

1. UK economic outlook

By Rory Macqueen, Stephen Millard, Urvish Patel and Kemar Whyte¹

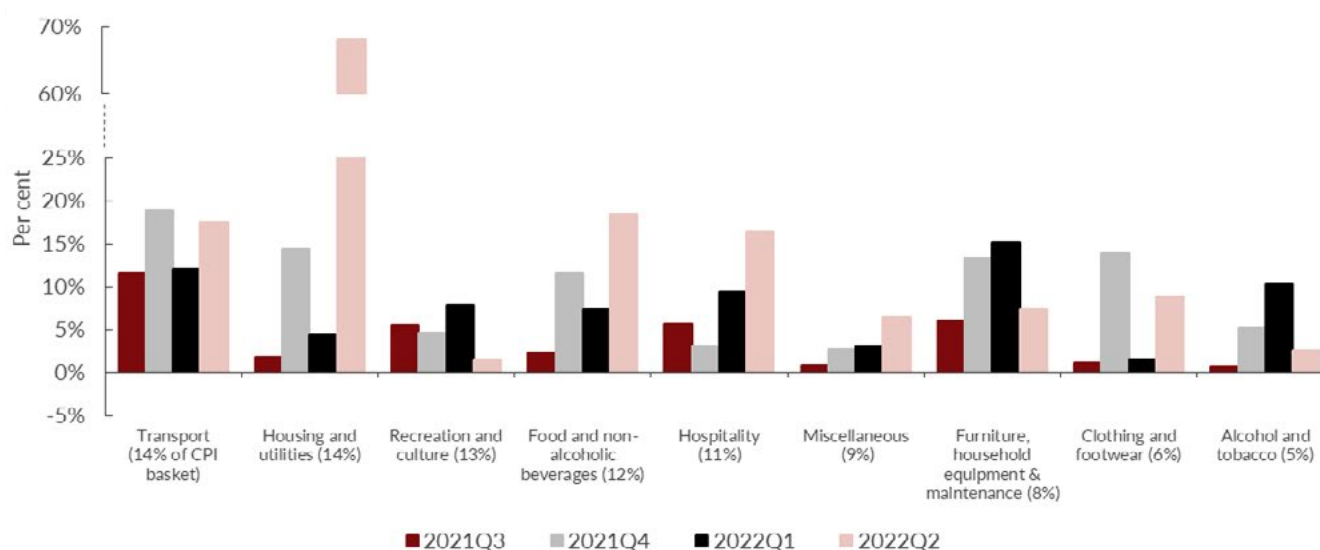
Economic background

As we publish our Summer Economic Outlook, the UK economy may already be in recession and, with consumer price inflation close to double figures, the threat of stagflation has returned for the first time since the 1970s. Though comparisons with that period are generally overstated, the UK economy – following a decade of stagnation and Brexit – was not in a healthy position when the Covid-19 shock arrived: the 'lockdown recession' actually began with a small contraction in the fourth quarter of 2019.

When the pandemic first arrived, fiscal and monetary policy responded appropriately to protect the balance sheets of both businesses and households but, when it became clear that the economy was emerging from the shadow of the pandemic, monetary policy was too slow to begin normalisation and failed to respond to the first round of inflation, which was generated by supply chain disruptions in 2021. The Monetary Policy Committee (MPC) of the Bank of England was not aided by fiscal policy, which switched too quickly to contractionary, and – not for the first time in recent history – left the monetary authorities reluctant to raise rates with demand still fragile.

This initial rise in prices was then followed by Russia's February invasion of Ukraine, which drove energy prices yet higher and disrupted the supply of food items, experienced in the UK as a terms-of-trade shock. Because of the Ofgem energy price cap, in the UK this led to a large rise in inflation from April in particular (see Figure 1.1).

Figure 1.1 Annualised growth in prices in each quarter



Source: ONS, NIESR calculations

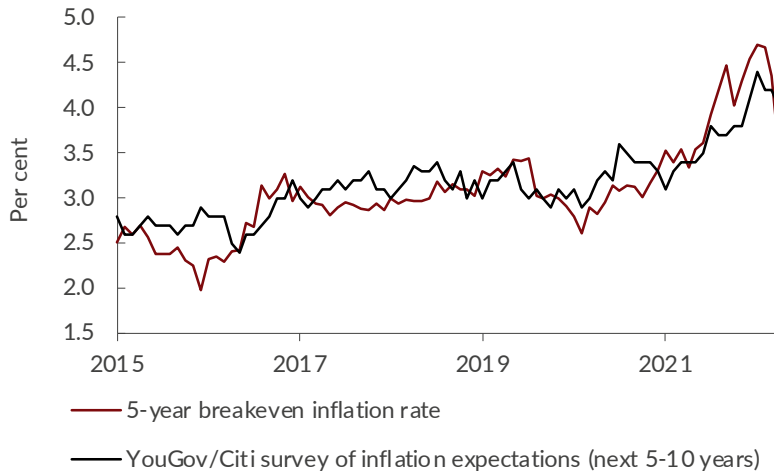
Note: Sectors ordered from largest share of the CPI basket (left) to smallest (right), excluding the smallest three sectors: Education (3%), Communication (3%) and Health (2%). Each bar represents the twelve-month inflation rate implied by the three-month change in prices.

Both of these shocks were exogenous from the point of view of UK economic agents. What will determine whether they are followed by a third wave of inflation is the degree to which rising global input prices are passed on by businesses to higher UK consumer prices, and the response of nominal wages. If firms protect profit margins and workers protect real wages, then domestically generated inflation could prove more stubborn. Inflation expectations have risen over the past year but on some measures have recently fallen a little (see Figure 1.2). This is probably

¹ The authors are grateful to Bart van Ark and Jagjit Chadha for helpful comments, and to Joanna Nowinska for preparing the charts and the database underlying the forecast. The forecast was completed on 18 July 2022; more recent data is incorporated in the text. Unless otherwise specified, the source of all data reported in tables and figures is the NiGEM database and NIESR forecast baseline. All questions and comments related to the forecast and its underlying assumptions should be addressed to Kemar Whyte (enquiries@niesr.ac.uk).

because beliefs about future robust price setting are running head-on into fears about weakening demand and impending recession but also, possibly, because the MPC has started tightening monetary policy. Confidence indicators suggest increasing concern among households, though this is likely to disguise considerable heterogeneity. Growth could potentially be sustained in the second half of 2022 by a side-product of the initial Covid-19 policy response: the £200 billion of largely ‘forced’ savings accumulated by the household sector during lockdowns. But these savings are distributed highly unequally and demand for foreign holidays seems to be surging as millions are reported to be struggling with shopping for household essentials.

Figure 1.2 Expectations of annual inflation



Source: Bank of England, YouGov/Citi, NIESR calculations. Financial market expectations are based on 5-year break even inflation rates.

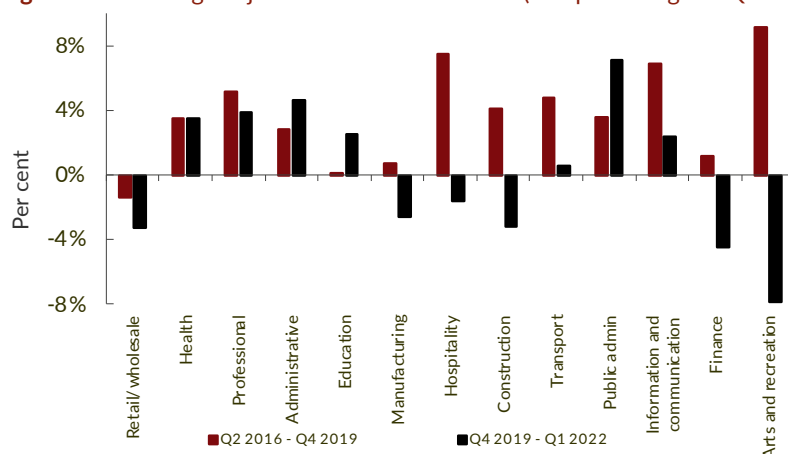
Monetary policy is limited in what it can do to support living standards. With a mandate to ensure price stability, the MPC has raised interest rates five times since late 2021, and market expectations are that it will continue to do so, though this may be difficult to sustain if activity continues to decline and unemployment to rise.

Rather than the central bank, the economic agent with the power to smooth the path to a permanently higher price level is the government. Fiscal policy was loosened somewhat by then Chancellor of the Exchequer Rishi Sunak in May, but this will not have prevented real incomes falling again. With the energy price cap rising again in October, further support may well be needed. Depending on political developments, this may come in the form of tax cuts, which run the risk of stoking further inflation; we think that immediate support would be better directed through targeted transfers. The government also has significant control over public sector wages, which are currently growing much slower than those in the private sector though government-sector wage growth does not feed directly into consumer price inflation, as public services are generally provided without price.

Beyond the unsolved problems of Brexit, most notably arising from attempts to unpick the Northern Ireland Protocol, the long-term challenge facing the UK economy remains its low level and growth rate of productivity. NIESR's Productivity Commission published its Evidence Review in June,² reporting potential priorities as including business support, capital investment including in public transport, 'levelling up' (including in housing availability) and additional investment in skills and training.

Compared with our quarterly analyses over the past two and a half years, Covid-19 makes relatively few appearances when examining the most recent economic data, despite rising case numbers. This reflects not an end to the virus but the increasing extent to which UK businesses and households – willingly or otherwise – are adapting and learning to 'live with it'. This does not mean ignoring the different impacts it continues to have on the sectoral make-up of the UK economy and the differential outcomes arising from that: Figure 1.3 illustrates its negative impact on job creation in hospitality, transport, and arts and recreation.

2 The Productivity Institute, 'Productivity in the UK: Evidence Review', First report of the UK Productivity Commission, NIESR, June 2022. Available at <https://www.niesr.ac.uk/wp-content/uploads/2022/06/Productivity-in-the-UK-Evidence-Review.pdf>

Figure 1.3 Change in jobs since EU referendum (as a percentage of Q2 2016 jobs)

Source: ONS, NIESR calculations

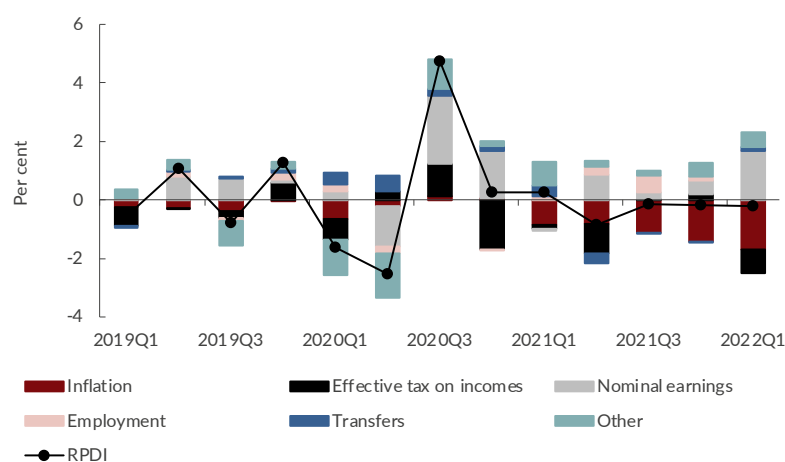
Note: Sectors ordered from largest number of jobs in 2016 (left) to fewest (right), excluding the smallest sectors: Other Services, Real estate, Water, Electricity, Private households and Extraction.

