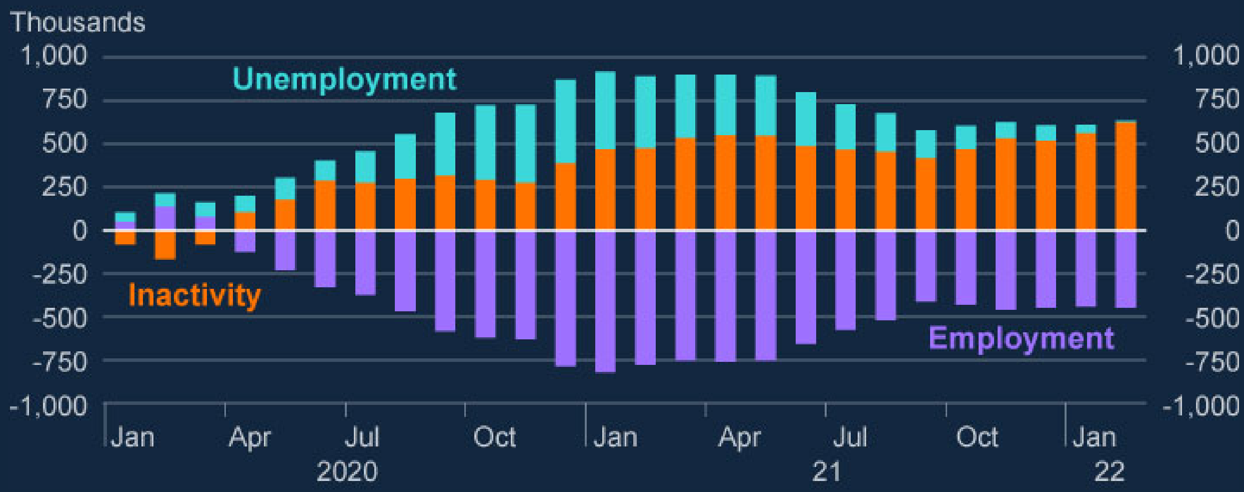
Despite some recent deterioration, a range of business surveys continue to suggest robust output growth in the near term. That is consistent with surveys of employment intentions, which continue to point to elevated rates of employment growth. And intelligence from the Bank's Agency network also suggests there are few signs that firms' employment intentions are slowing.

…and together with the large number of people remaining inactive in the labour market…

There are over 600,000 more people inactive in the labour market – those without a job and not actively searching for one – compared to before the pandemic (Chart 2.11). Bank staff estimate that around a third of the rise in inactivity is related to the ageing of the UK population and accompanying retirement of workers, which implies at least some of the rise may persist. Consistent with that, it appears that the flow from employment to inactivity has remained at elevated levels. This flow has been relatively insensitive to the economic cycle in the past, also suggesting that the current rise in inactivity could prove more persistent. That would contribute to labour market tightness in the near term, as there are fewer people available to work.

Chart 2.11: Inactivity remains markedly higher than before the pandemic

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



Sources: ONS and Bank calculations.

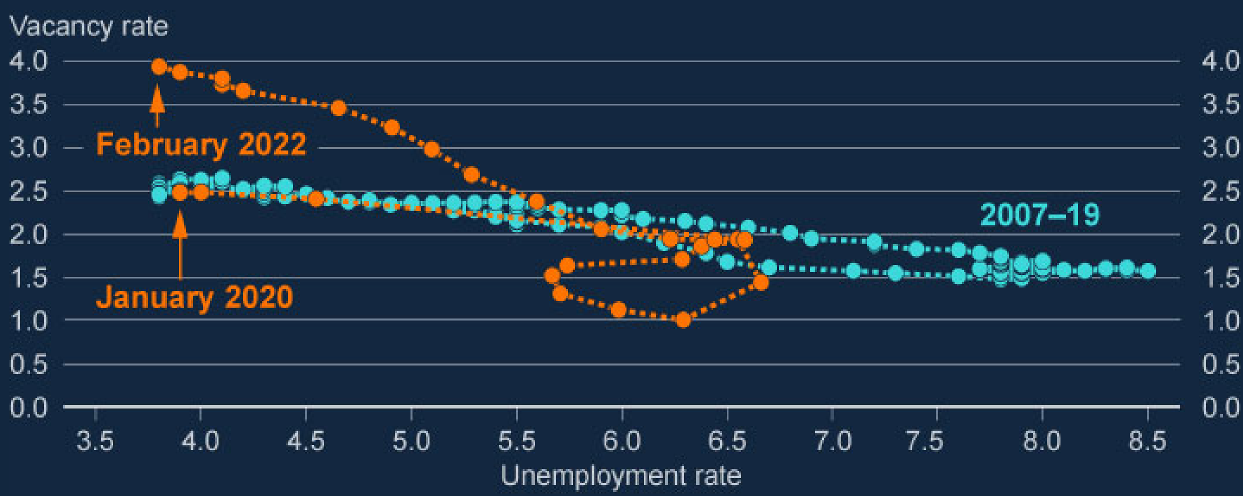
(a) Data from the LFS. Employment includes employees and self-employed. Changes do not sum to 0 as the population is estimated to have increased during the period.

…the labour market has tightened further since the last Report, with job vacancies reaching a new record high.

The labour market has tightened further since the February Report. Job vacancies reached a new record high in the three months to February, and the unemployment rate fell to 3.8% at the same time. The Beveridge curve (Chart 2.12), which plots the vacancy rate against the unemployment rate, shows that although unemployment is currently around the same level as in January 2020, there are now many more unfilled vacancies (**Haskel (2021)**). As discussed in previous Reports, some frictions in the matching of workers to available jobs, and the persistent rise in inactivity, may have played a role in that. At present, there are almost as many vacancies in the UK as there are people searching for work. That suggests unemployment is likely to continue to fall over coming months.

Chart 2.12: The labour market has tightened further

Vacancy rate and unemployment rate (a) (b)



Sources: HMRC, ONS and Bank calculations.

(a) Three-month moving averages. Latest data point from the Labour Force Survey is for the three months to February 2022. Vacancy rate is the number of vacancies divided by total employment.
(b) For the 2020–22 cycle, this includes the MPC assumption that 10% of those furloughed were actively searching for work and therefore are included in unemployment for the purposes of this chart.

As expected in February, real incomes have started to fall…

Four-quarter growth in real household disposable income turned negative in the second half of 2021 (Chart 2.13). In the February Report, Bank staff expected this squeeze to intensify in 2022, as the rise in the Ofgem price caps reduced real incomes further.

…and the effects of Russia's invasion of Ukraine will intensify the squeeze over the coming months by more than expected in February, despite government support.

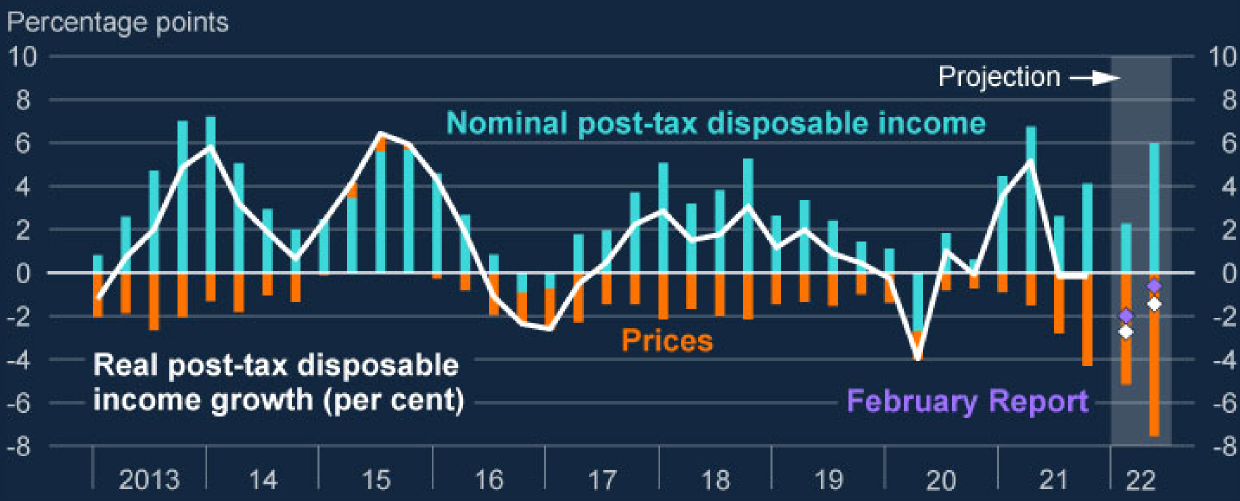
The inflationary effects of Russia's invasion of Ukraine (see Section 2.3 and Box B) mean the outlook for real incomes has worsened further since February (Chart 2.13). Real household disposable income is expected to fall by 1¾% in 2022, half a percentage point more than projected in February.

Recently announced government policies will provide some support to household incomes in the near term. The Energy Bills Rebate, announced in February, will boost household incomes in 2022 via a £150 Council Tax rebate for around 80% of households in April and a £200 rebate on energy bills for all households in October (to be repaid over the following five years).

Measures announced in the Spring Statement, including a 5p cut in fuel duty, a higher income threshold at which National Insurance contributions start being paid, and a cut in income tax in 2024, will provide some further support for household incomes over the forecast horizon. In total, fiscal measures announced since the February Report are expected to raise the level of GDP by a peak of around ½% over the forecast period.

Chart 2.13: Real incomes are projected to fall by more than expected in February

Contributions to four-quarter real disposable income growth (a) (b)



Sources: ONS and Bank calculations.

(a) Diamonds show Bank staff projections for 2022 Q1 and 2022 Q2. Bars may not sum to total due to rounding. Purple diamonds show equivalent projections in the February Report. Income includes non-profit institutions serving households.
(b) See footnote (q) in Table 1.C for the definition of real post-tax disposable income.

Consumer confidence has fallen sharply, probably reflecting the fall in real incomes.

The GfK consumer confidence index fell in April for the fifth month in a row to a near-record low. The recent fall in the overall index has been driven in part by a sharp fall in the 'personal financial situation over the next 12 months' sub-index, from a post-financial crisis high last summer, to a record low in April. This series has historically been well correlated with a measure of real labour income growth (Chart 2.14) that accounts for pay, prices, taxes and transfers (see footnote (p) in Table 1.C). This measure is expected to fall by 3¼% in 2022, 1¼ percentage points more than projected in February. In that context, the recent fall in confidence probably reflects the recent and expected further fall in real labour incomes.

Chart 2.14: Consumer confidence has fallen sharply, in line with real labour income

Consumer confidence and four-quarter real labour income growth (a) (b) (c)

Sources: GfK, ONS and Bank calculations.

(a) Diamonds show Bank staff projections for real post-tax labour income growth for 2022 Q1 and Q2.
(b) See footnote (p) in Table 1.C for the definition of real post-tax labour income.
(c) Consumer confidence is the GfK Personal Financial Situation over next 12 months. Latest data point is for April, with the survey conducted between 1–13 April. Not seasonally adjusted.

There are some signs that higher prices are affecting real spending…

Retail sales volumes have weakened over recent months (Chart 2.15). While that weakening may reflect some element of a rotation back towards spending on services (see Box B in the **February Report**), it seems more likely to reflect the real income squeeze: the nominal value of sales has remained stable throughout the period, with the counterpart to higher retail goods prices being lower volumes. Retail sales volumes may continue to be depressed as real incomes fall further after April. Underlining these risks, data from the ONS Opinion and Lifestyle Survey in late March suggest that 87% of people had seen their cost of living increase over the previous month. Of those, 54% said they were cutting back on non-essentials in response, and 33% said they were buying fewer essentials, including food.

Chart 2.15: Retail sales volumes are drifting lower, as prices rise

Changes in nominal and real retail sales since 2019 Q4 (a)

Sources: ONS and Bank calculations.

(a) Monthly data to March 2022. All in-store and online retailing including automotive fuel, excluding utilities. Nominal refers to the value of sales and real refers to the volume of sales.

…and how households respond will be important for the outlook.

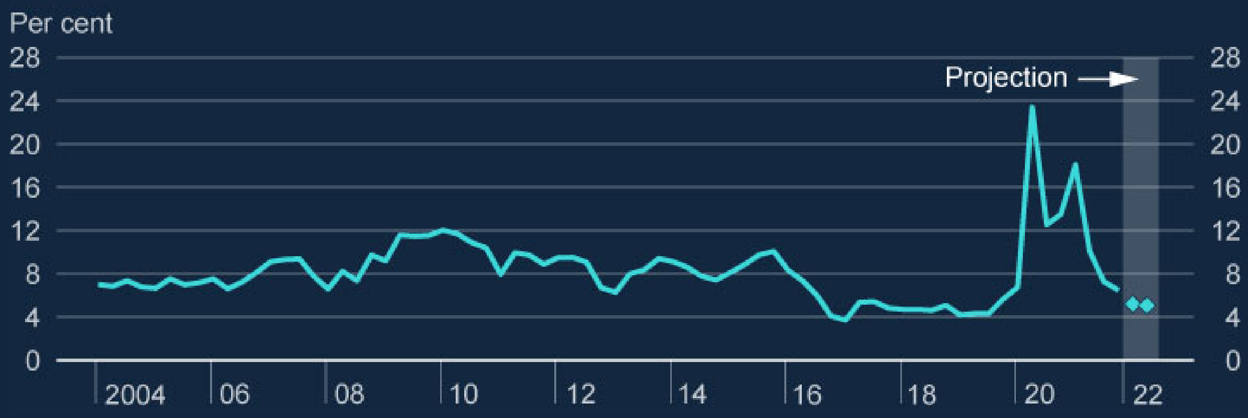
The near-term outlook is heavily dependent on how households are able to respond to the scale of the real income squeeze.

On the one hand, past experience suggests that households may be able to offset the fall in real incomes to some extent by saving less. After the EU referendum in 2016, the increase in inflation due to sterling's depreciation led to a temporary fall in real incomes. In response, the household savings rate fell from around 9% to around 5% (Chart 2.16), suggesting households felt able to smooth their spending by reducing their saving. In the current conjuncture, households may feel more confident about saving less given the tightness of the labour market, the strength in indicators of job security, and the fact that many households accumulated savings earlier in the pandemic. Indeed, the savings rate is projected to continue its recent decline in the near term (Chart 2.16), in part as households run down some of those savings (see Section 3 in the **February 2021 Report**). If households run down more of those previously accumulated savings that would further support spending. In the latest Bank/NMG survey (see Section 3), 'saving less' and 'using existing savings' were the most popular answers to a question asking respondents how they would pay for extra spending due to higher inflation.

On the other hand, the distribution of those savings built up over the pandemic is skewed towards richer households, who typically spend a lower share of their income. Recent Bank staff research suggests that households who tend to be more concerned about not being able to pay their usual bills and expenses in future typically spend around 20% more of unexpected income gains than those who are unconcerned. And there is some evidence that these larger spending responses of concerned households may hold for income falls, as well as gains (**Alberquerque and Green (2022)**). Since these households are less likely to have built up savings during the pandemic, they may be less able to maintain their spending.

Chart 2.16: Households are expected to save less over the next few months

Household saving rate (a)



(a) Saving as a percentage of household post-tax income. Includes non-profit institutions services households. Data to 2021 Q4. Diamonds show Bank staff projections for 2022 Q1 and Q2.

Business investment remains weak, in contrast to the strength in firms' hiring.