Current economic conditions

Demand and output

Consumption solid in first quarter despite falling incomes

Consumption by households and Non-Profit Institutions Serving Households (NPISH) grew by 0.6 per cent in the first quarter of 2022 but remains 0.4 per cent lower than its pre-Covid level. Real personal disposable income fell by 0.2 per cent in the first quarter: its fourth consecutive quarterly fall. Figure 1.4 shows that this was again driven by increases in taxes and inflation offsetting relatively healthy compensation growth: despite the rise in the National Insurance threshold at the beginning of July, the introduction of the new 'Health and Social Care Levy' at the beginning of April, together with the freezing of income tax allowances, has meant that the tax burden on households has risen in 2022. Annual consumer price inflation has already risen to 9.4 per cent, well above average wage inflation, which is likely to continue to put downward pressure on consumption over the rest of 2022 and, possibly, beyond.

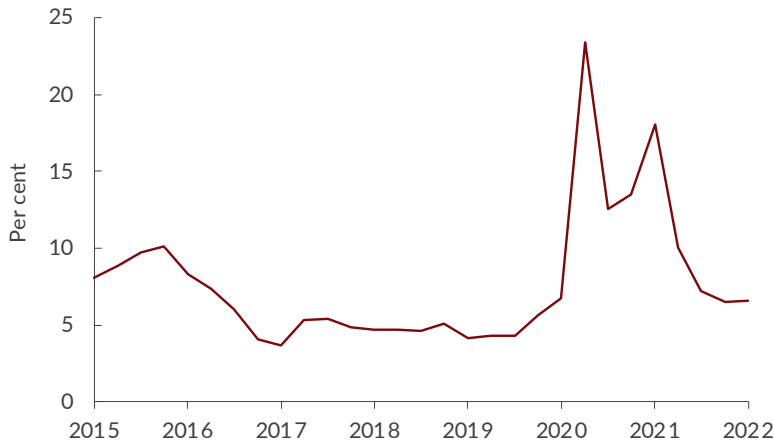
Figure 1.4 Components of quarterly growth in real disposable personal income

Source: ONS, NIESR calculations

Households keep saving...

Despite the ongoing real income squeeze, the savings ratio remained at 6.8 per cent in the first quarter of 2022 (Figure 1.5). We might expect this to fall as households continue to use up the savings accumulated during the Covid-19 lockdowns to maintain their level of consumption. However, it remains the case that the poorest households will struggle to maintain their level of real consumption given they spend a larger fraction of their income on food and fuel and were less able to build up savings during the lockdowns. We discuss the distributional impact of the real income squeeze in Chapter 2.

Figure 1.5 Savings rate



Source: ONS

...as confidence remains low

The GfK Consumer Confidence Survey reached a new record low of -41 in June, its seventh consecutive monthly fall and now slightly lower than it was in July 2008, when the UK economy went into the Great Recession. The forward-looking index for personal financial situation fell to -28, also a record low, and that for the general economic situation fell to -57, roughly in line with where it was in April 2020 and in July 2008.

House price inflation continues to rise

House price inflation in April 2022 was 12.4 per cent, up from 9.7 per cent in March (Figure 1.6). This represents its tenth consecutive monthly rise: the longest streak since 2016. Recent NIESR research by Patel (2022) discusses in detail where the UK housing market might be going and argues that, even if house price inflation falls over 2022 as interest rates are raised in response to the increase in inflation, we are still unlikely to see a housing market crash.

Figure 1.6 UK House Price Index

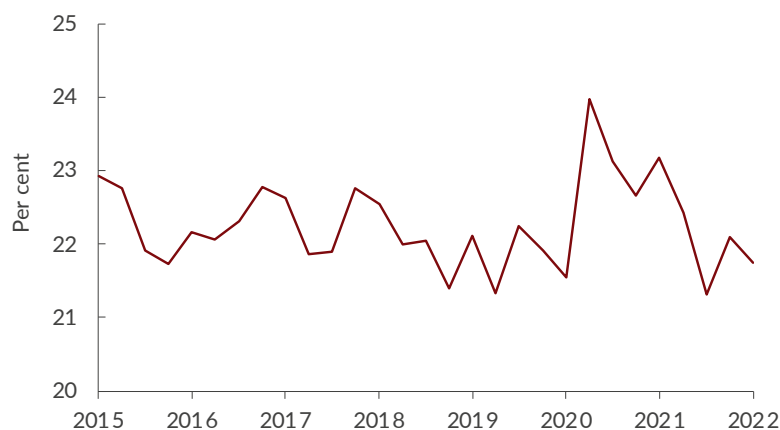


Source: HM Land Registry

Input costs rise and the profit share falls

The ongoing war in Ukraine continues to have a large effect on business sector costs. Producer input prices rose by 24.0 per cent in the year to June 2022, the highest rate since records began in January 1985. Producer output prices rose by 16.5 per cent over the same period, with food products providing the largest contribution. Despite rising prices, the gross operating surplus of private non-financial corporations increased by 2.5 per cent in the first quarter of the year and that of financial corporations by 4.3 per cent though, given the larger increase in nominal GDP (3.2 per cent), the profit share fell slightly, remaining roughly in line with its average level in the years before Covid-19 (Figure 1.7).

Figure 1.7 Profit share in GDP



Source: ONS, NIESR calculations

Investment remains weak...

Business investment fell by 0.6 per cent in the first quarter of 2022 and is now 9.2 per cent below its level in the fourth quarter of 2019. Surveys suggest that investment continued to be weak in the second quarter: three quarters of firms in the British Chambers of Commerce (BCC) Quarterly Economic Survey reported no increase to investment in plant and equipment. In the manufacturing sector 11 per cent more firms reported an increase in investment in machinery or technology than a decrease, the lowest since the first quarter of 2021. The service sector balance also stands at 11 per cent, unchanged from the previous quarter, and there is little expectation that things will improve in the near future, with only 54 per cent of firms expecting their turnover to increase over the next twelve months, down from 63 per cent in the first quarter of 2022. This negative view is confirmed by the Bank of England's Decision Maker Panel (DMP) Survey published on 7 July. Firms reported ongoing supply shortages, with just under two thirds of firms experiencing some disruption to non-labour inputs.

...as corporate credit conditions tighten

The ongoing monetary policy tightening has led to a tightening in corporate financing conditions. Corporate bond yields (UK BBB-rated companies) have risen to 4.5 per cent, as of 11 July (Figure 1.8), and the FTSE All Share index (Figure 1.9) has fallen by around 6 per cent since NIESR's Spring Outlook. In addition to the rise in interest rates, increased uncertainty associated with the ongoing war in Ukraine and UK domestic politics is likely to be bearing down on share prices. That said, the longer-term context remains that – leaving aside the large movements brought about by Covid-19 – UK equity prices and bond yields have been relatively flat for the past five years, implying a relatively flat cost of capital.

Figure 1.8 Yields on UK BBB corporate bonds

Note: ICE BofA BBB sterling corporate and collateralized index (yield to maturity)

Source: Datastream

Figure 1.9 FTSE All-share Index

Source: FTSE

The government has moved to revoke the Northern Ireland Protocol...

The Northern Ireland Protocol Bill would unilaterally rewrite parts of the Northern Ireland Protocol, part of the overall European Union Withdrawal Agreement. Given that passing this bill will mean the UK government reneging on a previously-signed international agreement, we would expect a response from the European Union (EU) and any action that made trade with the EU harder will likely have a negative effect on UK productivity and GDP. It would, of course, have a negative effect on the EU as well, but this would be much smaller as the UK is a much smaller trading partner for the EU (as a proportion of GDP) than the EU is for the UK. We discuss the Northern Ireland economy in more detail in Chapter 2 and in Box D on page 44.

... as Brexit bites

Indeed, there is evidence that the increase in the costs of trading with the EU resulting from the UK's withdrawal has already had economic effects. Freeman et al. (2022) have found that Brexit – specifically, the UK leaving the EU single market and customs union – led to a sudden and persistent 25 per cent fall in UK imports from the EU relative to those from the rest of the world. Less competition from EU imports is likely to have a negative effect on UK productivity, a mechanism stressed in, e.g. Millard et al. (2019). On the other hand, UK exports to the EU relative to those to the rest of the world only declined temporarily and by a smaller amount.

The trade deficit widened at the start of the year...

The UK's trade deficit widened to a record 5.4 per cent of GDP in the first quarter of 2022, 4.2 per cent of GDP if movements in non-monetary gold are excluded. Total export volumes fell by 4.4 per cent while total import volumes rose by 10.4 per cent, meaning that the United Kingdom's net borrowing position with the rest of the world rose to 8.4 per cent of GDP in the first quarter of 2022: a record high, though the ONS has noted some changes to data collection, which may affect this number. More recent data suggests that the trade deficit, excluding precious metals, widened by £8.6 billion to £27.9 billion in the three months to May 2022, with the goods deficit widening to £63.1 billion and the services surplus widening slightly to £35.2 billion. Exports of goods to the EU increased by 2.6 per cent between April and May and are at the highest levels in real terms since December 2020, while exports to the rest of the world increased by 12.7 per cent. Imports of goods from the EU increased by 5.2 per cent in May relative to April, while those from the rest of the world rose by 3.2 per cent.

...despite sterling's fall

The pound has fallen by roughly 4 per cent since our Spring UK Outlook (Figure 1.10), though it remains slightly higher than its average over the past five years. The big picture remains of sterling moving within a small band since late 2016 and, more generally, being relatively weak vis-à-vis its position prior to the financial crisis.

Figure 1.10 Sterling effective exchange rate index



Source: Bank of England

GDP growth slowing ...

Overall economic activity is estimated to have grown by 0.8 per cent in the first quarter of 2022. GDP is currently estimated to have grown by 0.5 per cent in May (after a decline of 0.2 per cent in April) and reached 1.7 per cent above its level in February 2020. Services grew by 0.4 per cent in May, mainly on account of a large rise in GP appointments. Production grew by 0.9 per cent, driven by growth of 1.4 per cent in manufacturing. Construction grew by 1.5 per cent, the seventh consecutive month of growth. Of course, we should be careful putting too much weight on any one month's numbers given the volatility of these series.

... but it looks as though we may have just avoided a recession beginning in the second quarter

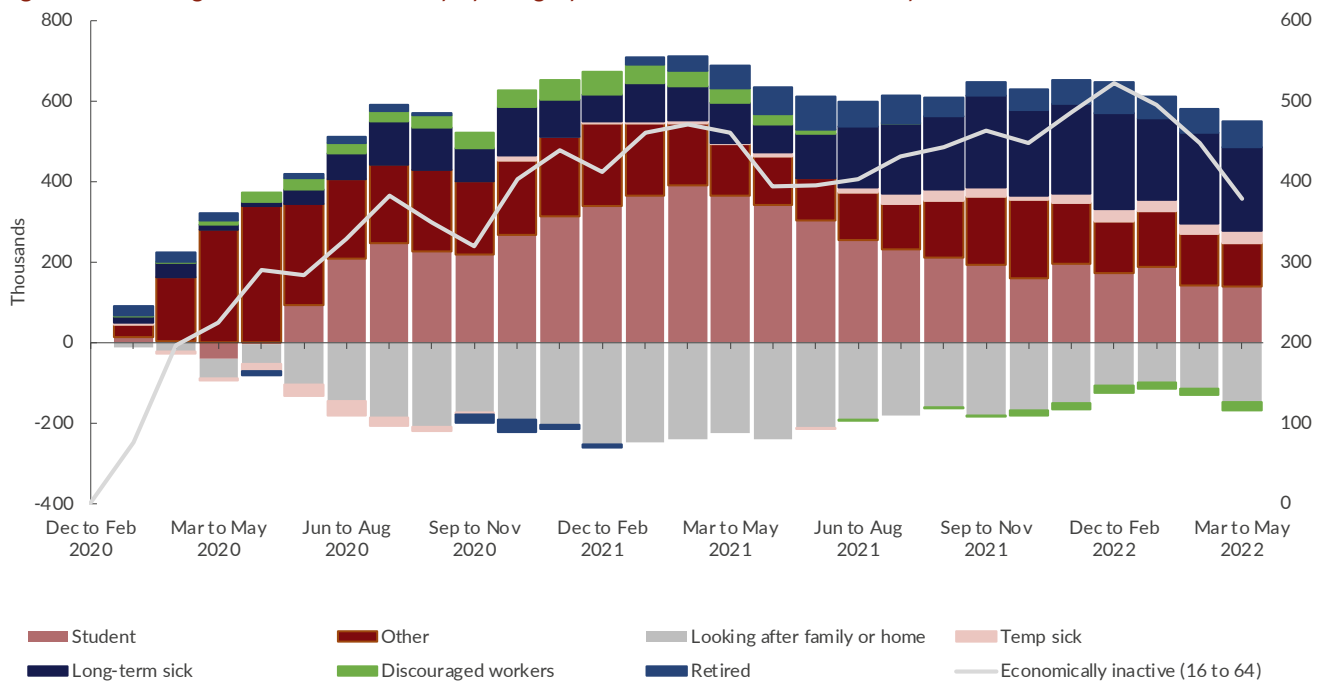
The IHS Markit/CIPS UK services PMI rose to 54.3, from 53.4 in May. We now think service sector activity fell by 0.1 per cent in the second quarter of 2022. NIESR's GDP tracker currently estimates that production grew by 0.6 per cent in the second quarter, though output in this sector is volatile and difficult to predict with accuracy on a quarterly basis. Within production, the IHS Markit/CIPS and JP Morgan Global PMIs for manufacturing both fell in June but remain above 50, and our Tracker nowcast is that manufacturing grew by 0.3 per cent in the second quarter of 2022. The IHS Markit/CIPS construction PMI fell to 52.6 in June from 56.4 in May and the GDP tracker estimates that construction output grew by 2.8 per cent in the second quarter of 2022, giving overall growth in GDP of 0.2 per cent in the second quarter, though all months of the quarter are still subject to potential revisions.

Labour market and productivity

Unemployment remains low, despite employment remaining below pre-pandemic levels

The UK unemployment rate decreased slightly to 3.8 per cent in the three months to May 2022 compared with the preceding three months. A rise in short-term unemployment (up to six months) was largely offset by a fall in long-term unemployment. The UK employment rate increased by 0.4 percentage points on the preceding three-month period, to 75.9 per cent, though still 0.7 percentage points below pre-pandemic levels. Both full-time and part-time employment increased. The economic inactivity rate decreased by 0.4 percentage points to 21.1 per cent in the three months to May, including falls in each of the reasons for inactivity (Figure 1.11). Box A on page 15 looks at the labour market in historical context, stressing the importance of the Public Employment Service in maintaining the labour market attachment of benefit claimants to keep the inactivity rate down and ensure continuing increases in employment.

Figure 1.11 Change in economic inactivity by category since December 2019-February 2020



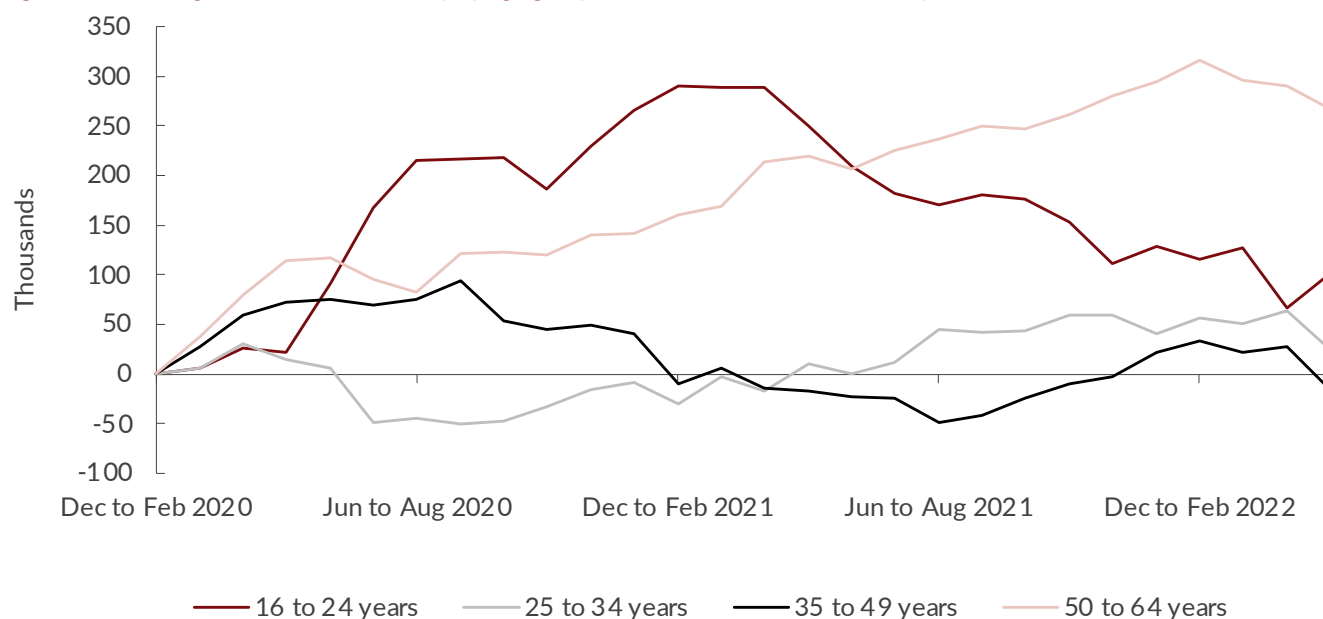
Source: ONS

Total hours still struggling to recover to pre-pandemic levels

Total weekly hours worked in the UK increased in the three months to May, but remained 6.5 million hours below their pre-pandemic level. Average actual weekly hours worked have returned to around their pre-Covid levels, so the shortfall in hours is driven by there being over 200 thousand fewer people in employment.

The participation crisis continues

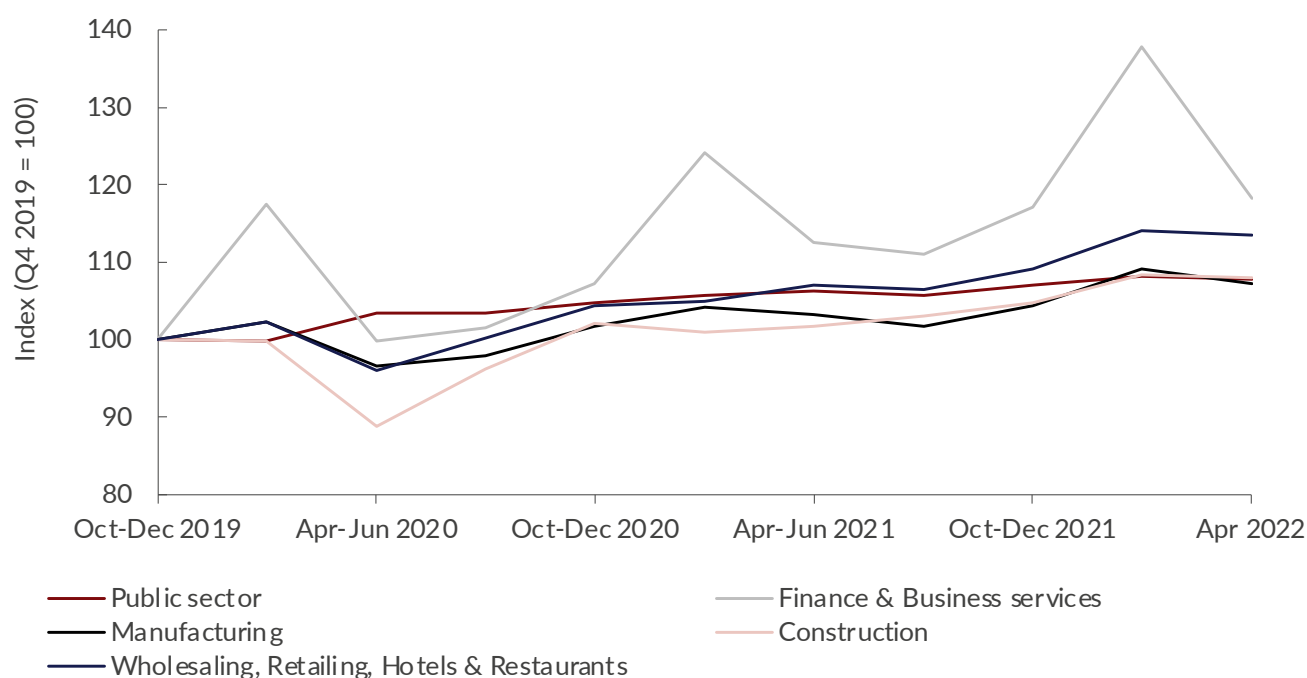
Despite worklessness among older workers remaining high, the growth in older people leaving the labour force is now reversing (Figure 1.12). Recovery in the participation rate will depend on the future course of the pandemic and may also be affected by the cost-of-living crisis, if those who had exited the workforce have to come back to work to maintain their standard of living.