The weakness of business investment is in contrast to both the strength in firms' hiring decisions and their investment intentions as reported to the Bank's Agency network. Uptake of the Government's super-deduction for plant and machinery investment appears to have been lower than expected in recent Reports, perhaps in part due to supply chain disruption. Over the period it remains in place, Bank staff continue to expect it to raise investment, albeit to a lesser extent than expected in February, consistent with the OBR's latest assessment.

Recent geopolitical uncertainty is also likely to be weighing on investment intentions. The April Decision Maker Panel (DMP) Survey results suggested that Russia's invasion of Ukraine is a key new source of uncertainty for many firms (see Box B). But at the same time, uncertainty around Covid continues to fade such that overall uncertainty, as measured by the DMP Survey, is little changed since the February Report.

Overall, GDP growth is expected to slow to 0.1% in Q2, and the unemployment rate to decline further to 3.6%.

GDP growth is expected to slow to 0.1% in Q2 (Chart 2.1) as the real income squeeze weighs on consumption, and some adverse effects from Russia's invasion of Ukraine are felt through supply chains. Growth is also expected to be weaker due to a fall in government consumption in Q2, as Test and Trace spending falls in line with the Government's 'Living With Covid' plan. And the timing of the additional bank holiday for the Platinum Jubilee is expected to reduce growth temporarily by ¼ percentage points, with an equivalent boost expected in the following quarter.

While output growth is expected to slow in part due to temporary factors, employment growth is expected to pick up in Q2. That reflects the usual lag from output to the labour market, as well as the underlying strength in GDP. Alongside growing employment, unemployment is expected to fall further to 3.6% in Q2 (Chart 2.1). Inactivity is expected to be broadly flat. Given the tight and tightening labour market, and above-average levels of capacity utilisation suggested by some surveys, there is judged to be around ½% of excess demand in Q2, around half a percentage point more than expected in February. However, as has been the case during the pandemic, there remains uncertainty around that estimate since both demand and supply are responding to the shocks currently hitting the UK economy.

Beyond Q2, growth is likely to be subdued.

While the path for the economy beyond Q2 is uncertain, growth is expected to be subdued. Households are likely to face a prolonged real income squeeze given the likely path of energy prices (see Section 2.3 and Section 3). Companies face a period of uncertainty around Russia's invasion of Ukraine (see Box B), continued supply constraints, and rising costs. The strength in hiring suggests that firms are optimistic about the outlook, but that contrasts with continued weakness in investment. The support from fiscal policy over recent years is set to wane and begin to weigh on growth. Taking all of these factors together, it is likely that growth remains subdued beyond Q2, the labour market begins to loosen, and a margin of spare capacity in the economy emerges (see Section 1).

2.3: Wages and inflation

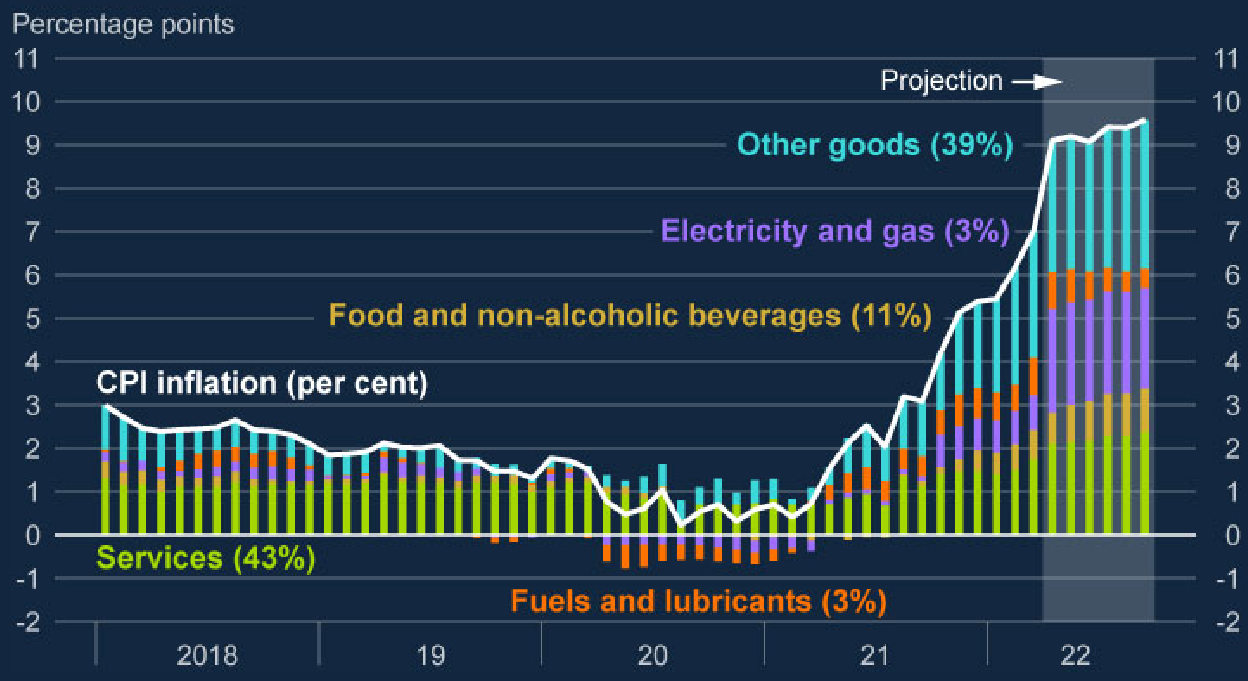
CPI inflation rose to 7% in March, driven by goods and energy prices…

CPI inflation was 7% in March (Chart 2.17), higher than expected in the February Report. Core CPI inflation – which strips out energy and other volatile items – rose to 5.7%, also above expectations in February. Inflation outturns across many countries have recently been higher than expected (see Section 2.1).

Goods and energy price inflation together accounted for around 80% of the overshoot of CPI inflation in March relative to the MPC's 2% target. That continues to reflect in large part bottlenecks for tradable goods (see Box B in the **February Report**) and the rise in energy prices since the middle of 2021 (see Section 3). And recent developments have exacerbated both of those factors, including the effects of renewed Covid restrictions in China, and the impact of Russia's invasion of Ukraine on energy prices.

Chart 2.17: CPI inflation was 7% in March, and is expected to be above 9% over Q2 and Q3

Contributions to CPI inflation (a) (b) (c)



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

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

…and although higher inflation has more recently broadened out to services…

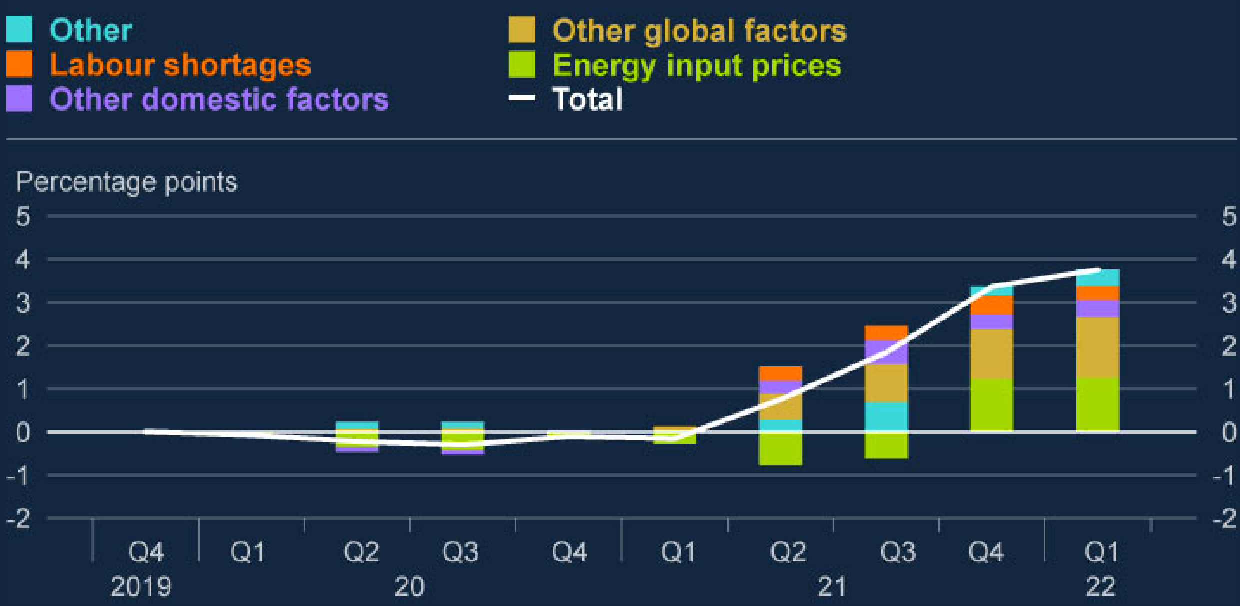
Higher inflation has also broadened out into services more recently. Core services inflation, which focuses on a subset of the CPI basket that is largely domestically produced, rose to 3.9% in March, 0.2 percentage points higher than expected in February. That is expected to rise further to around 5% over the near term.

…the majority of the pick-up since the pandemic is due to global factors.

Staff analysis of responses to the Bank's DMP Survey suggests that firms attribute around 70% of the pickup in their own price growth since 2019 Q4 to global factors (Chart 2.18). Energy input prices and other global factors, such as supply shortages and shipping costs, provide the largest contributions according to firms. But there remains a role for domestic factors, including the effects of labour shortages, consistent with the continued tightening in the labour market.

Chart 2.18: Firms in the DMP Survey attribute the majority of the pickup in inflation to global factors

Contributions to changes in firms' realised price inflation since 2019 Q4 (a) (b)



Sources: DMP Survey and Bank calculations.

(a) Contributions are derived from firm-level regressions using DMP response data. Based on the question: 'Looking back, from 12 months ago to now, what was the approximate percentage change in the average price you charge, considering all products and services?'.

(b) Other domestic factors includes Covid effects on demand and costs. Other external factors includes supply shortages, import prices and Brexit costs.

The pickup in services inflation may reflect recent strength in pay growth…

Pay growth has continued to strengthen in line with the sustained tightening in the labour market (Section 2.2). Whole-economy average weekly earnings growth rose to 5.4% in the three months to February relative to a year ago, partly reflecting strength in bonuses. Private sector regular pay growth – which excludes bonuses – also rose, to 4.5%, stronger than expected in February. That translates to growth in Bank staff's estimate of underlying pay, which strips out estimates of compositional and furlough effects (see Section 3 in the **February Report**), of around 4% (Chart 2.19). Since labour costs tend to make up a large proportion of costs for service sector firms, it is likely that the strength in pay growth can explain some of the recent rises in services inflation.Indicators of pay growth are above pre-Covid levels (Chart 2.19). HMRC data suggest that median pay growth – which is less affected by compositional effects – had already reached 5% in the three months to March. The KMPG/REC UK Report on Jobs permanent salaries index rose in February, close to its peak reached late last year. And the percentage of firms expecting pay growth of 3% or higher over the next 12 months in the Lloyds Business Barometer survey remains elevated, at over twice its pre-Covid level. These indicators are consistent with the latest Agency intelligence, which suggests that upside risks to February's Pay Survey results are emerging, in part due to many firms needing to grant larger pay awards to retain and recruit staff given the sharp rise in CPI inflation in a tight labour market (see Box C).

Chart 2.19: Indicators of pay growth are elevated

Indicators of pay growth (a)

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

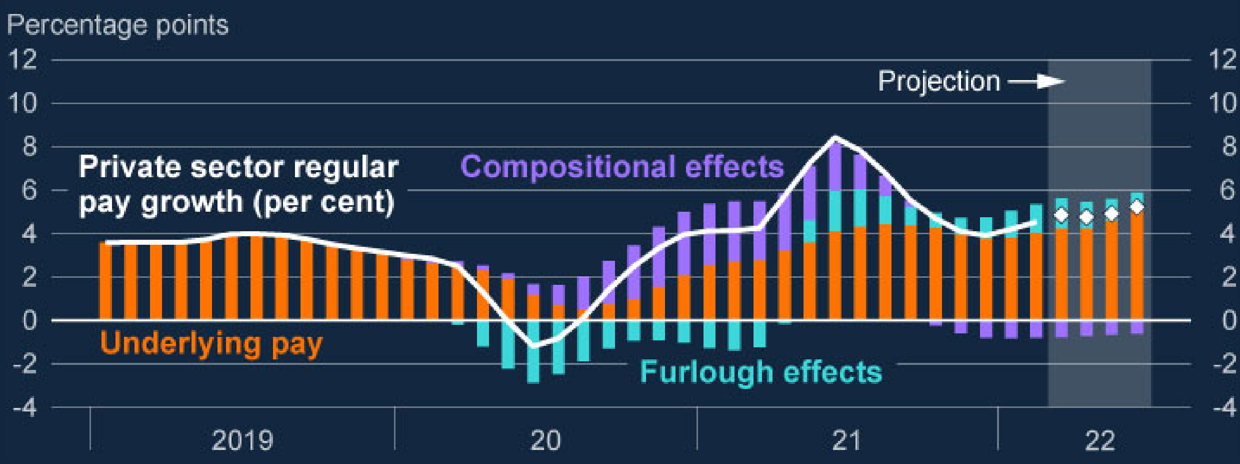
(a) Estimated underlying pay growth is growth in three-month average underlying pay relative to the same period a year earlier; data are to February 2022. KPMG/REC series is the index of starting salaries for permanent staff, scaled to match the mean and variance of annual growth in private sector regular pay since January 2005. KPMG/REC and Pay As You Earn (PAYE) Real Time Information (RTI) median of pay growth data are to March 2022.

…which is expected to rise further, reflecting the tightness in the labour market, but also rising inflation.

Staff expect underlying pay growth to increase to around 5% over Q2 (Chart 2.20), around half a percentage point higher than in the February Report. Notwithstanding an expected softening in economic activity, that in part reflects the continued tightness in the labour market (Section 2.2). But it is likely to also reflect current rates of inflation. As discussed in Section 3 of the **February Report**, models by Bank staff suggested that rising inflation may have been contributing to higher underlying pay growth. Inflation has increased further since then, likely driving underlying pay growth higher, as the real income squeeze increases pressure on employers to raise pay. Taken together, the outlook for underlying pay growth is consistent with the recent strength in indicators of pay growth (Chart 2.19).

Chart 2.20: Underlying pay growth is expected to reach 5% in the coming months

Contributions to private sector regular pay growth (a)



Sources: HMRC, ONS and Bank calculations.

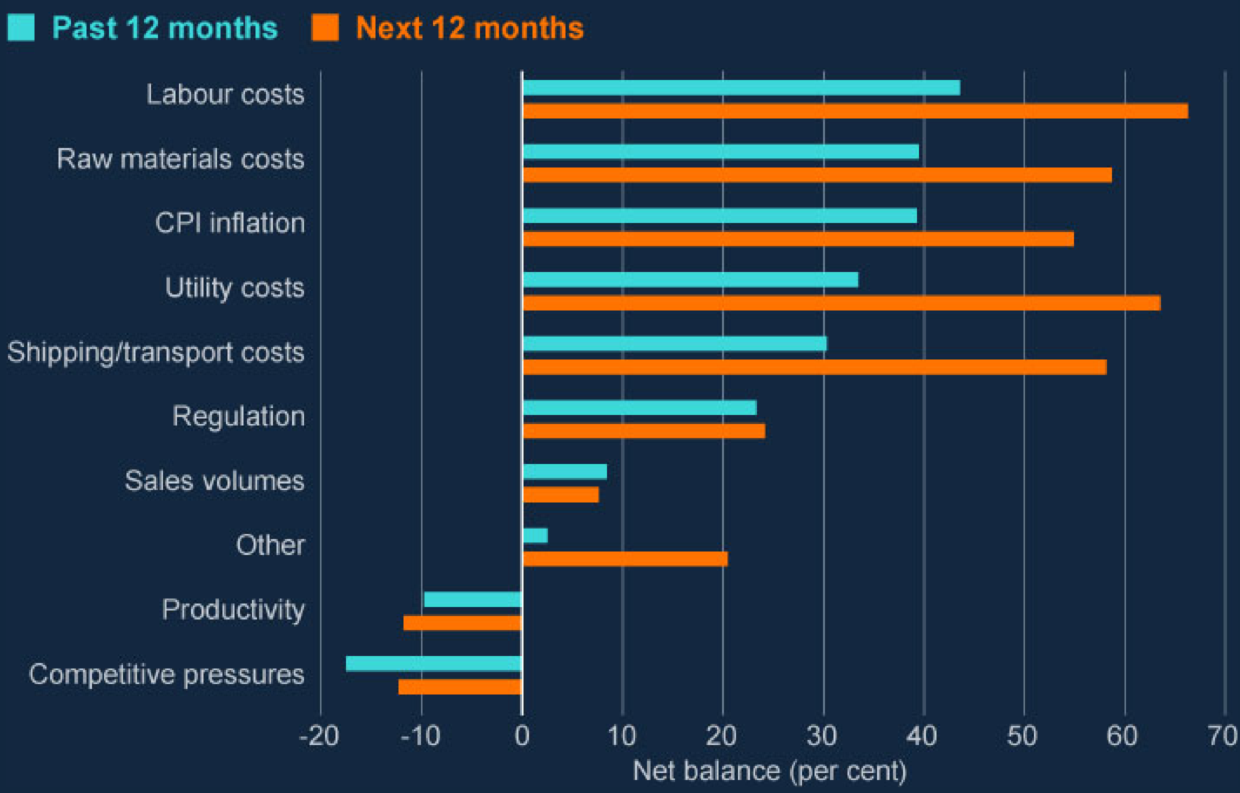
(a) Growth in three-month average pay relative to the same period a year earlier. Furlough effects, compositional effects and underlying pay growth are Bank staff estimates. Latest data are for February 2022, diamonds show Bank staff projections for March to June 2022.

Agency intelligence suggests firms are likely to pass through more of the increase in global and domestic costs into prices over the next year.

Results from a recent survey on pricing and profit margins conducted by the Bank's Agents, covering just under 300 firms, suggests firms are increasingly passing through cost pressures to prices. Companies cited labour costs and utilities prices as the biggest factors behind increasing prices over the next 12 months, ahead of costs associated with global bottlenecks, such as higher raw materials costs and shipping costs (Chart 2.21). And for the majority of factors, firms expected significantly more upwards pressure on prices over the next 12 months than the previous 12 months.

Chart 2.21: Agency intelligence suggests firms expect more upward pressure on inflation over the next year from several factors

Factors affecting changes to firms' prices (a)



(a) Taken from responses to the Agents' survey on corporate pricing and profit margins. Question: 'How do you expect the following to affect your UK output prices?'. Reports of 'slight' changes were given a 50% weight relative to reports of 'major' changes when calculating these balances.

Inflation is expected to reach 9.1% in April, following Ofgem's announced increase in the energy price cap.

Bank staff expect inflation to pick up further in April to 9.1%, as the 54% increase in the Ofgem energy price cap announced in February comes into effect. At this point, energy prices will be the biggest driver of CPI inflation (Chart 2.17), accounting for almost half of the overshoot relative to target alone, and will continue to keep inflation elevated over Q2 and Q3.

Global bottlenecks are expected to keep certain components of inflation elevated…

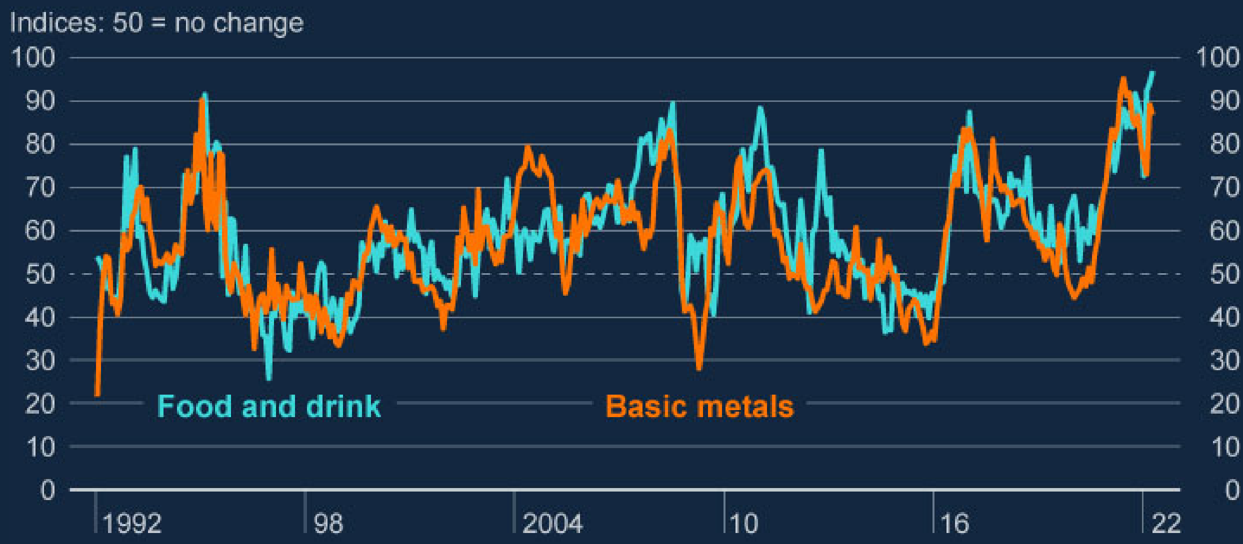
Global bottlenecks in product markets have pushed up tradable goods inflation due to both demand and supply factors (see Box B of the **February Report**). In the MPC's February projections, in part due to the Omicron wave, these effects were expected to persist over the first half of 2022 before starting to fade. However, recent disruptions in China and the effects of Russia's invasion of Ukraine are likely to delay any easing in supply chain disruption, such that goods price inflation is expected to remain somewhat more elevated through the summer months than in February. Nevertheless, these effects are still expected to begin to wane towards the end of the year.

…as are the direct effects of recent geopolitical developments.

Following Russia's invasion of Ukraine, the prices of many commodities have increased sharply (see Box B). As a result, survey measures of input price inflation for food and basic metals rose sharply in Q1, having already been elevated (Chart 2.22). Consistent with that, Bank staff expect food price inflation to rise over the summer, contributing around 1 percentage point to overall CPI inflation (Chart 2.17), its largest contribution since early 2009. Disruption in the production of other commodities such as neon, a key input to the manufacture of microchips, may intensify global bottlenecks and drive tradable goods prices higher once again. Recent spikes in oil prices have fed through to higher petrol pump prices for households, and a further increase in costs for firms (see Section 3).

Chart 2.22: Manufacturers' input prices for food and metals have risen sharply

Survey of manufacturers' input prices (a)



Source: S&P Global/CIPS.

(a) Data for April 2022 are flash estimates. A reading of above 50 indicates positive growth on the previous month while a reading below 50 indicates negative growth.

Altogether, inflation is expected to be above 9% over Q2 and Q3, higher than expected in February…

Inflation is expected to be above 9% over the summer months. That is on average around 2 percentage points above the projection in the February Report. Much of that upward revision can be attributed to the wide-ranging inflationary effects of Russia's invasion of Ukraine. But it also reflects higher-than-expected goods inflation that is expected to stay elevated through the summer, and the continued tightness of the labour market feeding through to higher wage growth.

…and it may rise to in excess of 10% towards the end of the year if energy futures prices remain at elevated levels.

It is possible that inflation rises further in October if wholesale energy futures prices remain at elevated levels. The averaging period for the October Ofgem price caps covers February to July. Were wholesale energy futures prices to remain at levels seen in the run-up to this Report (Chart 2.23) the cap could increase by around a further 40%, meaning that over 2022 as a whole, the Ofgem cap would have increased by around £1,500 per household on average. That would potentially push inflation to in excess of 10%. And around two thirds of the pickup in inflation from the March outturn to the end of the year is owing to higher energy prices alone.

The near-term outlook for inflation is unusually uncertain.

There is unusually high uncertainty around the near-term inflation projection. Energy prices have been extremely volatile recently. Respondents to the Bank's DMP Survey are more uncertain about prices than in the past (Chart C in Box B). The survey suggests that heightened price uncertainty can be attributed to a range of factors, including uncertainty over energy prices, labour and supply shortages, and the demand outlook.

Chart 2.23: Gas futures prices are higher than in February

Wholesale gas spot price and futures curves (a) (b)

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

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

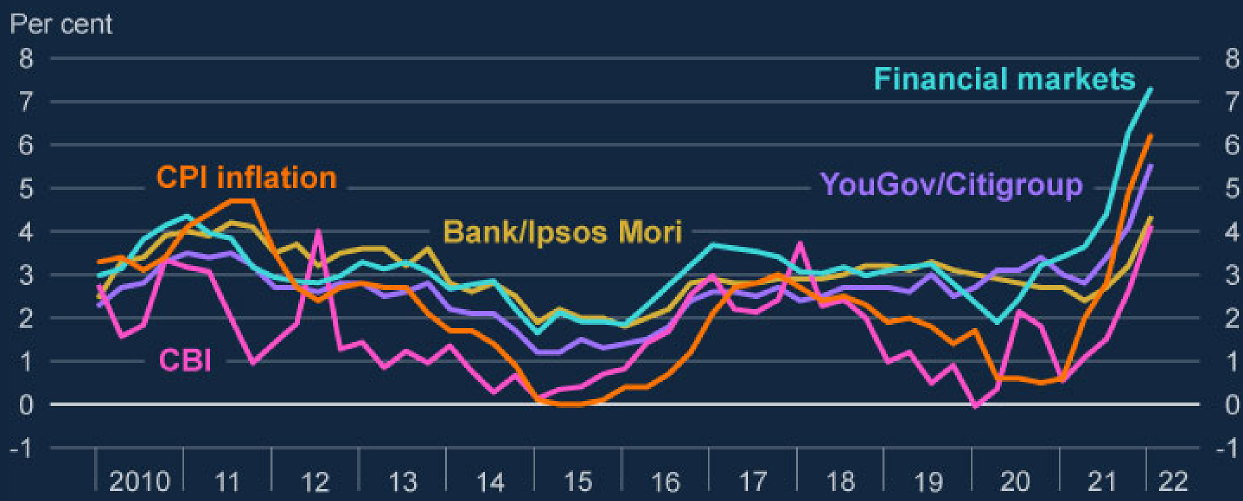
Measures of short-term inflation expectations have risen further…

Measures of household inflation expectations over the next year have picked up further (Chart 2.24). Both the Bank/Ipsos Mori and YouGov/Citigroup surveys increased by over 1 percentage point in Q1 to their highest levels on record. But that is in line with past evidence that suggests these measures move closely with actual inflation (**Rowe (2016)**). And there is evidence to suggest these short-term household measures tend to be more responsive to CPI inflation when components that are more salient to households, such as food and energy, are driving the headline rate (**Tenreyro (2019)**).

Companies' inflation expectations over the next year have also picked up by around 1½ percentage points since 2021 Q4 (Chart 2.24). And one year ahead financial market measures have risen most sharply, to over 9% in April. But part of that will reflect the unusually high wedge between RPI and CPI inflation currently.

Chart 2.24: Short-term inflation expectations have risen alongside inflation

Measures of one year ahead inflation expectations (a)



Sources: Bank of England, Bloomberg Finance L.P., CBI, Citigroup, Ipsos Mori, ONS, YouGov and Bank calculations.

(a) Data are non-seasonally adjusted and are quarterly averages to 2022 Q1. See Table 2.B in the **February Report** for more information about the different measures.

…but financial market participants and professional forecasters expect CPI inflation to fall back towards the 2% target in two or three years' time.

The results of the latest Market Participants Survey suggest that respondents expect CPI inflation to fall back to near 2% in three years' time. The expectations of professional forecasters are also similar, on average. Households', companies', and financial market expectations for inflation in two to three years' time remain above historical averages.

Longer-term measures of inflation expectations remain above historical averages.

Perhaps reflecting the expected temporary nature of recent rises in inflationary pressures, longer-term inflation expectations are only a little higher than at the time of February Report. The latest household measures have risen somewhat and remain elevated compared with the past. The YouGov/Citigroup five to ten year ahead measure, which has a relatively long time series measured on a consistent basis, remains above its historical average. The Bank/Ipsos Mori measure is around its 2010–19 average, although recent results may have been affected by a change in survey method in mid-2020.

Financial market indicators of medium-term inflation expectations are little changed from their February levels. That masks some volatility within the period, however. These measures had increased in the immediate aftermath of the invasion, but have since fallen back. Two-year inflation expectations, five years ahead, which are unaffected by the alignment of RPI and CPIH in 2030, remain above their 2010–19 average (Chart 2.5). The use of UK inflation markets for hedging large pension liabilities can at times cause these to move even in the absence of changes in inflation expectations or perceived inflation risks, but market intelligence suggests that recent moves in part reflect higher central expectations for inflation.

The MPC will continue to monitor measures of inflation expectations very closely and, importantly, how inflation expectations appear to be affecting wage and price-setting.

Box B: How will the Russian invasion of Ukraine affect the UK economy?

The Russian invasion of Ukraine is first and foremost a humanitarian tragedy. The Bank is working closely with the UK Government to support its response in co-ordination with international authorities.

The invasion will also affect the UK economy and this box sets out the main channels by which it is likely to do so. The primary channel is by raising energy and other commodity prices, pushing up UK inflation but weighing on demand. It is likely to act as a drag on global GDP growth, which will also affect the UK outlook, and there may be further effects on the UK via financial markets. Any increase in uncertainty would be likely to affect business investment in particular, but could also affect household spending.

Higher global energy prices will push up UK inflation in 2022 and 2023…

Higher global energy prices as a result of the invasion are expected to push up UK inflation in 2022 and 2023. A significant share of global energy commodities is sourced from Russia. In 2020, for example, Russia accounted for 13% of global crude oil production. Even for those energy commodities where the UK imports a relatively small share from Russia directly, the invasion has restricted global supply and increased the market price. For natural gas, Russia accounts for 18% of global production, although in that case the global market is more fragmented, so the effect on prices will differ across regions. The UK imports just 4% of its gas supplies from Russia (Chart 3.2), but gas is traded via pipelines around Europe. As a result, UK gas prices are usually closely linked to European prices (Chart 2.4) and 40% of the gas used in the EU typically comes from Russia. The US does not typically import gas from Russia, so the spillover effects will be smaller.

…and weigh on UK growth.

UK firms' production costs have increased and the prices paid by households for fuel and energy have also risen. This is expected to weigh on GDP growth (see Section 3 for a full discussion of how higher energy prices are likely to affect businesses and households in the UK).

Higher prices for non-energy commodities are also expected to push up UK prices.