Figure 1.12 Change in economic inactivity by age group since December 2019-February 2020

Source: ONS

Real wages are falling at their fastest rate in two decades

In the three months to May 2022, annual growth in average weekly earnings including bonuses in the UK was 6.2 per cent: significantly below the rate of inflation. Strong bonuses continued to push up headline figures, with regular pay growing by just 4.3 per cent.

Figure 1.13 Average weekly earnings (total pay including bonus) by sector, not seasonally adjusted

Source: ONS

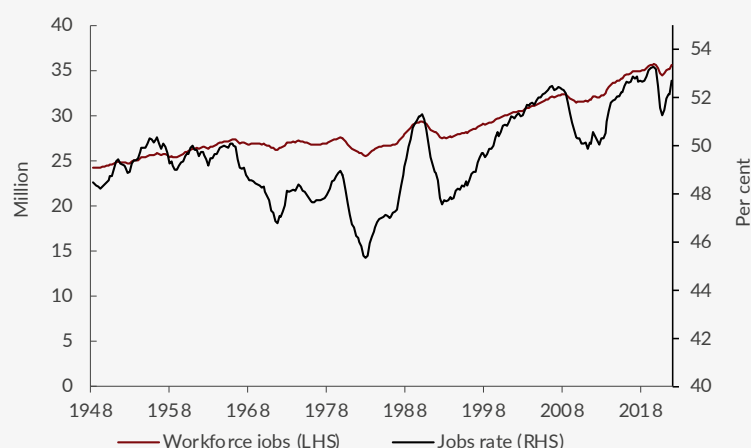
Note: Q4 2019 = 100

Box A: Full employment and the ‘office of hope’

By Bill Wells¹

June 2022 will almost certainly be the month when the number of jobs in the economy and possibly the number of people in employment will reach new record highs. The latest published statistics for the official estimates of jobs and employment – Workforce Jobs and Labour Force Survey (LFS) Employment respectively – are within a sliver of the previous record and are growing rapidly (Figure 1). But given the necessary delays in collection and publication of statistics we will have to wait until September for confirmation.

Figure A1 Total jobs and jobs rate



Source: ONS

Yet, even as the numbers hit record highs, the task of achieving full employment gets ever harder because of a growing population. So, even as the jobs/employment numbers reach the previous peak it would require a further 300-350 thousand more to reach the previous peak in the jobs rate, defined as the ratio of workforce jobs to the adult population. And population is just one of several moving parts: in ‘normal’ times, a net change in (the stock of) jobs of 300 thousand would involve around 7 million ‘hires’ a year and 6.7 million ‘separations’.

In this box, the outcomes for Workforce Jobs from all these moving parts are outlined for the Post-War period both in terms of the number of Workforce Jobs and as a share of (total) population. Also set out is the central role the ‘Office of Hope’ – Employment Agencies/Jobcentres² – played in these labour market developments.³

1945-48: The Great Reallocation

During the Second World War, as well as conscription in the Armed Forces, state direction of labour was a major feature of the labour market. The Ministry of Labour & National Service had responsibility for this.

All key industries could only advertise vacancies through the employment exchanges, and other industries were forbidden from recruiting miners and farmworkers. To fill vacancies in essential industries fully 32 million people registered with the Exchanges, including 8 million women registering by 1942 for national service, which was considered revolutionary. Matching people and jobs also involved compulsion, with a total of 1 million directions in the war, though this was still only a tiny fraction of total engagements.

¹ Former Senior Labour Market Economist in the Civil Service.

² See Price (2000).

³ Focusing on just Workforce Jobs does not provide a full picture of the labour market as it does not include LFS employment – as proposed in the ONS Labour Market Framework. But the focus is on long term trends which is only available for Workforce Jobs.

Just as the War involved Mobilisation in both the Armed Forces and civilian employment, so the period 1945-48 marked Demobilisation in both areas. However, Ernest Bevin the Minister for Labour & National Service banned the word 'demobilisation' and instead referred to the 'reallocation of manpower'.

Unlike the demobilisation after the First World War (and indeed the Napoleonic War) the re-allocation was successful. Between 1945 and 1948 total employment fell by 1½ million but male civilian employment rose by over 3¼ million, whilst the reduction in the Armed Force was over 4 million. The other element of the reallocation was the partial restoration of the 'male breadwinner' model with total female employment down by over ½ million.

The great re-allocation succeeded despite the Severe Winter of 1947, which has some echoes of 2020, when large parts of the economy were closed. As with the 2020 Coronavirus Job Retention Scheme ('furlough' scheme) large numbers of employees were supported by the state, but in 1947 the payments were to cover for unemployment benefits that were temporarily stopped. The 1947 support was very large but also short-lived with total registrant unemployment in December 1946 at 400 thousand, jumping to 1.9 million in February 1947, but back to 300 thousand by June.

Main trends since 1948

Table A1 Workforce jobs: Numbers and rates: 1948-2022

	Employee Jobs (Millions)	Self- employment Jobs (Millions)	Govt. Employment Programmes (Millions)	HM Forces (Millions)	Total Workforce Jobs (Millions)	Jobs Rate %
June 1948	21.4	1.9	--	1.0	24.3	48.5%
March 2022	31.3	4.1	0.1	0.2	35.6	52.7%
Change	9.9	2.2	--	-0.8	11.4	4.2%

Within total Workforce Jobs the structure of jobs has changed since 1948 as shown in Table 1. Employee Jobs continue to dominate, but Self Employment Jobs have grown even faster, with virtually all the growth after 1979 when there was a shift towards a more decentralised, entrepreneurial economy. Conversely, HM Forces as a source of jobs has declined substantially and is now a very small part of the total workforce.

Government Employment Programmes began and ended the period as a tiny part of the workforce but in the UK and elsewhere they were a more important element in the 1970s & 1980s before disappearing as a major part of the labour market policy landscape. They covered a range of make-work schemes such as Job Creation Programme, workfare such as Project Work, and Government Funded third sector activities such as Community Programmes (see Macqueen, 2020).

The largest of the measures was the Youth Training (YT) Guarantee which essentially had the same objectives as the Youth Employment Service: providing a universal service which provides a seamless transition for 16-year-old school-leavers into a job or training within 8 weeks. As a result, under 18s eligibility for Unemployment Benefits was removed. However, within a decade the YT Guarantee had disappeared. Yet the benefit eligibility was not restored, so there is a serious gap in the help available to Under 18s.

1948-66: Full employment

Increases in the Job Rate from cyclical peak to peak and trough to trough provide a good summary indicator of a structural improvement. The period 1948-66, therefore, can be seen as one of full employment with, particularly in the 1960s, rising numbers of jobs keeping pace with the rapidly growing population.

And, just as the work of the Employment Exchanges helped make the Great Reallocation a success, so it also helped make a success of this period. The help for each unemployed claimant was based on regular and

frequent contact – twice a week – with more help as duration without getting a job increased. Nor did it take very long for the extra help to start: after a month unemployed, claimants were given a special interview with a placing officer. Thereafter there were further review meetings, including a reset interview with the National Assistance Board for the few who reached 6 months. By contrast, now it takes at least a month to get on Universal Credit and the interventions are monthly. So, before 1966, only around 200-250 thousand were unemployed for more than a month. By 1986, before Restart was introduced, the equivalent figure was around 2¾ million.

This active management of the registers also applied to sickness benefits (SB) where, despite around 10 million people joining SB at any one time, there were only around 1 million on the count. Nor did many of them move on to Disability Benefits.

1966-83: Stagnation

The contrast between the period 1948-66 and the next period, 1966-83, is marked. The number of jobs stagnated between 1966 and 1979 – historically unusual – before falling substantially in the 1980s recession. The deterioration in the labour market is generally attributed to the recessions of the 1970s and 1980s but, in an echo of the current situation, the size of the workforce fell by 1 million between 1966 & 1971.

This was a period where the focus shifted away from helping the long term unemployed and inactive look for and find work towards a) helping the short term unemployed and even those working b) ‘protecting’ jobs and industries – whether through the Temporary Employment Subsidies or bailing out ‘lame ducks’ and c) shifting away from jobsearch assistance towards skill/human capital acquisition. Whether through the Robbins expansion of universities, the Raising of the School Leaving Age to 16 (ROSLA) in 1972, or the advent of the Manpower Services Commission which downplayed the role of the Employment Service and focused much more on skills.

Symbolic of these changes is that between 1982 and 1986 the unemployed no longer had to visit a Jobcentre to receive benefit, but only had to attend the benefit office. It is not surprising, therefore, that there was a build-up of unemployed workers on unemployment benefits for long durations – with many on these benefits ‘inactive’, i.e. not looking for work. And, without active management of ‘inactive’ benefits (and the abolition of the temporary Sickness Benefit), durations on disability and lone parent benefits built up.

1983-2015: Recovery in employment

For the period 1983-2015 the UK has been a successful employment performer, with each employment cycle peak and trough higher than the previous one. These structural improvements favoured the most disadvantaged in society and could, therefore, be regarded as ‘levelling up’. They were also achieved despite a growing proportion of pensioners and a rapidly growing population, and the Jobs Rate is now substantially higher than the 1966 full employment peak.

Policy will have helped this improvement. From 1986 when Restart was introduced – a review interview for the long term unemployed – the pre-1966 approach was re-introduced and extended to new groups. Regular and frequent contact (although not as frequent as pre-1966) with a focus on ensuring that the claimant was active in the labour market – ‘available for work’ and ‘looking for work’. Essentially the approach extended the working age population into new areas – whether lone parents with children over 3 or women (and men as the 1980s early retirement policies were finally reversed) aged 60-66 as part of the equalisation of the state pension age.