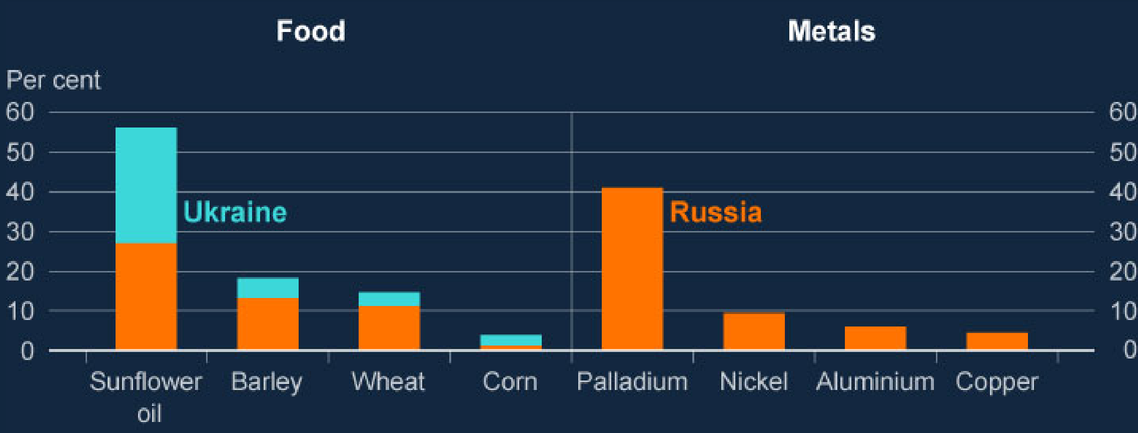
Russia and Ukraine account for a significant share of global production for a number of agricultural commodities, including sunflower oil, wheat and barley (Chart A). The invasion will reduce the global supply of some foods, which is likely to push up prices, including in the UK. In the past, a 10% rise in global agricultural prices has typically led to around a 0.2 percentage point rise in UK CPI inflation after three quarters. Given the length of agricultural cycles, the current disruption could affect food prices into 2023.

Russia is also an important supplier of some metals (Chart A), which are a key input for many manufacturing and construction firms. The prices of these metals have generally risen since early 2020, and have increased further since late February in some cases. Intelligence from the Bank's Agents suggests that higher prices for these commodities have raised UK firms' input costs.

Recent Bank staff analysis suggests commodity supply shocks can have significant effects on the UK economy. A model based on historical episodes of commodity supply shocks suggests that a 10% rise in a global index of commodity prices is typically associated with a 0.5% fall in UK GDP and an increase in prices of around 0.3%. These effects are found to be relatively persistent, lasting for up to two years.

Chart A: Russia and Ukraine are important suppliers of some commodities

Share of global production of selected commodities (a)



Sources: Food and Agriculture Organization of the United Nations, World Mining Data and Bank calculations.

(a) Shares based on 2020 data where available, and 2019 otherwise.

Commodity prices have been volatile recently, with large movements linked to developments in Ukraine, and there has been some evidence of localised market disruption. The London Metal Exchange temporarily suspended electronic trading in the nickel market in March (see **March 2022 Financial Policy Summary and Record**). Liquidity conditions deteriorated in some commodity markets and the cost of margin calls increased, reflecting higher volatility and risks in those markets.

Direct trade with Russia and Ukraine has fallen...

The UK's trade with Russia and Ukraine will have fallen sharply following the invasion, primarily due to the direct effects of the war and businesses' subsequent reorientation. The expected reduction in trade with Ukraine reflects the severe economic impact of the invasion and the damage to the country's infrastructure. Many UK firms including supermarkets and clothing retailers have also reduced their links to Russia. Direct trade with Russia and Ukraine is relatively limited, however, accounting for around 1.5% of UK imports and less than 1% of exports.

Tariffs and sanctions introduced in response to the invasion will also affect trade. The UK Government announced a ban on imports and exports of some goods to Russia and raised tariffs on a number of imported items. Russian ships are banned from UK ports and Russian aircraft cannot fly or land in the UK.

…and there could be additional disruption to UK firms' supply chains.

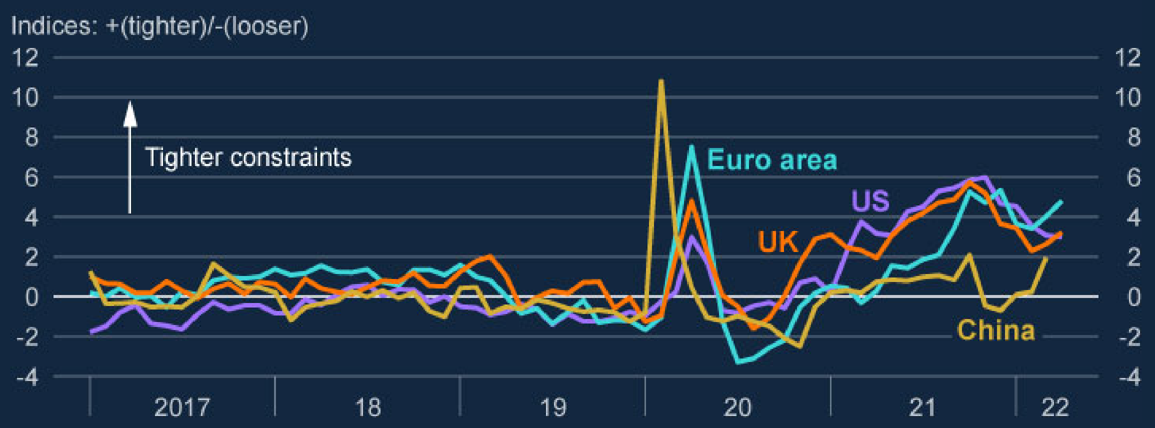
The invasion will disrupt the production of some goods, which could affect other firms along the supply chain. Global supply chains can reduce risk by adding flexibility (**Tenreyro (2021)**). But that will not apply in all cases. It is possible that shocks affecting certain sectors could create bottlenecks which have wider impacts on other sectors further down the supply chain. In some cases, exposure to global shocks can therefore be higher than direct trade links imply (**Baldwin and Freeman (2021)**).

Contacts of the Bank's Agents expect the invasion to exacerbate global shortages of some tradable goods, which could affect the production plans of some sectors. A significant share of global neon supply comes from Ukraine, for example. Neon is used in the production of semiconductors and some car manufacturers have at times had to pause production because of a shortage of these inputs. Disruption to the supply of some wiring components has also affected car production. These shortages could put further upward pressure on UK inflation and act as an additional drag on GDP growth.

Estimates of supply constraints derived from a range of purchasing managers' indices rose across advanced economies over 2021. These indicators fell back somewhat at the start of 2022, but in the UK and euro area they have picked up a little since the invasion (Chart B). The recent rise in China is linked to the imposition of Covid restrictions (Section 2).

Chart B: Indicators of supply constraints suggest the invasion has exacerbated supply chain disruption

Indicators of supply constraints (a)



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

(a) Indicators are estimated by Bank staff using principal component analysis on a range of PMIs for supply constraints in the manufacturing sector (supplier delivery times, stocks of purchases, stocks of finished goods, input prices and backlogs of work). Before principal components are estimated, these indicators are regressed on the new orders PMI to control for movements in demand. Latest data are for April 2022, except for China, for which the latest data are for March 2022.

Businesses may find ways to limit disruption, but this will not be possible in all cases. Some firms that faced supply chain pressures in mid-2021 may now be better placed to adapt. Agency contacts report that construction firms are ordering raw materials earlier to accommodate longer lead times, for example. There may also be cases where goods that were previously imported from Russia and Ukraine can be sourced from elsewhere. But other parts of the supply chain may still create constraints. For example, even if agricultural producers in other countries seek to scale up their own production, they may be limited by access to other goods, such as fertiliser, of which Russia is also a major supplier.

Weaker global GDP growth would be expected to weigh on UK growth…

There could be some spillover effects on the UK if its largest trading partners are adversely affected by the invasion. Some of those trading partners, such as Germany and the Netherlands, also have trade links with Russia and Ukraine. If the supply of Russian gas to the euro area was ended abruptly, that would also affect output in those countries. More broadly, the material increase in the prices of energy and raw materials will also erode real aggregate income across a number of commodity-importing countries.

…and the UK could also be affected by developments in financial markets.

The invasion may have an impact on the UK via financial markets. The equity prices of some firms that are particularly exposed to Russia and Ukraine have fallen significantly. The FTSE All-Share index has fallen by less than some other indices, however. The recent rise in commodity prices is expected to raise the profits of some firms, and those represent a greater share of the UK index. (Section 2).

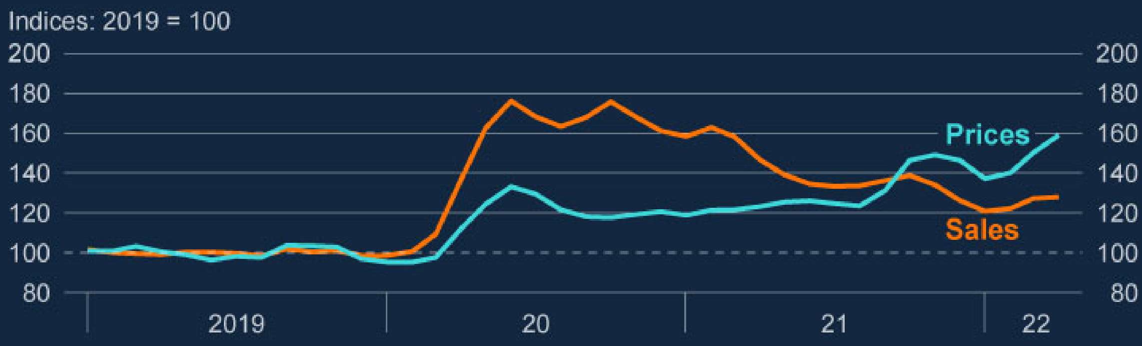
Any rise in global uncertainty could act as an additional drag on UK output growth.

The invasion could also affect UK output if it creates uncertainty. Firms' uncertainty can influence their investment spending, since such spending is often costly to reverse, which creates an incentive to delay decisions. Uncertainty can also increase risk premia, which raises the cost of borrowing to finance investment. And it can affect household spending, although the effects tend to be smaller than for business investment (see the **November 2019 Report**).

Measures of overall uncertainty are generally similar to pre-pandemic levels. The Deloitte CFO survey is consistent with the Russian invasion of Ukraine having increased uncertainty in Q1, but that measure is broadly in line with its 2019 average and well below its 2020 peak. The invasion appears to have increased uncertainty in some specific areas, however. Responses to the latest Decision Maker Panel (DMP) Survey are consistent with UK businesses' uncertainty around their price expectations having risen, for example (Chart C).

Chart C: Uncertainty around firms' price expectations has increased

Indicators of firms' uncertainty around their sales and price expectations (a)



Sources: DMP Survey and Bank calculations.

(a) Three-month averages. Firms are asked about their expectations for sales and prices, as well as the distribution of expected outcomes. The standard deviation of expected year-ahead growth for each firm is then used to construct measures of 'subjective' uncertainty. Latest data points are for April.

The MPC's forecast reflects judgements around all of these channels.

In the MPC's forecast, the main channel through which the Russian invasion of Ukraine affects the UK economy is through higher energy and non-energy commodity prices, which push up UK inflation materially in 2022 and 2023, but weigh on household real incomes and consumption. Lower global growth also weighs on UK GDP. There could be an additional hit to supply via disruption to UK firms' supply chains (Section 1).

Box C: Agents' update on business conditions

The key information from Agents' contacts considered by the Monetary Policy Committee at its May meeting is highlighted in this box, which summarises intelligence gathered in the six weeks to mid-April. Economic activity grew at a moderate pace overall; business services growth was strong, but contacts in other sectors said growth was held back by shortages of labour and goods, with the latter worsening and becoming more widespread. Input costs continued to increase sharply, partly as a result of the war in Ukraine, and pay settlements also picked up. Companies reported passing on the higher costs to consumer prices to a greater extent than normal. And contacts were less confident about the outlook for demand, due to the significant pressure on household incomes.

Although annual growth in the value of consumer spending remained robust, mostly reflecting higher prices, volume growth had slowed; contacts were concerned that pressure on real incomes would weigh on demand.

Sales of durable goods, such as furniture and household appliances, continued to be supported by robust housing market activity. However, contacts said footfall at shopping centres remained below pre-pandemic levels and there were growing concerns that the squeeze on real household incomes would weigh on demand over the coming months. Food retailers noted some early signs of this, such as consumers switching to lower-priced alternatives, while discount stores reported gaining market share.Spending on consumer services remained strong overall in nominal terms, but there was evidence of consumers cutting back in some areas. For example, hospitality contacts reported a weakening in demand since early March, and financial services contacts reported a rise in requests for loan forbearance and changes to repayment schedules.

Business services reported strong growth, but shortages of labour and worsening supply bottlenecks weighed on growth in manufacturing.

Business services contacts continued to report strong annual growth in turnover, particularly in professional and financial services, which were supported by corporate transactions. Activity among IT firms also remained robust, with contacts reporting increased demand for cyber security in light of the war in Ukraine. But there were ongoing reports of labour shortages constraining growth, for example in recruitment and services relating to construction, while logistics firms said growth was held back by vehicle shortages.

Manufacturing output continued to grow at a modest pace, held back by shortages of materials and components, which had been exacerbated by the war in Ukraine and Covid-related restrictions in China. In the automotive sector, contacts reported prioritising the production of vehicles with higher profit margins. Many contacts expected supply chain issues to persist into next year, with some trying to build stocks or source alternative inputs in response.

Contacts in business services and manufacturing said that the outlook for demand had become more uncertain in recent months, with squeezed incomes and rising costs expected to weigh on demand in both domestic and export markets.

Growth in construction output picked up as material shortages became less severe and businesses adjusted their planning processes. But there were reports of some steel shortages due to the war in Ukraine. Contacts expected growth to ease over 2022, as the pipeline of publicly funded projects stabilised. There were also reports of some commercial projects being postponed due to rising costs. And many contacts expected rising costs and squeezed household budgets to weigh on demand for new homes and home improvements.

Demand in the housing market and for some types of commercial property remained strong.

Demand for housing continued to outstrip supply of new-build as well as pre-owned properties. The rental market also remained strong across the UK, including in London, where rents were reported to have climbed above pre-Covid levels. However, contacts expect the market to soften over the coming year as real incomes and confidence are eroded, and borrowing costs rise. In commercial real estate, demand for warehouse and laboratory premises continued to outstrip supply, with construction held back by labour and materials shortages and planning delays. Demand for prime and flexible office space held steady. In retail, demand for high street and shopping centre premises was much lower than before the pandemic, reflecting the shift to online shopping, with excess space typically repurposed for leisure or housing.

Investment intentions remained strong despite increasing uncertainty, though current investment spending was held back by cost pressures and shortages.

Investment intentions remained positive, with companies continuing to spend on improving their IT and automation and refurbishing premises to facilitate new ways of working. Contacts were increasingly considering investing in energy-saving measures, especially in manufacturing. However, many companies reported investment projects being delayed or disrupted due to rising costs or shortages of materials and goods – in particular construction projects.

Bank credit remained available on the whole, though it was reported to have tightened for consumer-facing sectors such as retail and hospitality. There was a widespread increase in demand for working capital, in particular for contacts in agriculture, manufacturing, energy, construction, wholesale and transport, due to rising input costs and supply chain delays. Insolvencies had started to increase, albeit from a low level.

Employment intentions were strong and recruitment difficulties remained acute; a number of contacts thought they might have to increase pay to retain staff.

Companies' hiring plans over the next year remained robust, despite increased uncertainty about the economic outlook. Many contacts wanted to grow headcount but were hindered by higher than normal staff turnover and recruitment difficulties, particularly in professional services.