2015 onwards

It is probably too soon to see if there has been a structural improvement in the labour market since 2015. It depends on how the introduction of Universal Credit (UC) has improved things – particularly for the most disadvantaged – and whether it can successfully deal with the labour market aftermath of the pandemic. Total hiring is at record levels – 8.2 million over the past year compared to 7 million normally. But, as in the period 1966-83, it does not seem that the focus of UC help is on the most disadvantaged. Rather it seems to be focusing on the short term unemployed and those in employment.

So, whereas between 1999 and 2015 the numbers on out of work benefits (unemployed and health-related) fell from 5 to 3 ½ million, since then they have risen back to over 5 million. And the fall between 1999 and 2015 was even faster than the total working age (16-64) workless – International Labour Office (ILO) defined unemployment and inactivity combined. So, in 2015, the out of work benefit share was down from 1 in 2 of the working-age workless to 1 in 3. Since then, it has risen back up to 1 in 2.

Those who are on out of work benefits are increasingly dominated by those who have been on benefits for a very long time or are stuck on the 'legacy' benefits. Most of the massive cohort who started taking up UC during the first lockdown are now reaching durations of 2 years or more and are still there. There are now around 2 million on an 'out of work conditionality' regime, up from ¼ million pre-crisis. And of these 2 million only 700 thousand are on the 'job search' regime – the rest are on 'inactive' conditionality regimes and, as a result, have much less contact with the Jobcentre and much less Welfare to Work help.

In summary, in line with the conclusions of OECD (2006) the Public Employment Service has proved central to delivering a successful and inclusive labour market. However, to deliver inclusive employment growth it is necessary to focus the most attention on the most disadvantaged, to bring the inactive into the labour force so they are in a position to take up a job, and to provide individual help to devise a jobsearch strategy that maximises their chances of finding and getting a job that suits them.

References

- Macqueen, R. (2020) Labour market policies and productivity in 'Prospects for the UK economy', National Institute Economic Review 254, November 2020
- OECD (2006), Employment outlook, Paris: OECD.
- Price, D (2000), Office of hope: A history of the public employment service in Great Britain, 1910-97, London: Policy Studies Institute.

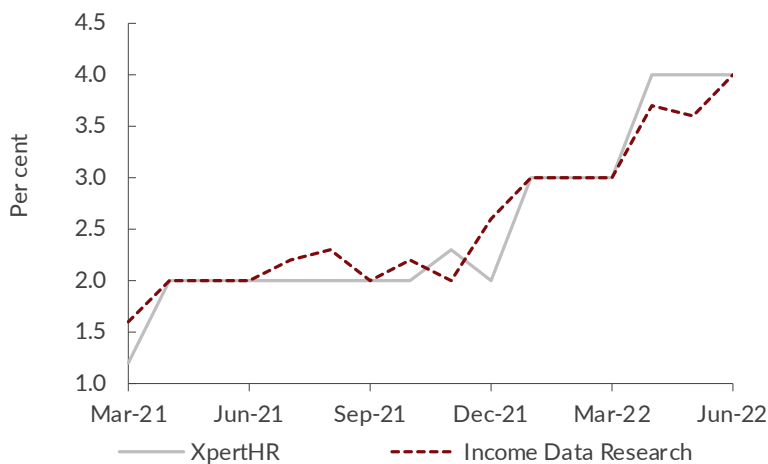
Headline private sector wage growth remains strong...

Growth in earnings have continued to be stronger in the private sector, growing by 7.2 per cent in the year to March-May, than in the public sector, which saw growth of 1.5 per cent. Variation in pay growth across sectors may continue to diverge as firms will face different pricing power environments when deciding whether and how to absorb or pass on increases in costs. NIESR's Business Conditions Forum in July heard that some private sectors employers are raising wages as a result of inflation but others are having to raise wages in response to the tight labour market.

...though much of this reflects pay drift, including bonuses, rather than settlements

The June KPMG and REC jobs report suggests that permanent starters' salaries rose at one of the quickest rates since the survey began because of significant competition among candidates who are already scarce in supply. Incomes Data Research found that the median pay award for the UK as a whole was 4.0 per cent in the three months to June 2022, slightly up from 3.6 per cent in the three months to May 2022. Pay awards at the upper quartile grew at an annual rate of 5.5 per cent, compared to 3.0 per cent at the lower quartile. The median pay award for the private sector was 4.0 per cent. A similar measure from XpertHR found the median also at 4.0 per cent in June (Figure 1.14).

Figure 1.14 Median pay settlements (three-month average)



Source: XpertHR, IDR

Vacancies continue to grow, but more slowly

In the three months to June 2022, the number of job vacancies increased to a new record of 1.3 million although the rate of growth in vacancies continues to slow. The June jobs market report by KPMG and REC indicated that, on a regional basis, London experienced the largest increase in permanent starting salaries out of the main English regions in May. Meanwhile, at the sector level, private sector demand for staff was stronger than public sector demand, especially in IT and computing followed by the hotel and catering sector.

Productivity growth shows little sign of picking up

UK productivity, measured by output per hour worked, declined by 0.6 per cent in the first quarter of 2022 compared with the previous quarter, although it remained 1.4 per cent higher than pre-pandemic levels. The number of hours worked increased by 1.3 per cent on the quarter, far more than the increase in gross value added (+0.8 per cent). Productivity in public services declined for the first time since the first quarter of 2021, falling by almost 3 per cent on the quarter, largely attributable to the fall in output in healthcare activities such as test and trace and vaccinations.

Fiscal policy

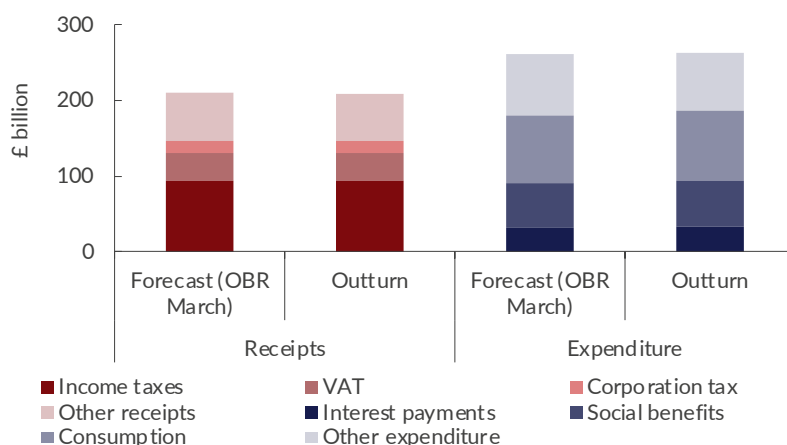
Some help has been forthcoming with the rising cost of living

Former Chancellor of the Exchequer Rishi Sunak announced additional financial support in late May to help households with the cost of living. Additional borrowing in financial year 2022-23 was estimated at just under £11 billion in the Office for Budget Responsibility's (OBR) Fiscal Risks and Sustainability report, with £15.1 billion of transfers to households offset by around £4.5 billion coming from a windfall tax – or 'Energy Profits Levy' – on the profits of North Sea oil and gas companies.³ We welcomed this near-term fiscal loosening at the time⁴ as likely to reduce the chances of a recession and the severity of any recession, though the net effect of the package will be less stimulative to GDP overall if the windfall tax leads to lower investment by energy companies.

The first signs are of borrowing slightly overshooting March's forecast, even discretionary loosening...

Early data for fiscal year 2022-23 suggest that borrowing may overshoot the OBR's March forecast: a result compatible with weaker growth than in the OBR's forecast scenario, though these data are provisional and subject to revision. As of the end of June, borrowing for the fiscal year to date was 7 per cent (£3.7 billion) higher than in the March forecast, thanks in part to higher-than-expected interest payments on inflation-linked debt. Spending in the first three months of the fiscal year did not include any of the additional support announced in May, which began to be distributed in July. At the end of June, public sector net debt was estimated to stand at 96.1 per cent of GDP: 0.6 per cent of GDP lower than forecast, despite the above-forecast borrowing, as a result of higher nominal GDP.

Figure 1.15 Public finances April-June 2022



Source: Office for Budget Responsibility

...and rising interest rates present a risk to fiscal forecasts

Higher and more persistent inflation will have fiscal consequences, both directly and indirectly through higher interest rates. The OBR's March analysis suggested a large but temporary rise in government debt interest payments to £83 billion in fiscal year 2022-23. Set against this, greater fiscal drag and higher nominal earnings support government income. While higher interest rates only feed through gradually to interest payments thanks to UK gilts' long average maturity, with a large proportion of government debt effectively financed at Bank Rate, there is a risk that the flow of 'net interest margin' payments from the Bank of England's Asset Purchase Facility (APF) to HM Treasury may turn negative. Recent NIESR research⁵ estimated an £11 billion loss over the past year from not taking out insurance against interest rate rises by swapping bank reserves for government securities.

While policy should be looser, this ought to be both targeted and sustainable

There has been recent political focus on the potential for tax cuts as a response to rising prices but, while looser fiscal policy may be an appropriate response to falling household living standards, any policy intervention ought to be appropriately targeted. Cuts to income tax in general disproportionately support the incomes of better-off

3 See 'Is a Windfall Tax a Good Idea?' (Millard, S., Naisbitt, B., & Patel, U.), NIESR Monday Interview, 23 May <https://www.niesr.ac.uk/blog/windfall-tax-good-idea>

4 See 'Cost of living: Rishi Sunak's support package lowers risk of recession, economists say', Sky News, 27 May

5 'Quantitative Tightening: protecting monetary policy from fiscal encroachment – One Year On', NIESR, 10 June, available at <https://www.niesr.ac.uk/news/quantitative-tightening-protecting-monetary-policy-fiscal-encroachment-one-year>, based on Allen et al (2021)

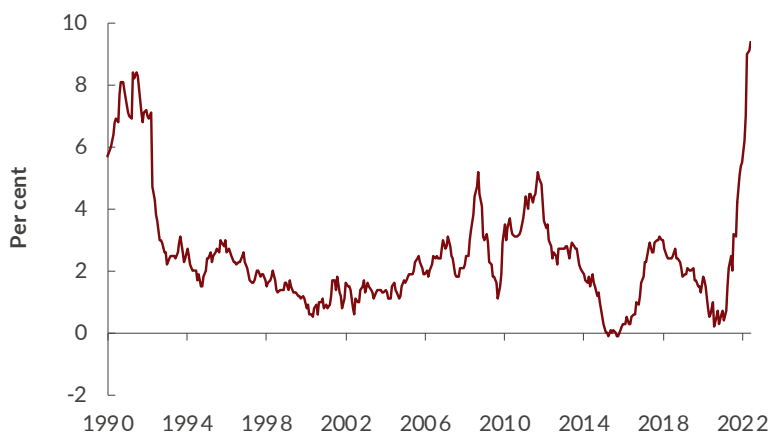
households, on whose balance sheets Covid-19 lockdown savings are already concentrated. From both distributional and macroeconomic standpoints, any fiscal loosening would be better directed to Universal Credit (see Chapter 2). Furthermore, the long-term sustainability of any such loosening ought to be weighed up in the context of the OBR's recent Fiscal Risks and Sustainability report, which estimated that bringing government debt back to 75 per cent of GDP – the level at which it stabilised in the Government's pre-pandemic March 2020 Budget – would require 1.5 per cent of GDP of additional tightening (£37 billion a year in today's terms) at the beginning of each decade over the next fifty years.