Companies did not expect any improvement in the availability of workers over the coming year. As a result, there were upside risks to the average pay settlement of 4.8% expected by companies in the Agents' pay survey discussed in the **February 2022 Report**. This is partly because a number of companies thought they might now need to make mid-year top-ups to pay settlements or one-off bonuses to compensate workers for higher inflation and to retain staff, especially in sectors where there was strong demand for skills.

Input prices continued to increase sharply due to the war in Ukraine; many companies planned to pass on higher costs into prices to rebuild or protect margins.

Contacts reported large increases in prices of oil, gas and some raw materials, such as metals, grain and seed oils as a result of the Russia-Ukraine war. Higher energy and fuel costs were already pushing up input prices; and higher commodity prices were likely to affect companies further as contracts with suppliers were renewed.

In manufacturing, many companies had passed through higher wage and other input costs to protect margins. In business services, fee inflation picked up further, reflecting pay increases and higher energy costs.

Retailers also reported rising input cost inflation and supermarkets said they expected food price inflation to increase further in the coming months, possibly exceeding 8%.

In non-food retail, some fashion retailers expected to increase prices by between 5% and 8% this year. By contrast, used car prices were believed to have stabilised and were expected to decline if the supply of new cars increases over the coming months.

In order to protect margins, consumer services contacts expected to raise prices to cover higher energy and wage costs. This was particularly the case for travel and leisure companies. And a number of contacts in hospitality said they planned to pass through the restoration of Value Added Tax to prices to rebuild margins, despite strong competition in the sector.

According to a survey by the Agents, around half of companies said it was easier than normal to pass on higher costs (see Section 3).

3: In focus – The economic impacts of the recent rises in energy prices

Energy prices have increased significantly over the past year. That has contributed materially to CPI inflation rising well above the MPC's 2% target. The effects of higher energy prices go beyond the direct impact on inflation, however. Ultimately, persistently higher energy prices mean lower real incomes for most households and lower real profits for many companies. All else equal, this is likely to lower demand growth, causing domestic inflationary pressures to weaken over time. As a result, in the MPC's projections, inflation is below the 2% target in three years' time.

Energy prices have increased significantly over the past year (Chart 3.1). Energy – in the form of oil, gas or electricity – is an input into the production of almost every good and service produced in the economy. Households also buy energy directly to heat their homes, power their appliances, and fuel their cars. Energy prices are therefore an important influence on the economy.

This In focus explains how, and why, energy prices have risen recently, and how those changes might affect firms and households. It then explains how energy prices have affected the MPC's projections.

3.1: How have energy prices changed, and why?

Gas prices have increased significantly over the past year. They have also been exceptionally volatile recently.

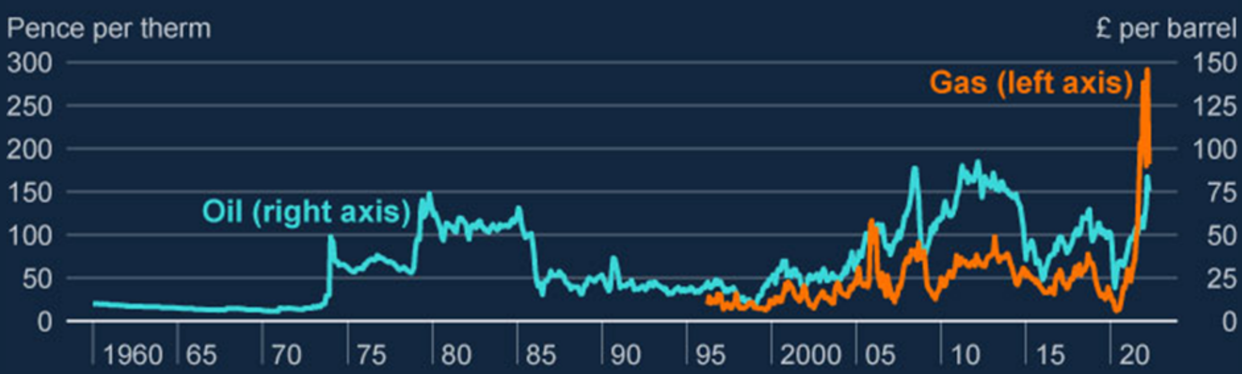
UK natural gas prices have increased significantly over the past year (Chart 3.1). In the 15 working-day average used for this Report, wholesale gas prices were around 200 pence per therm, around four times the average level between 2010 and 2019. Prices have been extremely volatile, however, with prices going as high as 500 pence per therm during March (Chart 2.23), but falling in recent days to below 100 pence per therm.

Stronger demand and fears over Russian supply have pushed gas prices up.

The price of gas started rising in the second half of 2021, with both higher demand and lower supply playing a role. The world economy was recovering from the economic effects of Covid, which meant there was increasing demand for energy. The previous winter had also been unusually cold in parts of Europe, which meant storage facilities were depleted and needed to be refilled more than usual. Against that backdrop, Russia began restricting exports of gas to Europe by limiting sales in the 'spot' market used for purchases at short notice.

Chart 3.1: Gas and oil prices have increased to historically high levels in recent months

Monthly real crude oil and natural gas prices (a)



Sources: Bank of England, Bloomberg Finance L.P., World Bank Commodities Price Data and Bank calculations.

(a) Monthly averages in 2021 prices. Before 1979, the oil price is for Saudi Arabian Light. From 1979 onwards, the oil price is for Brent crude. The gas price is the one-day forward price of UK natural gas. Both series are deflated using the Consumer Price Index from '**A millennium of macroeconomic data**'. Latest data point is for April 2022, based on daily prices to 26 April. Data are not seasonally adjusted.

The price of gas then increased sharply when Russia invaded Ukraine in late February. Although there was no immediate impact on the volume of gas supplied, the start of the conflict meant there were fears of future restrictions of supply. The rapidly changing situation has led to unusually high levels of price volatility.

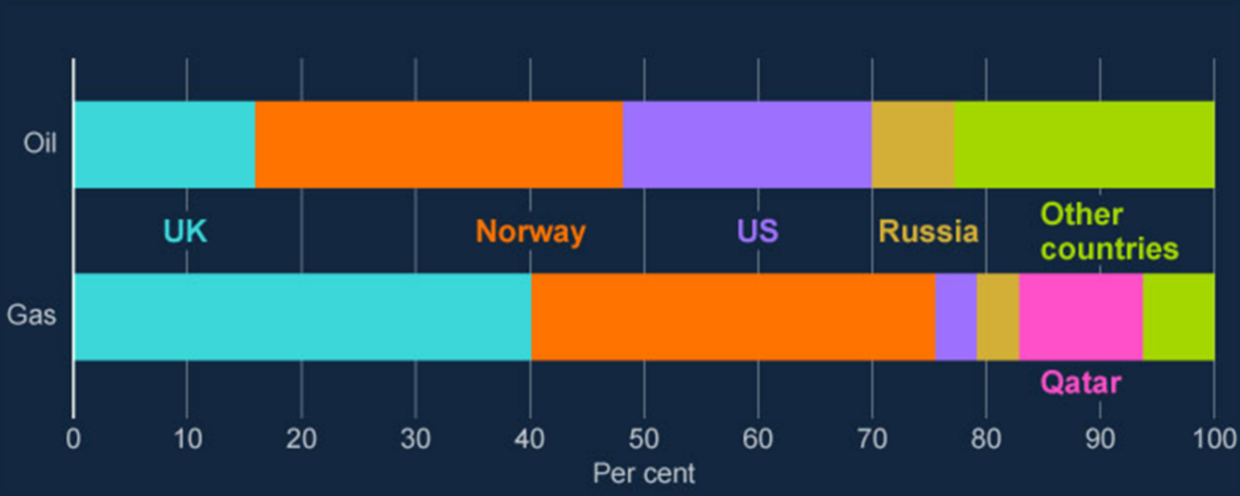
Russia and the geopolitical situation are important for the gas market because Russia is a major supplier of natural gas. Russia accounts for 18% of global natural gas production, and provides around 40% of the gas used in the European Union. Although the UK does not import much gas directly from Russia (Chart 3.2), gas is traded via pipelines around Europe, so UK gas prices are normally closely linked to European gas prices. Gas can also be traded in liquid form by ship, although this relies on countries having the required port facilities. The UK has a relatively large number of these facilities and has been receiving an unusually high number of deliveries recently, so the UK spot gas price has fallen relative to the European price in recent weeks (Chart 2.4).

Household energy providers typically buy gas in advance, but futures prices have also gone up.

Futures prices for gas – the price of an agreement to supply gas at some point in the future – have also gone up sharply (Chart 2.23). UK energy firms typically enter into agreements to buy gas in advance of supplying it to domestic consumers, so it is these futures prices that matter for their costs. Ofgem's energy price caps, which regulate the prices energy firms can charge households, are therefore linked to these futures prices (Section 3.3).

Chart 3.2: The UK imports relatively little energy from Russia

Supply of crude oil and natural gas to the UK in 2019 by country (a)



Sources: Department for Business, Energy and Industrial Strategy and Bank calculations.

(a) Crude oil in thousand tonnes and natural gas in gigawatt hours. UK supply is UK production plus stock changes and transfers, minus exports. See **Digest of UK Energy Statistics 2021** for more details.

Gas is used to generate electricity in the UK. As a result, the price of electricity has also increased.

Despite the rise in renewable sources of electricity, gas remains an important fuel for the UK's electricity network. In 2019, gas was used to produce 40% of the UK's electricity (Chart 3.3). Moreover, gas is often the 'marginal' fuel in the UK's energy mix as it is relatively easy to adjust the amount of power being generated by gas, unlike for renewables and nuclear power. As a result, electricity prices are particularly responsive to gas prices, and have recently gone up in tandem: in the run-up to this Report, electricity prices were almost four times their 2010–19 level.

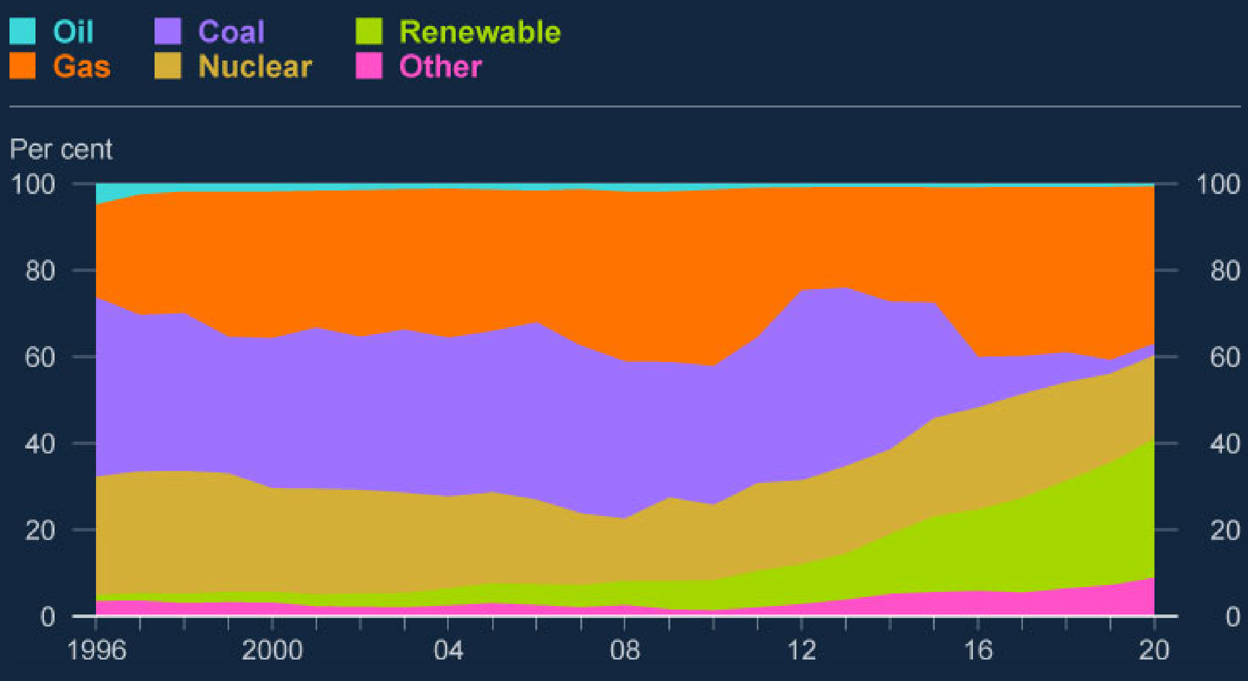
Oil prices have increased, although to a lesser extent.

The price of crude oil has also gone up as a result of Russia's invasion of Ukraine. The price of a barrel of Brent crude oil averaged less than £20 in April 2020, before recovering to £60 by October 2021 as the global economy recovered from the effects of Covid. After the Russian invasion, the price spiked as high as £100 a barrel. Similar to gas, oil prices are set in global markets and large reductions in supply from important producers – or fears of future reductions – can cause prices to rise. Russia accounts for 13% of total global oil production. Only around 7% of the crude oil used in the UK is imported from Russia (Chart 3.2), although it supplies almost a fifth of the UK's diesel, a refined oil.

The 'real' price of oil – the price of oil after adjusting for the rise in the average price level over time – was higher in March than it was in the 1970s or 1980s, although it remains lower than in the years immediately before and after the global financial crisis (Chart 3.1).

Chart 3.3: Gas is an important fuel for generating electricity

Fuels used in UK electricity generation (a)



Sources: Department for Business, Energy and Industrial Strategy and Bank calculations.

(a) See Table 5.3 in **Digest of UK Energy Statistics 2021** for more details.

The change in the price of oil has been smaller than for gas. This reflects Russia's smaller share of global production, and the greater possibility for other countries to increase production to offset any reductions in Russian supplies. Some countries have already announced plans to increase production, and the US plans to release a large amount of oil from its strategic reserves.

3.2: How do energy prices affect firms?

Energy is an input to production for firms in non-energy sectors.

Energy is an input into the production of almost every good and service in the economy. In 2019, energy made up 4% of total intermediate consumption – the goods and services used in production – of the non-energy sector. Taking into account all costs, including wages and net taxes, energy accounted for 2.4% of the non-energy sector's costs.

Some sectors are particularly energy-intensive.

Some sectors use a lot more energy than average. Manufacturers tend to use more energy than firms in the service sector. However, a few service sectors are also energy-intensive: around a quarter of the air transport sector's costs are accounted for by fuel.

Unlike household energy prices, business energy prices are not capped. Some businesses choose fixed-price tariffs, which typically last for one to three years. Similarly, some large energy-intensive firms can 'hedge' their exposure to energy prices using financial instruments. Both methods will only delay the impact of a persistent rise in energy prices.

In the short term, firms must either accept lower profit margins or pass higher costs through to prices.