Inflation and monetary policy

UK inflation reaches historic high

Twelve-month CPI inflation rose to 9.4 per cent in June from 9.1 per cent in May, marking the eleventh consecutive month that inflation has overshoot the Bank of England's target of 2 per cent (Figure 1.16). Whilst the large increase in April was mainly driven by domestic energy prices, food has been an important driver keeping inflation high in May and, along with fuel costs, in June. In terms of headline inflation, current developments in the UK are similar to those being experienced in the United States and the Euro Area where inflation is currently running at over 8 per cent.

Figure 1.16 Consumer price index inflation (annual per cent)



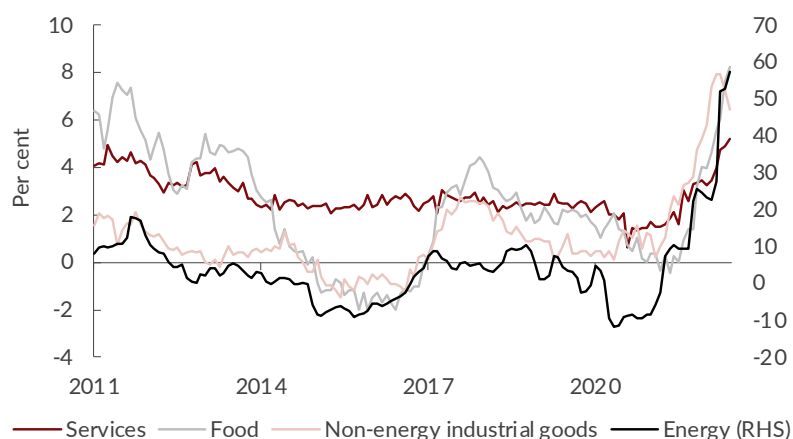
Source: ONS

Recent geopolitical events have exacerbated the upward pressure on inflation

The ongoing overshoot of the Bank of England's 2 per cent inflation target largely reflects previous large increases in global energy and other tradable goods prices. The former has been hugely exacerbated by Russia's invasion of Ukraine, which has also put upward pressure on the wholesale prices of a number of agricultural commodities. Increasing inflation in other tradable goods has been mainly driven by the impact of the pandemic, which shifted demand towards goods but also disrupted supply chains.

However, not all of the excess inflation is directly attributable to external events...

Core CPI inflation (i.e., CPI inflation excluding energy, food, and alcohol and tobacco) has reached record levels, and is higher than levels seen in the United States and the Euro Area. Further, consumer services price inflation, which is more influenced by domestic costs than goods price inflation, has strengthened in recent months: to 4.9 per cent in May from 4.7 per cent in April (Figure 1.17).

Figure 1.17 Inflation (annual per cent) for elements of the consumer price index

Source: ONS

...and the labour market is also tight

The unemployment rate remains low, partly thanks to exits from the labour force (see ‘Labour market and productivity’, page 13). Recent data show that job vacancies continue to match the number of unemployed, with the vacancy rate at a record high of 4.3 per cent. Recruitment difficulties have remained elevated and labour demand has remained strong. These conditions mean firms may come under pressure to consider higher pay awards in order to attract and retain staff, increasing their costs. Firms’ profit margins have also come under pressure from input price inflation, which is at its highest level on record, but it appears that, so far, businesses have been successful in passing on many of their rising costs to consumers.

Monetary tightening is underway, with the potential for a change in pace

The risk exists that global shocks may interact with domestic factors, including the tight labour market and the pricing strategies of firms, to lead to more persistent inflationary pressures. The role of monetary policy is to ensure that, as the adjustment in the real economy occurs, CPI inflation returns to the 2 per cent target sustainably in the medium term, while minimising undesirable volatility in output. The Bank of England has continued to raise interest rates to anchor longer-term expectations at the 2 per cent level and, at its most recent meeting in June, the MPC voted to increase Bank Rate by 0.25 percentage points, to 1.25 per cent. The increase means the MPC has now raised rates at five consecutive policy meetings since December 2021. Box B on page 23 critiques monetary policy over recent years.

Quantitative tightening expected to give some support to rate hikes

In addition to raising interest rates, the Bank of England will no longer reinvest maturing assets held within its Asset Purchase Facility and has intimated that it could even begin sales as early as September. The move to ‘quantitative tightening’ (QT) will shrink the Bank of England’s balance sheet and play a complementary role to rate hikes, potentially allowing for a more gradual rise in the policy rate. Though some have argued that the effect of QT on demand and inflation is likely to be small (e.g., Tenreyro, 2022), it could be a less painful form of tightening for households, given their exposure to increased rates, particularly at a time of headwinds from fiscal policy and higher energy prices. The MPC is now weighing the risk of high inflation becoming entrenched against the risk of a recession. The dovish stance taken at its most recent meeting reflects the view that the UK economy will not grow by much in the next three years.

Box B: A serious monetary policy failure – how policy-makers let the inflation cat out of the bag

By Andrew Sentance CBE

Since the late 1970s and early 1980s, it has been widely recognised that monetary policy needs to play the key role in controlling inflation. High interest rates were used to subdue UK inflation in the early 1980s and again in the late 1980s/early 1990s. On both occasions, the official Bank of England rate was raised to 15 per cent or higher. Inflation was brought under control, but at a severe cost to the real economy. The early 1980s recession was the worst post-war economic downturn in terms of its broader economic and social impact. The unemployment rate rose to double digit levels in 1981 and stayed over 10 per cent until 1987. The UK economy bounced back more strongly in the 1990s, partly because of labour market reforms - introduced in the 1980s and 1990s - and partly as a result of a more pragmatic approach to economic policy under John Major's government when compared with Margaret Thatcher's administration in the early 1980s.

We now face the biggest inflation surge that the UK has experienced for over 40 years, with consumer price index (CPI) inflation widely expected to reach over 10 per cent later this year. This wave of inflation is not confined to the UK, however: North America and Europe are experiencing something very similar. But the response of central banks has been slow and ineffective. In the UK, official interest rates have risen from 0.1 per cent to 1.25 per cent so far. They have risen slightly faster in the United States but by much less in the Euro area. There appears little urgency in raising interest rates across the industrialised world, but these interest rate levels are totally out of kilter with the actual and expected levels of inflation in the UK and other countries in the western world.

This now looks like a major policy failure. In the UK, the Bank of England Monetary Policy Committee (MPC) was established in 1997 to keep inflation under control – at or close to the official inflation target. The target was initially set as a benchmark of 2.5 per cent inflation for the Retail Price Index excluding mortgage interest payments (RPIX) and, since 2004, 2 per cent inflation for the CPI. Before the current inflation surge, there were a few short-term inflation spikes, most notably in 2008/9 and 2011/12. CPI inflation briefly exceeded 5 per cent in each of these but quickly fell back. In general, inflation was kept close to the official target.

The expectation of central banks when inflation started rising last year was for something similar. In the UK, CPI inflation rose above 2 per cent in May last year and was already over 5 per cent in November 2021. But instead of reaching a peak, inflation kept rising and hit 9 per cent in April this year. The projected peak for inflation has now been pushed back to the end of this year, when the latest Bank of England projection (Bank of England, 2022) suggests CPI inflation will reach around 11 per cent. After that, inflation is projected to drop back to the 2 per cent target quite rapidly, over the following 12-18 months.

Though the response of the MPC so far has been to raise interest rates very gradually, its policy response has been very slow and reluctant. After resisting calls for rate rises in the second half of 2021, the first increase came in December of that year. That followed a bizarre situation in November 2021 when the Bank's forecasts pointed to the need for a rate rise, but the majority of the MPC voted against. At the same time, the MPC continued to pump new money into the UK economy through its policy of Quantitative Easing until December, sending a clear signal to financial markets that the MPC was not taking the inflation threat seriously, even though projections for price rises were rising sharply.

One reason for this reluctance to act was that a large part of the inflation surge was being driven by global energy and food prices. As we moved through the year ahead, the MPC argued, the impact on inflation of these upward global price pressures was likely to subside. There was therefore a danger of overkill if interest rates were raised too far or too fast.

The MPC's second argument was that economic growth would slow sharply as the "cost of living crisis" hit the spending power of households. According to the Bank's forecast, this effect was likely to produce very slow growth in the next couple of years with a heightened risk of recession.

However, setting monetary policy is about judging a balance of risks. There are some powerful counter-arguments to the MPC's thinking. These now point to the need for a stronger interest rate response.

First, the current inflation surge is affecting a wide range of prices in the consumer basket, not just food and energy. Of the 12 sub-categories which make up the CPI, all are rising at above 2 per cent per annum and 9 are increasing at over 4 per cent. For clothing and footwear, as well as in pubs, restaurants and hotels, prices are up by around 7-8 per cent or more on a year ago. Manufacturers are also seeing large price increases coming through the pipeline which are likely to affect consumers and business costs later this year. Factory gate price inflation is 15.7 per cent and the cost of manufacturing materials and components is rising by over 22 per cent a year. This evidence points to a much longer and more sustained rise in inflation.

Second, the UK labour market is very tight and this is leading to upward pressures on wages – potentially fuelling future inflation via a wage-price spiral. The unemployment rate – at 3.8 per cent – is very close to the lowest recorded since the 1970s and there are now more vacancies (1.3 million) than unemployed people for the first time since current records began. This is contributing to upward pressure on wages. In the private sector, total pay in the first quarter of 2022 was up 8 per cent on a year ago and regular pay (excluding bonuses) increased by nearly 5 per cent. In addition, demands for pay rises are likely to intensify as employees seek compensation for high headline inflation this year and next.

The expectations of the general public about future price rises are already shifting upward. The latest Citi/YouGov survey shows that inflation expectations for the next 12 months are over 6 per cent and for the next 5-10 years are at 4 per cent. These high expectations are not consistent with the Bank's 2 per cent inflation target and could well rise further as we move through this year.

Another factor pointing to the need for tighter UK monetary policy is the evidence from the housing market, where property prices have been rising at around 10 per cent or more for some time. Extremely low interest rates, coupled with a low level of housebuilding, have fuelled a house price boom over many years. This has been preventing potential new homeowners from getting on the first rung of the housing ladder. Higher interest rates would generate a more affordable level of house prices for new homeowners, bringing social as well as economic benefits.

It is often argued that higher interest rates would not help the economy when a large part of inflation is being generated by high energy and food prices – driven by global factors. But, as the German Bundesbank demonstrated in the 1970s, a robust monetary policy response can also help counter imported inflation by supporting the value of the currency in difficult circumstances. Imported inflation in the UK has been boosted recently by a significant decline of the pound against the dollar – from around \$1.40 last summer to less than \$1.20 over the past year. A stronger monetary policy response from the MPC could have helped resist this currency-driven rise in import prices.

As I argued in a recent blog (Sentence, 2022), more robust monetary policy last year could have headed off the recent surge in inflation in other ways. The pandemic crisis has created a significant negative hit to the supply capacity of the economy. Restricting the growth of demand to bring it more closely into line with supply would have helped to keep price increases in check. A stronger signal from the MPC via monetary policy would also have helped curb the rise in inflation expectations.

Unfortunately, inflation is now “out of the bag” in the UK and many other countries. We face a sustained inflation surge, which can only be brought in check by more robust monetary policy. How high interest rates need to rise to bring inflation in check remains to be seen, but, if the MPC continues its slow and ponderous course, the negative impact on the real economy will be much harsher. Timely monetary policy action is the best response to a significant inflation surge, whatever its cause. The Bank of England and other central banks are now behind the curve and need to catch up quickly before more damage is done.

References

Bank of England (2022), Monetary Policy Report, May 2022.

Sentence, A (2022), ‘Should the MPC have acted differently to control inflation?’, NIESR Monday Interview, 13 June.

Forecast

GDP

Our central case forecast is for GDP to grow by 3.5 per cent year-on-year in 2022, followed by growth of 0.5 per cent in 2023 (see Figures 1.18 and 1.19). We forecast slightly negative growth in the third and fourth (but not the second) quarters of 2022, and the first quarter of 2023: a three-quarter technical recession, but a relatively shallow one.

That said, we now see an increased possibility of a deeper recession. Repeating the analysis in Box B of our Spring Economic Outlook (Dixon, 2022) on the most recent data suggests that there is now a 43 per cent probability of a year-on-year fall in GDP in the fourth quarter of this year.

Figure 1.18 GDP (forecast)

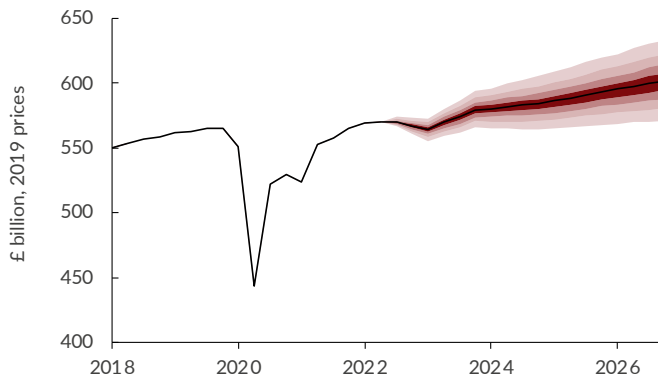
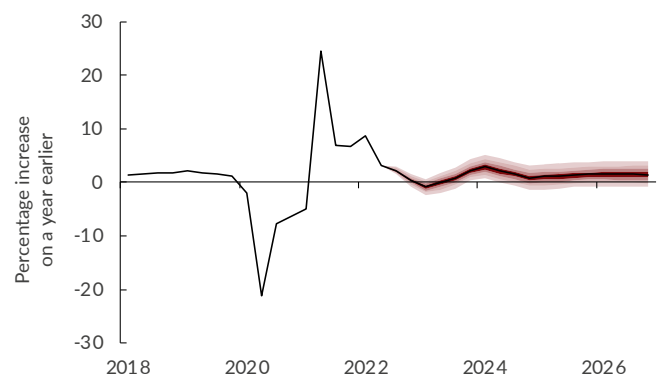


Figure 1.19 Annual GDP growth (forecast)

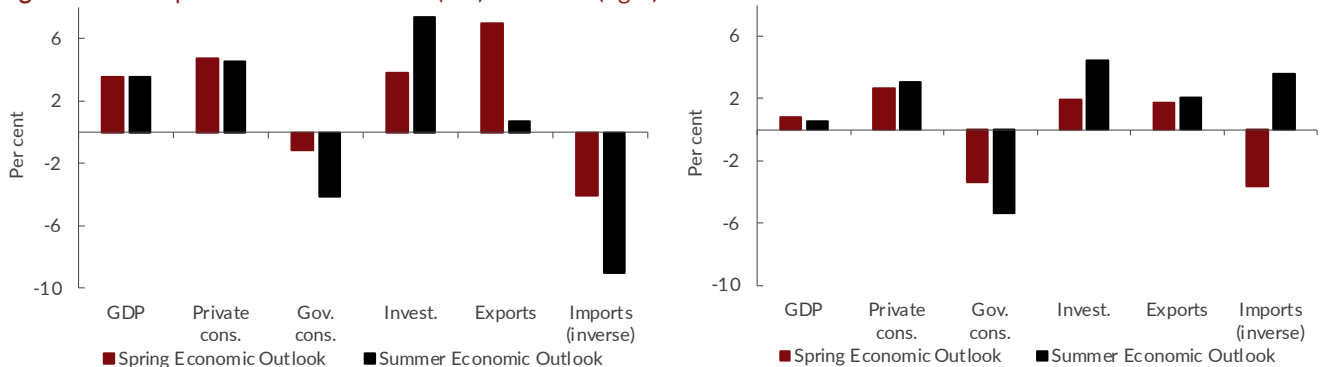


Note: The shades within the fan chart represent a 10 per cent chance that GDP will lie within the boundary of that shade. There is a 20 per cent chance that GDP will lie outside the shaded area of the fan.

Source: NiGEM database, NIESR forecast and NiGEM stochastic simulations.

This represents little change from our forecast three months ago in terms of headline growth. We now expect what growth there is in 2022 to be slightly more balanced towards investment (Figure 1.20), though this is largely down to the housing and government sectors rather than a stronger forecast for business investment. Our assumption that government department budgets remain unchanged in nominal terms means large falls in real spending, which will either translate into large real wage cuts for public sector workers, or cuts to services, or both.

Figure 1.20 Components of GDP in 2022 (left) and 2023 (right)

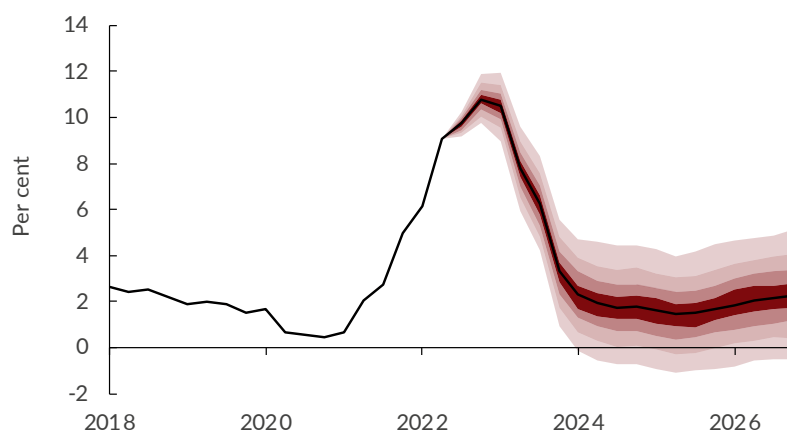


Source: NiGEM database, NIESR forecast

Inflation and monetary policy

In our central case forecast scenario CPI inflation peaks at 10.8 per cent in the fourth quarter of 2022. A combination of slowing growth in international energy prices, monetary tightening, wage restraint and falling real incomes sees it fall to 3.3 per cent by the end of 2023 (Figure 1.21). RPI inflation is forecast to reach 17.7 per cent in the fourth quarter of 2022. The MPC will need to continue to be cautious as it walks a fine line between tightening policy too quickly, worsening the recession, and too slowly, increasing the risk of high inflation becoming embedded in expectations. Our central case scenario assumes that the MPC sets a path for the Policy Rate in line with market expectations as of 8 July, up to the third quarter of 2023, after which it stays flat (Figure 1.22). This path delivers a fall in inflation back to target together with a relatively mild recession.

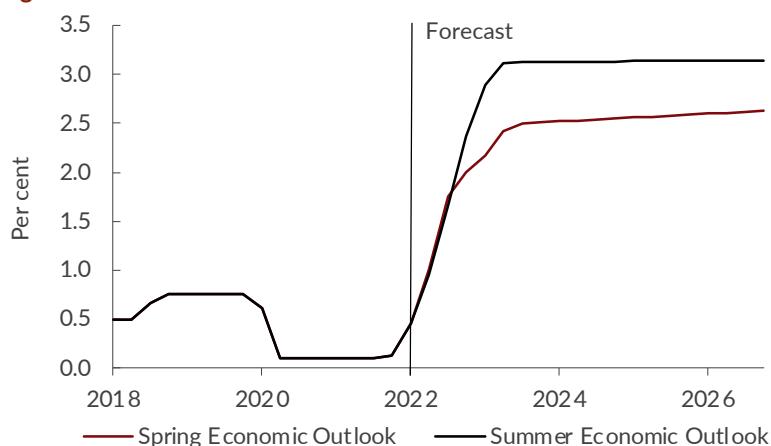
Figure 1.21 CPI inflation (forecast)



Note: Harmonised index of consumer prices. The shades within the fan chart represent a 10 per cent chance that inflation will lie within the boundary of that shade. There is a 20 per cent chance that inflation will lie outside the shaded area of the fan. The Bank of England's CPI inflation target is 2 per cent per annum.

Source: NiGEM database, NIESR forecast and NiGEM stochastic simulations.