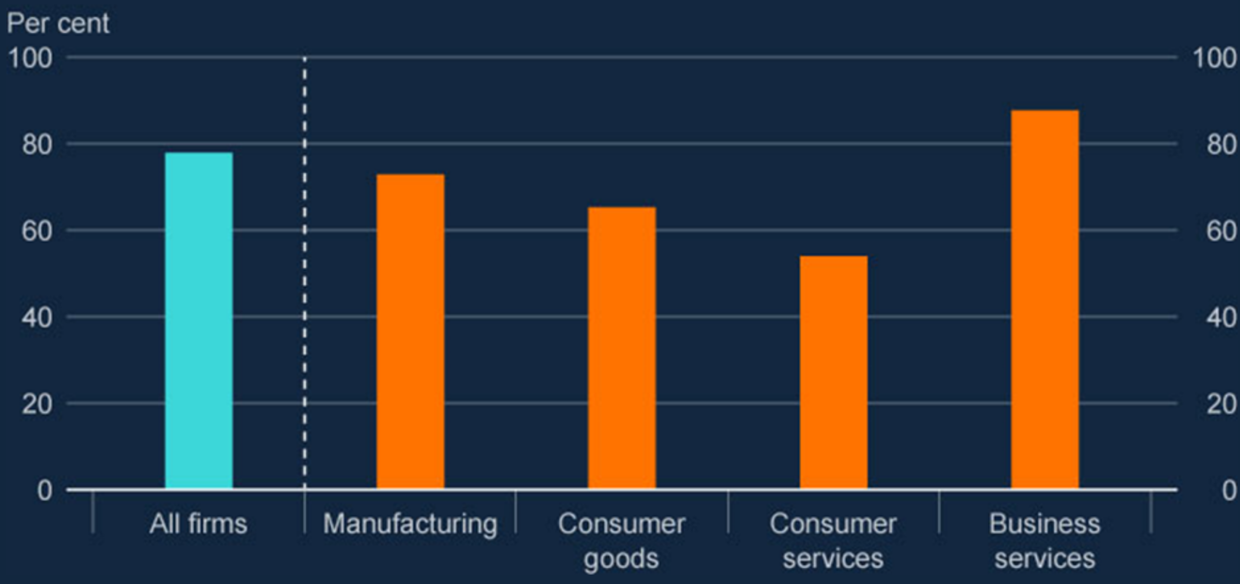
In the short term, firms are unlikely to be able to use much less energy in production. This is because it usually takes investment to change production processes to be more energy-efficient or to use different sources of energy. As a result, firms may wish to raise the prices of the goods and services they sell in response to higher energy prices to protect their profit margins.

A survey by the Bank's Agents suggests firms have passed on much of the recent increase in costs, especially in the manufacturing and business services sectors.

A recent survey by the Bank's Agents suggests that almost all firms have passed on some of the recent cost increases through to prices, and most firms have passed on a majority of the increase. On average, firms reported passing through almost 80% of the recent increase in their non-labour costs (Chart 3.4). Firms in the business services and manufacturing sectors reported higher pass-through than consumer goods and services providers.

Chart 3.4: Firms have passed on a majority of the increase in costs into prices

Average pass-through of non-labour costs to prices in the Agents' survey (a)



(a) Question: 'To what extent have you already passed through higher costs to prices?'.

Around half of the survey respondents felt it was easier than normal to pass cost increases through to prices. This could be because many firms are experiencing similar increases in costs at the moment, so the risk to an individual firm of other companies undercutting their prices is lower. It could also be because the general demand environment is strong, so firms might believe consumers are willing to pay more.

Firms that have not passed on higher costs may now have unsustainably low profit margins.

The firms that have been unable to pass on much of their increase in costs may now have profit margins that are unsustainably low. In the Agents' survey, around 40% of businesses reported having profit margins that are considered to be below a sustainable level. Only 14% reported they were above a sustainable level. Consumer services firms reported lower profit margins, on average.

These firms may increase prices in the future, or take other actions to restore profitability.

Firms with unsustainably low profit margins might be more likely to raise prices in the future. In the Agents' survey, firms generally expected to raise prices by more over the next 12 months than over the previous 12 months, with much of that increase expected to take place in the next three months. Firms in the consumer services sector expected a particularly notable increase in price inflation. They reported increasing prices relatively little so far, but expected prices to rise by 6%, on average, over the coming year (Chart 3.5).

Chart 3.5: Many firms have raised prices recently and are planning further increases over the coming year

Average reported and expected price change in the Agents' survey (a)

(a) Question: 'Approximately, in percentage terms, how have your average UK output prices changed/are expected to change?'.

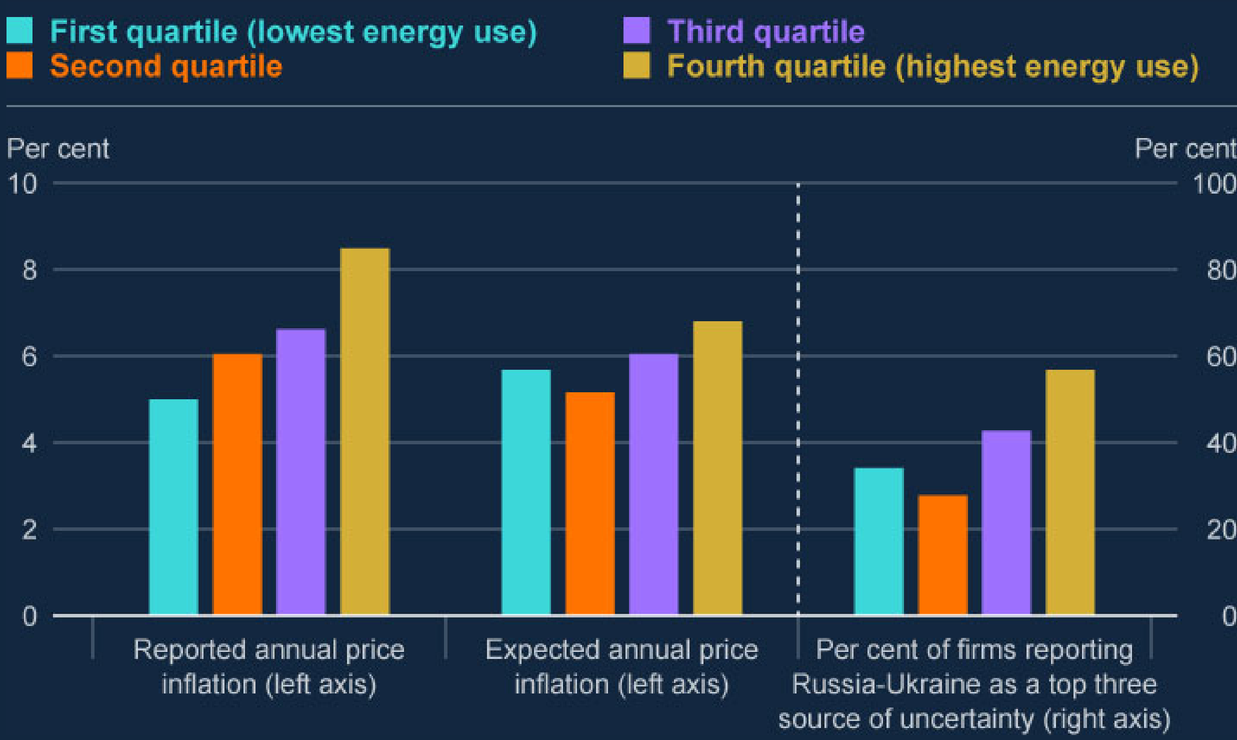
Firms can also take other actions to restore profitability. Over a third of firms in the Agents' survey expected to raise productivity to improve their margins and more than a quarter expected to change the mix of products sold. Very few firms planned to reduce employment to improve profitability.

The DMP Survey confirms that firms in energy-intensive sectors have increased prices by more than firms in other sectors.

The latest DMP Survey confirmed that firms in sectors that use a lot of energy were more likely to have increased their prices over the past year. Firms in energy-intensive sectors – defined as sectors in the top quartile for energy use – reported average annual price inflation of 8½%, compared to 5% for firms in the bottom quartile (Chart 3.6). Energy-intensive firms also expected to raise prices by more over the next 12 months, although the difference was much smaller. However, the DMP Survey also suggests firms are unusually uncertain about their price expectations at the moment (Chart C in Box B).

Chart 3.6: Firms in energy-intensive sectors report larger increases in their prices and more uncertainty from Russia-Ukraine

Reported inflation, expected inflation, and Russia-Ukraine as a top three source of uncertainty, by energy use quartile (a)



Sources: DMP Survey, ONS and Bank calculations.

(a) Reported and expected price inflation are based on the following questions: 'Looking back, from 12 months ago to now, what was the approximate % change in the average price you charge, considering all products and services?' and 'Looking ahead, 12 months from now, what approximate % change in your average price would you expect in each of the following scenarios: lowest, low, middle, high, highest?'. Respondents were then asked to assign a probability to each scenario. Uncertainty results are based on the question: 'How important is the situation in Russia and Ukraine as a source of uncertainty for your business?'. Energy use refers to the percentage of industry costs that are energy, estimated from the 2019 'Input-Output Supply and Use Tables'. Results are based on pooled data from the March and April 2022 surveys.

High and variable input prices might also increase business uncertainty, which could lower business investment.

The recent increase and volatility in energy prices may have other effects on firms, besides affecting their prices and profits. High and variable input prices might make it harder to plan for the future, which may discourage businesses from making costly, sometimes irreversible, investments. In the DMP Survey, energy-intensive firms were more likely to report the Russia-Ukraine conflict as a top three source of uncertainty (Chart 3.6). The conflict may increase other uncertainties as well, including uncertainty over demand and the resilience of supply chains (Box B). These negative impacts may be mitigated if high energy prices incentivise investment in alternative sources of energy or more energy-efficient buildings and machinery.

3.3: How do energy prices affect households?

Households currently spend around 5% of their income on energy, although that share is larger for poorer households.

Households mainly buy energy in the form of utilities, such as gas and electricity, and motor fuels, such as petrol and diesel. Some households also purchase other fuels to heat their homes. At the end of 2021, households in aggregate spent 5% of their disposable income on energy, a similar share to before the pandemic (Chart 3.7). Around half of that spending was on motor fuels and half on gas, electricity and other household fuels. There is some variation across households, however. A larger share of poorer households' spending is on energy, on average (Chart 3.8).

The share of income spent on energy is likely to increase by the end of this year.

The share of income spent on energy has fallen over time, but the recent increases in fuel and wholesale energy prices mean that this share is projected to increase significantly by the end of this year (Chart 3.7).

Motor fuel prices have already gone up.

Households are already facing higher motor fuel prices. Prices at petrol stations tend to reflect changes in global oil prices very quickly, so petrol and diesel prices rose over much of 2021. In March, fuel prices were 30% higher than a year earlier. In the Spring Statement, the Government cut fuel duty by 5 pence per litre. This will have reduced the price paid by consumers, but prices remain much higher than a year earlier.

Chart 3.7: The share of income spent on energy is likely to increase over this year

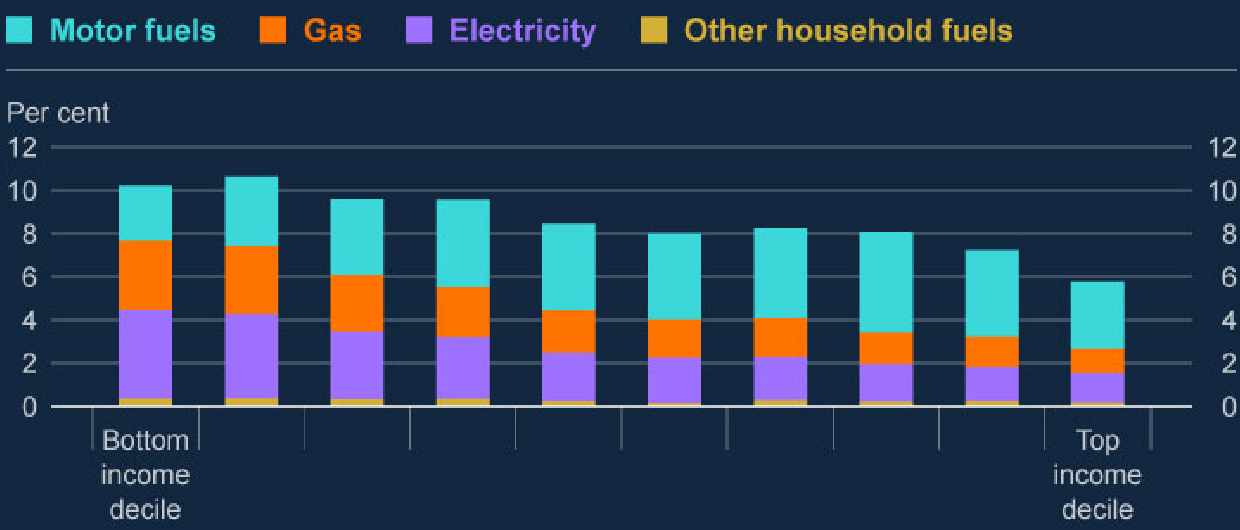
Share of households' disposable income spent on energy (a)

Sources: ONS and Bank calculations.

(a) Energy includes electricity, gas, other fuels, and fuels and lubricants for personal transport equipment. The measure of household disposable income excludes imputed transactions (Household Gross Operating Surplus and Financial Intermediation Services Indirectly Measured) and is similar to the **ONS cash-basis measure**. The 2022 Q4 projection assumes the volume of energy consumed is unchanged from 2021 Q4, but prices and incomes evolve as set out in the MPC's projections. All income and spending figures are seasonally adjusted.

Chart 3.8: Energy makes up a larger share of spending among lower income households

Spending on energy as a share of total household expenditure by gross income deciles (a)



Sources: ONS and Bank calculations.

(a) Based on '**Family spending in the UK: April 2019 to March 2020**', which uses data from the Living Costs and Food Survey.

And household energy bills have increased recently, and are expected to rise again.

The other way households are affected directly by higher energy prices is via household energy bills. Most households are now on variable rate energy tariffs which have their prices capped by the UK's energy regulator, Ofgem. These caps are updated twice a year, in April and October, to reflect changes in the costs faced by energy providers. The largest of these is the cost of advance agreements to buy energy – energy 'futures' prices – on wholesale markets.

In April, the Ofgem energy price cap increased by 54% to reflect the prices of advance agreements bought in the six months up to the end of January. The rises in energy futures prices since January mean it is likely that the cap will increase again in October. If prices remain around their current levels between now and the end of the observation window in July, Bank staff estimate that current policy means the cap would go up by around 40% in October.

The share of income spent on energy may increase to around 7¾% later this year.

Household demand for energy is generally fairly unresponsive, or 'inelastic', to prices in the short run because energy is a necessity, and many means of saving energy take time to implement. If the quantity of energy purchased remained at its 2021 Q4 level, the MPC's inflation and income forecasts are consistent with households spending around 7¾% of their disposable income, on a seasonally adjusted basis, on energy by the end of the year (Chart 3.7). That share would be similar to a decade ago, when energy prices were also high and incomes had fallen following the financial crisis. However, the projected increase over the year would be the largest one-year increase in the history of the series, which goes back to 1963.

Households will also be affected by higher energy prices indirectly.

Households will also be affected by higher energy prices if firms pass on the higher costs of production to consumer prices (Section 3.2). Since most firms have already passed on, or plan to pass on, the majority of these cost increases (Chart 3.4), this implies a further reduction in households' real incomes, albeit one that is difficult to disentangle from the other sources of inflation, such as strong global demand for goods and disruptions to supply (Section 2.1).

Higher prices will weigh on real household incomes. The fall in real household income in 2022 is expected to be one of the largest in recent history.

Bank staff estimate that the total impact of higher prices – including energy prices and other goods and services prices – is to reduce real household incomes by over 7% in 2022. Although nominal wage growth is expected to remain robust, real post-tax labour income – which makes up around two thirds of total household income – is expected to fall by around 3¼% in 2022 (Table 1.C). That would be the biggest calendar-year fall in the history of this series, which began in 1990. Growth in other forms of income and some fiscal policies such as the Council Tax rebate are expected to offset some of this decline, such that the fall in total real household income is expected to be around 1¾% (Table 1.C). That would be the biggest fall in this wider definition of income since 2011, and the second biggest since the series began in 1964.

Lower real incomes are expected to weigh on household spending…

Consumers are likely to reduce their real spending in response to lower real incomes. In an ONS survey conducted in the second half of March, 87% of people said that their cost of living had increased, and over half of those said they had cut spending on non-essentials as a result (Section 2.2).

…although households are expected to cushion the impact on spending of the real income squeeze to some extent.

However, the change in spending is expected to be smaller than the fall in real income, especially if households expect higher energy prices to be at least partially temporary. There are a number of ways households might go about 'consumption smoothing'.

Households might do this by saving less, or dipping into existing savings.

Households can reduce the amount they save, or run down their existing stock of savings, to support their real spending levels. In the latest Bank/NMG survey, saving less and using existing savings were the most popular answers to a question asking respondents how they would pay for extra spending due to higher inflation (aqua bars in Chart 3.9). In the ONS survey, 23% of respondents who had already felt an increase in their cost of living reported using their savings as a result. Households might have greater capacity than usual to adjust saving at the moment. In aggregate, households accumulated a large stock of savings during the pandemic (Chart 2.16). This may be one reason to expect slightly more consumption smoothing than normal, in aggregate.

Chart 3.9: Many respondents to the Bank/NMG survey said they would reduce their monthly saving to pay for extra spending due to higher inflation

Different means by which households plan to fund the extra cost of higher inflation (a)

Sources: NMG Consulting, Bank of England and Bank calculations.

(a) Percentage of respondents selecting each action as one of their top three methods of funding extra spending due to higher inflation in a scenario in which the prices of all goods and services they buy rise by 7% from tomorrow and are expected to increase another 5% in the following year.

Similarly, some households might borrow money to temporarily support real spending. However, relatively few respondents to the Bank/NMG survey said they would borrow in response to an inflation shock (purple bar in Chart 3.9).

Households on low incomes are less likely to have savings to fall back on, or have the ability to borrow. Therefore they are likely to cut spending by more.

Households on relatively low incomes tend to devote a higher share of their income to energy (Chart 3.7), so the recent rise in energy prices is a bigger real income shock for them. These households also tend to have lowest savings rates, and are less likely to have a stock of pandemic-related savings to fall back on (**Franklin et al (2021)** and **Cunliffe (2022)**). As a result, lower income households are likely to cut real spending by more for a given real income shock (**Bunn et al (2017)**). This distributional aspect of the current shock may be one reason to expect slightly less consumption smoothing than normal, in aggregate.

Some households might work more in response to higher prices, or seek a pay rise.

Consumers could increase the number of hours they work in response to an increase in prices. This would raise their incomes and help support their real spending levels. In the Bank/NMG survey, 23% of respondents said this would be one of their top three actions in response to an inflation shock. Other labour market responses, such as looking for a higher-paid job, were also fairly popular (orange bars in Chart 3.9). There may currently be more scope to take on extra hours, or seek higher-paid employment, because of the high number of job vacancies (Chart 2.12). Fourteen per cent said they would ask for a pay increase in their current job. If pay rises are not matched by productivity increases, that could make high inflation more persistent (Section 2.3).

3.4: How have higher energy prices affected the MPC's projections?

The recent rises in energy prices are expected to push up inflation further this year.

Energy prices have already pushed up inflation significantly. In March, CPI inflation was 7%, of which 1.7 percentage points was directly accounted for by energy prices.

April's CPI inflation figure will include the first increase in the Ofgem household energy price cap this year. Bank staff expect this to increase the energy contribution to inflation by a further 1.6 percentage points, and they expect overall CPI inflation to rise to 9.1% (Chart 2.17).

In the MPC's projections, quarterly inflation is expected to peak at just over 10% in Q4 following a further increase in Ofgem's energy price cap this year. However, that projection is very uncertain. It is particularly sensitive to energy futures prices in the coming months, as these will partially determine the energy price cap.

The medium-term impacts of higher prices depend on how long they persist. The MPC's projections are conditioned on prices remaining around current levels.

The longer-term economic impacts of higher energy prices depend on how permanent higher prices are. In the MPC's projections, energy prices are assumed to follow their futures curves for six months, and then remain constant (as set out in Box 5 of the **August 2019 Inflation Report**). This means energy prices are assumed to remain around their current high levels.

The UK is a net importer of energy, so higher energy prices will lead to lower real incomes for most households and lower real profits for many companies.

The longer-term impacts of a permanent increase in energy prices for an economy depend on whether the economy is a net importer or a net exporter of energy (**Harrison et al (2011)**). The UK is currently a net importer of energy. The UK does produce much of its own energy: the UK generates most of its own electricity, and some crude oil and gas is sourced from the North Sea. In the past, this allowed the country to be a net exporter of energy. However, production of North Sea oil and gas has been falling since 1999, and since 2004 the country has been a net importer of energy (Chart 3.10).

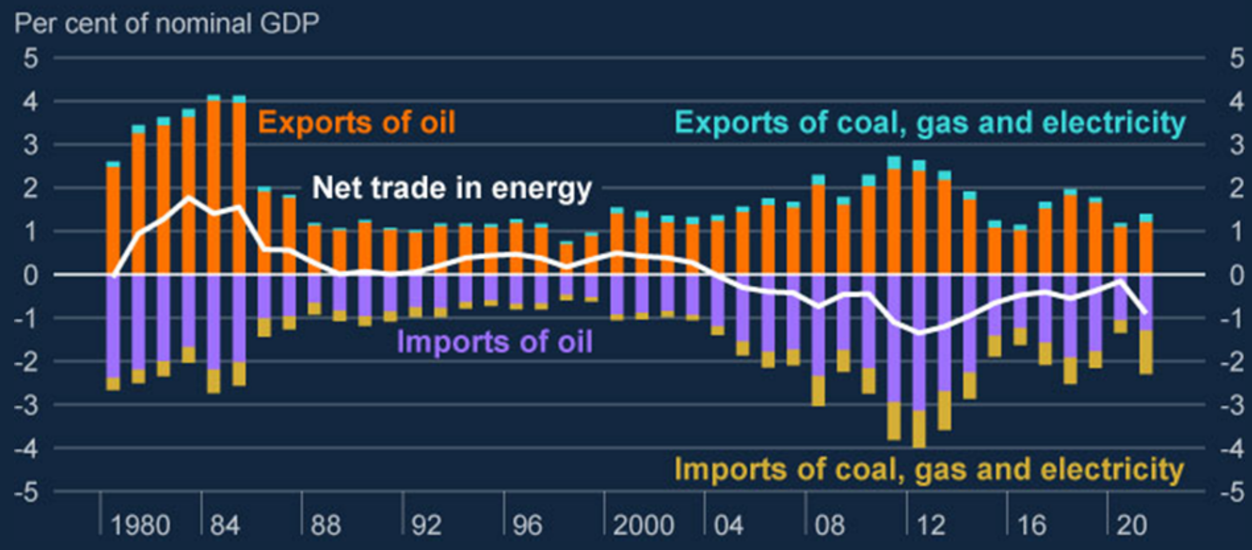
As a result, on balance, higher energy prices are likely to lead to lower real incomes for most households and lower real profits for many companies.

Lower real incomes are expected to reduce demand and cause domestic inflationary pressures to weaken.

Lower real incomes for households and lower real profits for companies are likely to lead to lower demand for consumer spending and business investment. As a result, UK GDP growth is expected to slow over the coming year. This reflects a weakening of demand growth relative to supply, so a margin of spare capacity opens up, causing domestic inflationary pressures to weaken (Section 1).

Chart 3.10: The UK has been a net importer of energy since 2004

UK imports, exports, and net trade balance in energy (a)



Sources: Bank of England, ONS and Bank calculations.

(a) Data from before 1997 are from '**A millennium of macroeconomic data**'.

The response of household spending to lower incomes is uncertain. The buoyant jobs market and large stock of savings built up during the pandemic might limit the extent to which aggregate spending responds. The evidence from the Bank/NMG survey suggests that some households will indeed save less, or use existing savings, to support spending. But this may be offset by the fact that the shock is larger for lower income households with fewer margins of adjustment (Section 3.3).

Similarly, the response of businesses is uncertain. The Agents' survey suggests most businesses are able to pass through increased energy costs (Section 3.2), so the MPC does not expect any extra hit to investment from higher energy prices, although lower consumer demand will cause investment demand to weaken anyway.

In the second half of the forecast period, the temporary upward effects of energy on inflation fade away, and weaker demand causes inflation to fall below the 2% target.

As the direct positive effects of higher energy prices on inflation start to fade in the second half of the forecast, the role of weaker demand and domestic inflationary pressures become more important for determining inflation. By the end of 2023, the direct contribution to inflation from energy is almost zero as a result of the MPC's conditioning assumption that energy prices are flat after six months, and inflation falls to 3½% (Chart 1.6). By the end of 2024, lower demand, a widening output gap and weaker domestic cost pressures push inflation as low as 1½%, and inflation ends the three-year forecast period at 1.3% (Section 1).

There are substantial risks around the forecast. If energy prices went even higher, that would raise inflation and lower activity further.

There are large uncertainties around the MPC's projections. If energy supplies from Russia are disrupted, prices for supplies coming from elsewhere might rise further. This could cause energy-intensive sectors to limit, or even stop, production. It would increase the hit to real household incomes and therefore weaken demand and activity further.

But if energy prices fall, inflation could fall very sharply. There is some evidence that energy prices revert to long-run trends over time.

If energy prices fall back over the forecast period, energy will actually make a negative direct contribution to inflation, and CPI inflation would fall very sharply. This would also boost demand (Table 1.B). There is some evidence to suggest that energy commodity prices, although highly persistent, have a tendency to revert to long-run trends over long periods of time (**Landajo et al (2021)**). Consistent with that, oil and gas futures curves are currently more downward sloping than usual. This would suggest the risk of energy prices falling over the MPC's forecast period is material. However, when the forecasting performance of futures curves and a simple assumption that prices are constant are compared, there is little to choose between them (**Nixon and Smith (2012)**).

Annex 1: Other forecasters' expectations

This annex reports the results of the Bank's most recent survey of external forecasters. Expectations for the near term are summarised in Chart A, with those for further out shown in Chart B.[1]

On average, external forecasters expected zero quarterly GDP growth in 2022 Q2 (Chart A), compared with the MPC's modal projection of 0.1%. External GDP forecasts ranged from -0.7% to 0.6%. The average unemployment rate forecast was 3.9%, higher than the MPC's modal projection of 3.6%. External forecasts for the unemployment rate ranged from 3.6% to 4.2%. On average, CPI inflation was expected to be 8.5% in 2022 Q2, lower than the MPC's projection of 9.1%.

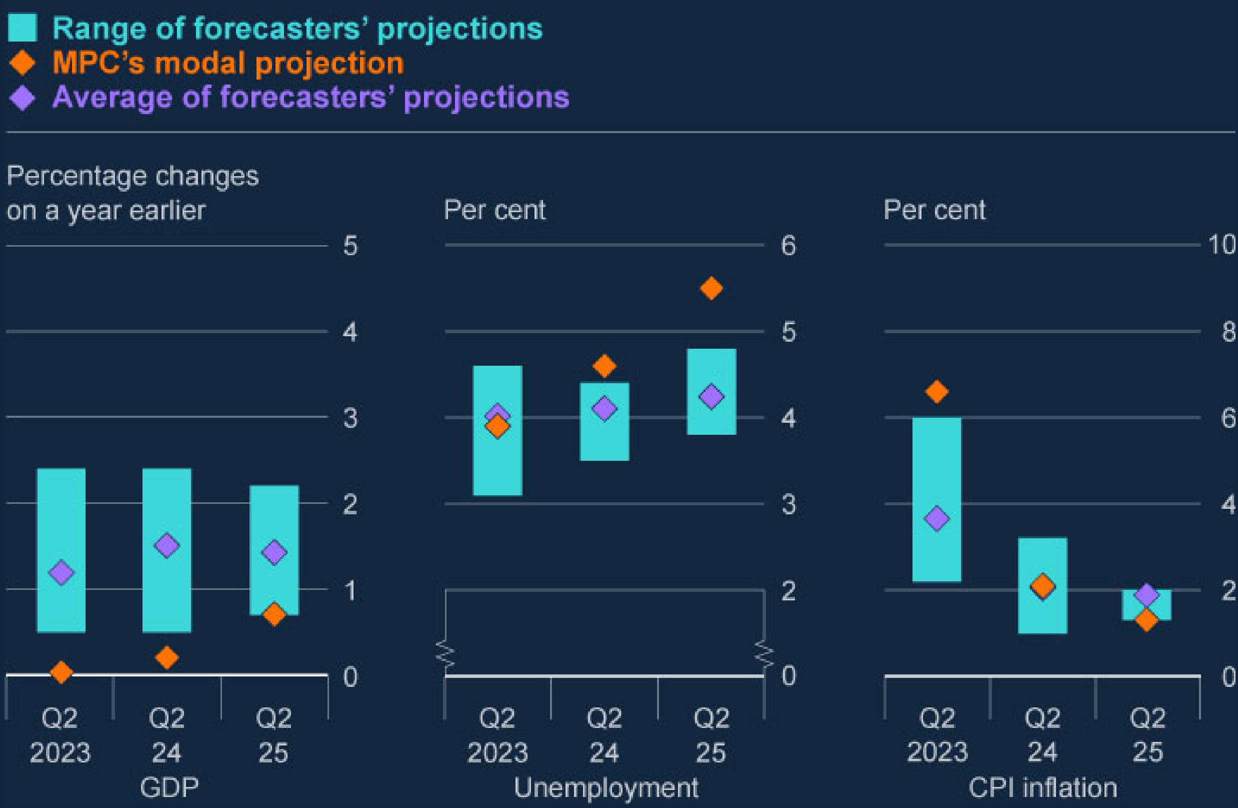
Chart A: On average, external forecasters expect no GDP growth in 2022 Q2, the unemployment rate to be 3.9%, and CPI inflation to be 8.5%

Other forecasters' central projections for GDP, the unemployment rate and CPI inflation in 2022 Q2

On average, respondents expected GDP growth of 1.2% in the four quarters to 2023 Q2 (left panel, Chart B). Four-quarter GDP growth was then expected to rise to 1.5% in 2024 Q2 and 1.4% in 2025 Q2. These forecasts are all higher than the MPC's modal projection. External forecasters expected a marginally higher unemployment rate than the MPC in 2023 Q2. They expected the unemployment rate to rise by significantly less than in the MPC's modal projection over the next three years (middle panel, Chart B). On average, CPI inflation was expected to fall to 3.7% in 2023 Q2, a much faster decline than in the MPC's projection (right panel, Chart B). Respondents expected inflation to reach the MPC's 2% target in 2024 Q2 and be very close to it in 2025 Q2.

Chart B: At the three-year horizon, external forecasters expect four-quarter GDP growth to be 1.4%, the unemployment rate to be 4.2%, and CPI inflation to be 1.9%

Projections for GDP, the unemployment rate and CPI inflation



Annex 2: How has the economy evolved recently relative to the MPC's projections?

On an annual basis, the MPC sets out how the economy has evolved relative to its forecasts.[2] This box looks at how the economy evolved relative to projections in the February 2021 Report, by which time most of the official data for 2020 had been published. It also looks at outturns relative to the MPC's fan charts over a longer period.

In the February 2021 projections, GDP was expected to have returned to around its pre-pandemic level by 2021 Q4, the unemployment rate was expected to rise by 1.3 percentage points to 6.4%, and CPI inflation was expected to rise to 1.9%. That forecast was based on a number of conditioning assumptions: that fiscal spending evolved in line with announced government plans, that Bank Rate would stay close to zero over the forecast, and energy prices would stay broadly flat reflecting the convention set out in Box 5 of the **August 2019 Report**.

Since then, inflation in the UK and abroad has increased much faster than the MPC and other forecasters expected. The size of these forecast errors illustrates the magnitude of the global price shock – unprecedented in the period since inflation targeting began – that has occurred.

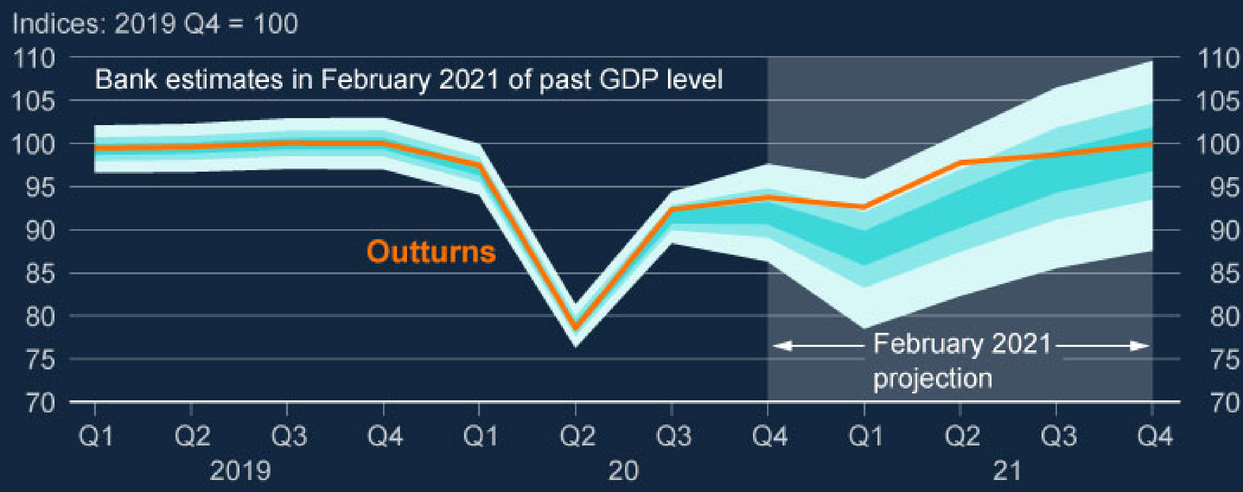
The level of GDP at the end of 2021 was in line with expectations.

The level of GDP in 2021 Q4 was broadly in line with the projection in the February 2021 Report (Chart A), as were major GDP expenditure components such as consumption. The level of UK-weighted world GDP was also in line with expectations. The strength of UK GDP relative to expectations in the middle of last year was due to Covid having less of an economic impact than anticipated. This strength was offset by 2021 Q4 as bottlenecks emerged and dragged on GDP. Those bottlenecks partly reflect disruptions to supply, and also the fact that the balance of global demand shifted more towards goods consumption than expected.

Looking further back, GDP growth has tended to lie more often in the lower half of the fan chart distributions, although an **IEO evaluation** of forecasting performance in 2015 found no statistically significant evidence of bias.

Chart A: The level of GDP at the end of 2021 was in line with expectations

GDP outturns and projection in the February 2021 Report (a)



Sources: ONS and Bank calculations.

(a) For the conditioning assumptions on which the February 2021 projections were based, see the footnotes to Table 1.A of the **February 2021 Report**. See footnotes to Charts 1.1, 1.2 and 1.4 of this Report for information on how to interpret the fan charts.

The unemployment rate was considerably below expectations throughout 2021.

The unemployment rate was much lower than the February projection throughout 2021. It was 4.1% in 2021 Q4, 2.3 percentage points lower than expected.

Lower-than-expected unemployment primarily reflects the extension of the Coronavirus Job Retention Scheme, commonly known as the furlough scheme, and then subsequently the limited impact that the ending of the scheme had on the labour market. In February 2021, the furlough scheme was assumed to unwind at the end of April as set out in government plans, and the end of the scheme was expected to lead to a rise in unemployment as a portion of those on the scheme were made redundant. The furlough scheme was subsequently extended to the end of September. Firms were able to hold on to their staff while output was low, and the vast majority of furloughees returned to their jobs when the scheme ended.

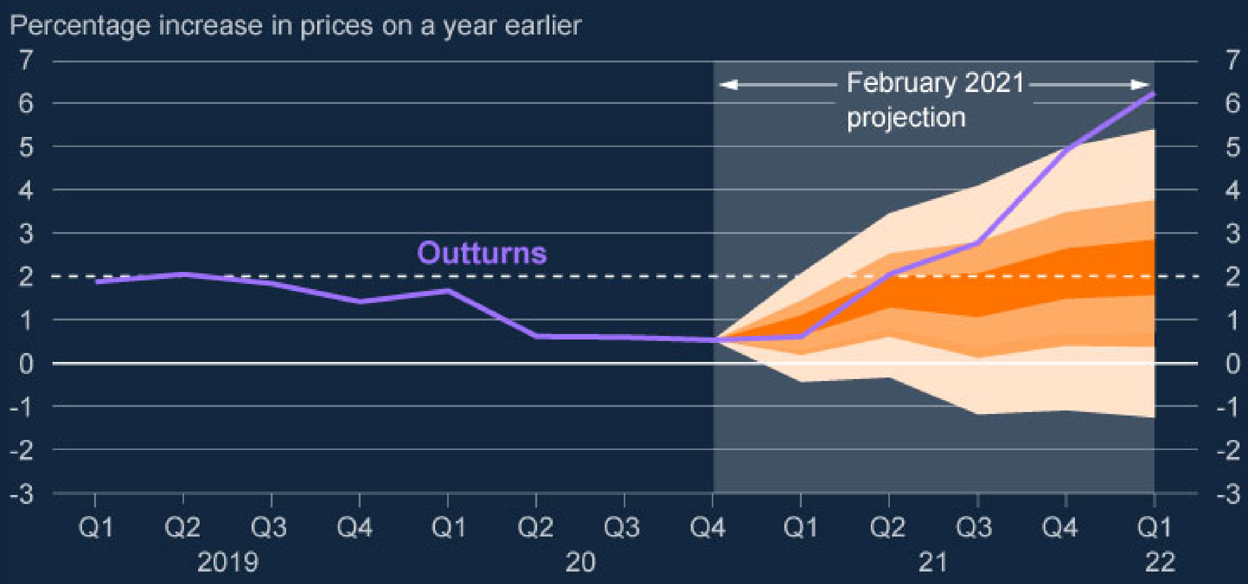
Looking back over a longer period, Bank projections for the unemployment rate have tended to be higher than outturns. In 2015, the IEO found that they had shown statistically significant evidence of bias – with forecasts typically too high – over the period from 1998 to 2014.

CPI inflation was much higher than expected…

CPI inflation accelerated over 2021 and was 4.9% in Q4. This was at the top of the MPC's fan chart in February 2021 (Chart B). CPI inflation was outside the February 2021 fan – something that is expected to occur on 10 out of 100 occasions – in 2022 Q1. CPI inflation was also well above the range of external forecasters' projections (see the annex in the **February 2021 Report**). Inflation outturns in the US and euro area have also been much higher than projected by their central banks at the start of 2021, as these economies were hit by similar global price shocks to the UK. These global price pressures are a key reason why the pandemic has had less of a disinflationary impact than expected.

Chart B: CPI inflation was much higher than MPC expectations…

Quarterly CPI inflation outturn and projection in the February 2021 Report (a)



Sources: ONS and Bank calculations.

(a) See footnote (a) under Chart A.

…mainly reflecting higher global energy and tradable goods prices.

The majority of the CPI inflation overshoot was due to unexpectedly sharp increases in goods and energy prices (Chart C). These prices are predominantly determined at the global level, although domestic factors, such as competitive pressures and the pricing environment, also matter.

Goods prices accounted for over half of the increase in CPI inflation above the February 2021 projection. As described in Box B of the **February 2022 MPR**, the production of many goods in the CPI relies on global supply chains. Strong global demand for particular goods, as well as some disruption to supply, created bottlenecks in those supply chains. That put upward pressure on tradable goods prices globally, and UK firms passed through some of the associated increase in costs to their customers.

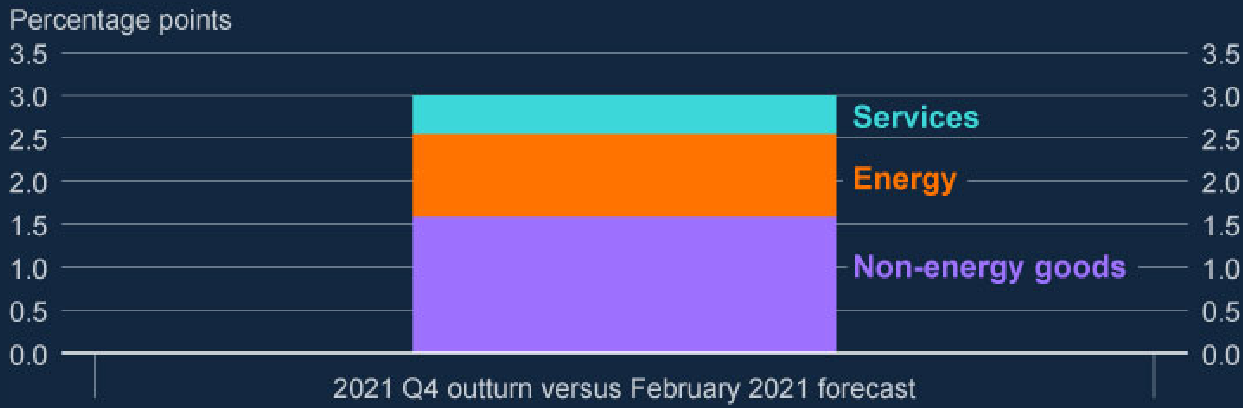
Energy prices accounted for one third of the increase in inflation above the February 2021 projection. The rise in prices relative to the conditioning assumption was due to demand and supply factors (see Section 3). Wholesale gas prices rose sharply in 2021 (Chart 3.1). This had a knock-on effect on household energy prices, as the price caps set by Ofgem increased by 17% for gas and 9% for electricity last October. Sterling oil prices also increased and were around 45% higher in 2021 Q4 than the February Report assumption. This meant fuel prices, which were pulling down on inflation at the start of 2021, increased much more sharply than expected.

Higher-than-expected CPI inflation is partly due to a rise in services inflation, reflecting the tightening in the labour market.

Services prices accounted for 0.5 percentage points of the 3 percentage point forecast error on inflation in 2021 Q4 (Chart C). These prices are particularly influenced by domestic costs such as wages, so the rise probably reflects the marked and unexpected tightening in the labour market in 2021 and the associated pickup in underlying wage growth (see Section 3 of the **February Report**). Services price inflation was 3.3% in 2021 Q4, its highest rate since 2013.

Chart C: …as energy and goods prices increased by much more than expected

Contributions to the CPI inflation forecast error (a)



Sources: ONS and Bank calculations.

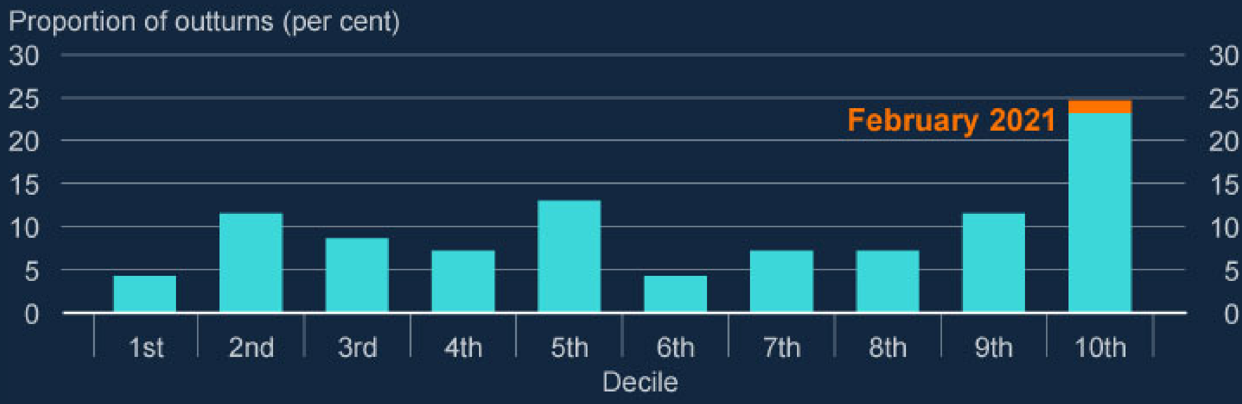
(a) This decomposition of the news in CPI inflation is based on a component-level forecast at the time of the February 2021 MPR that was broadly consistent with the MPC's central projection.

Assessing the MPC's CPI inflation forecasts over time

Outturns for CPI inflation have been relatively evenly distributed within the MPC's fan charts since 2004, although the proportion of outturns in the top decile has been larger than would be expected (Chart D). If the fan charts accurately describe the uncertainty faced by the MPC, then absent any news in the conditioning paths, outturns would be expected to lie evenly across the fan chart distribution over time, with 10% of outcomes in each decile.

The majority of outturns in the top decile of the MPC's fan charts relate to the years 2007 and 2009–10, the period around the global financial crisis (GFC). Oil prices rose sharply in 2007. This increased fuel prices and pushed inflation higher than projected at the time. The sterling exchange rate depreciated following the GFC. This increased the price of imports and resulted in inflation being higher than expected over the 2009–10 period.

Chart D: CPI inflation outturns across deciles of the MPC's fan chart probability distribution (a)



(a) Calculated for the market rate fan charts published since February 2004. Five quarters ahead.

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.

GDP – gross domestic product.

HICP – harmonised index of consumer prices.

LFS – Labour Force Survey.

PCE – personal consumption expenditure.

PMI – purchasing managers' index.

RPI – retail prices index.

RPI inflation – inflation measured by the retail prices index.

Abbreviations

CBI – Confederation of British Industry.

CIPS – Chartered Institute of Purchasing and Supply.

ECB – European Central Bank.

EU – European Union.

FOMC – Federal Open Market Committee.

FTSE – Financial Times Stock Exchange.

GfK – Gesellschaft für Konsumforschung, Great Britain Ltd.

HMRC – Her Majesty's Revenue and Customs.

IEO – Independent Evaluation Office.

IMF – International Monetary Fund.

LTV – loan to value.

MPC – Monetary Policy Committee.

MTIC – missing trader intra-community.

OBR – Office for Budget Responsibility.

Ofgem – Office of Gas and Electricity Markets.

ONS – Office for National Statistics.

PAYE – Pay As You Earn.

PNFCs – private non-financial corporations.

PPP – purchasing power parity.

RTI – Real-time information.

REC – Recruitment and Employment Confederation.

S&P – Standard & Poor's.

SMEs – small and medium-sized enterprises.

WEO – IMF World Economic Outlook.

Symbols and conventions

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

n.a. = not available.

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

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

1. For detailed distributions, see '**Monetary Policy Report chart slides and data – May 2022**'. External expectations for monetary policy are now covered in the **Market Participants Survey**.
2. For example see the **May 2021** and **May 2020** Reports.