Figure 1.22 Bank rate

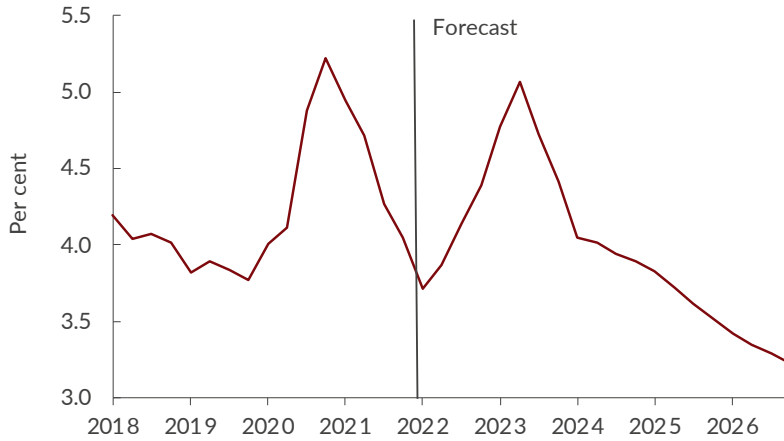


Source: NiGEM database, NIESR forecast

Household incomes

With recession expected, unemployment is forecast to rise somewhat over the coming year, peaking slightly above 5 per cent in the second quarter of 2023 (Figure 1.23).

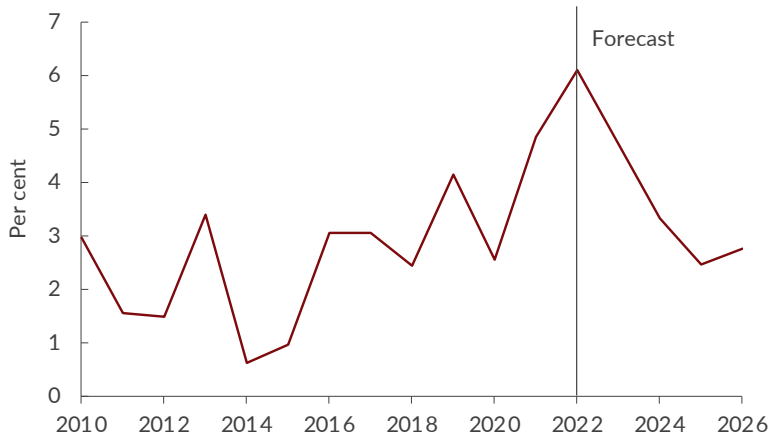
Figure 1.23 Unemployment rate



Source: NiGEM database, NIESR forecast

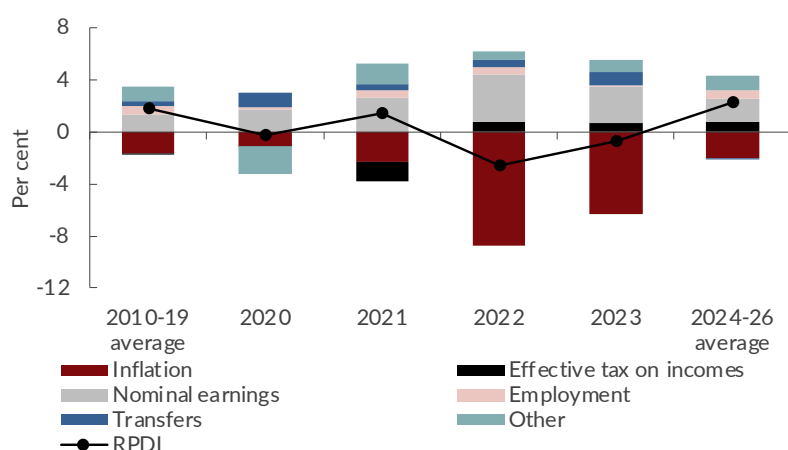
Average earnings are forecast to grow by 6.1 per cent in 2022 and 4.7 per cent in 2023 (Figure 1.24), contributing to growth in nominal incomes of 6.4 per cent and 5.7 per cent respectively.

Figure 1.24 Average earnings growth



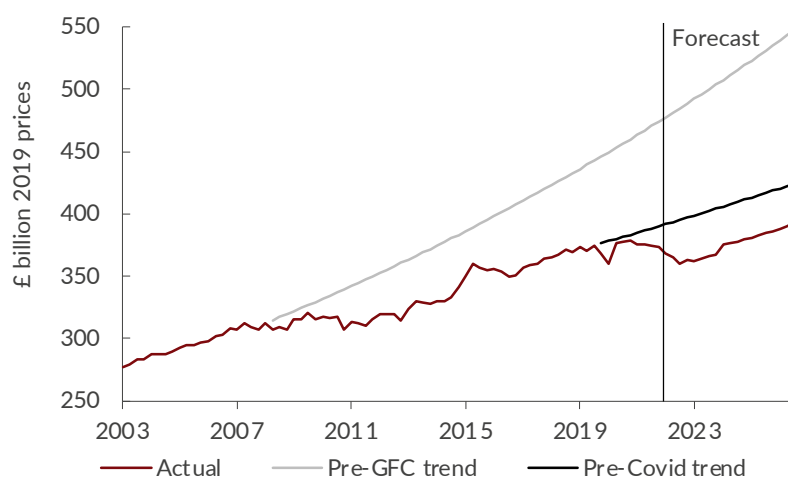
Source: NiGEM database, NIESR forecast

Inflation means that real disposable incomes are forecast to fall by 2.5 per cent in 2022 and 0.8 per cent in 2023. Over the medium term, real incomes grow by around 2 per cent.

Figure 1.25 Contributions to growth in real personal disposable income

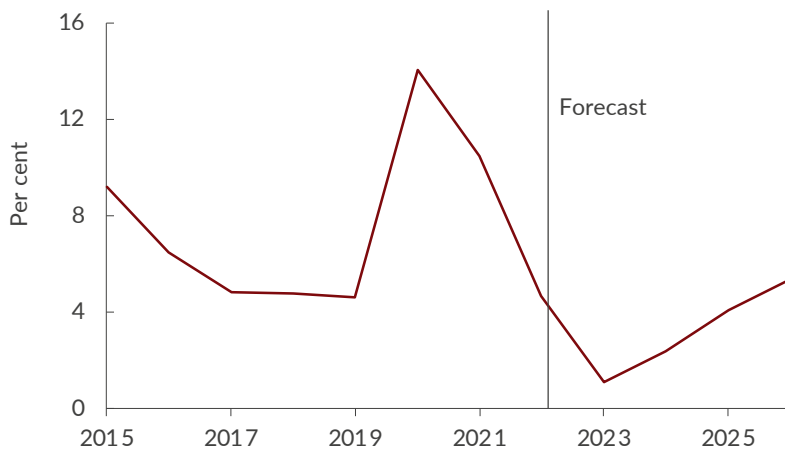
Source: NiGEM database, NIESR forecast

When compared to a continuation of the 2010-2019 trend from the middle of 2021, the present combination of shocks is forecast to lead to household incomes 7 per cent lower beyond 2026 (see Figure 1.26). While we do not forecast a comparable slowing in the growth rate, the short- to medium-term impact is comparable in magnitude to that of the Global Financial Crisis. This did not occur as a result of Covid-19: thanks to fiscal and monetary support, incomes rapidly recovered to trend after the initial shock. Instead, it appears that the permanent relative impoverishment resulted from three shocks. Firstly, Brexit has made imports from continental Europe more expensive and incentivised households to substitute towards more expensive domestically-produced goods and services. Secondly, the recent rise in energy prices has constituted a large terms-of-trade shock for the UK, making the country poorer. Thirdly, the decision to tighten fiscal policy over the 2021-24 period, effectively to pay for the fiscal interventions to support the economy during the Covid-19 pandemic, will reduce the resources available to the private sector.

Figure 1.26 Real personal disposable incomes

Source: NiGEM database, NIESR forecast

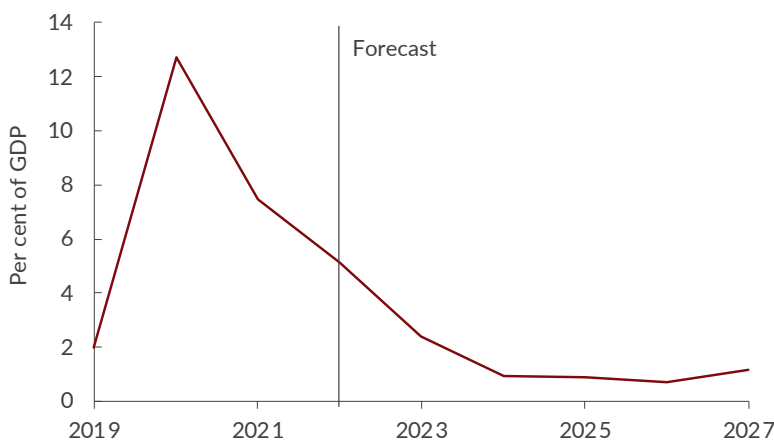
The ability of households to draw down aggregate savings (including forced savings from lockdown periods) to sustain their consumption means that the household savings rate is forecast to fall from 4.6 per cent in 2022 to 1.1 per cent in 2023 before returning gradually towards its pre-referendum level of 6 per cent (Figure 1.27).

Figure 1.27 Savings rate

Source: NiGEM database, NIESR forecast

Fiscal policy

Tightly constrained government consumption helps to close the government deficit in our forecast to 5 per cent of GDP in 2022-23 and 1 per cent in 2023-24, despite the increase in transfers announced in May. Although this means the government has more room to borrow to mitigate the effects of the shocks that have affected the UK economy recently, our central forecast scenario is conditioned on current announced spending plans: no further loosening takes place other than the scheduled cut to income taxation rates in 2024, with public sector pay deals expected to be funded out of department budgets as of the Spring Statement in March. We hope that this assumption is wrong, and that the government uses some of its extra fiscal space to redistribute resources to the most financially vulnerable households (see Chapter 2) as well as allowing government employees' wages to be set according to the requirements of individual sectors rather than with an eye on inflation, to which they do not directly contribute.

Figure 1.28 Public sector net borrowing

Source: NiGEM database, NIESR forecast

Risks to the forecast

Risks to growth are judged to be skewed to the downside. Recession may be avoided by further government intervention, by stronger than expected earnings growth, or by lower savings. If this supports business confidence, the rise in unemployment may also be smaller than forecast. Downside risks principally arise from a larger than expected downturn, including as a result of higher than forecast inflation affecting household incomes, but the risk of further Brexit-related disruption as a result of the Northern Ireland Protocol Bill is also a material one.

Inflation risks are weighted to the upside. Energy price inflation may accelerate or persist for longer than in our central case forecast and nominal earnings may rise more quickly than they appear to be doing at present, contributing to a wage-price spiral as businesses protect their profit margins. The principal downside risk arises from the potential for households to respond to recession by protecting accumulated savings, rather than spending them to get through an assumed temporary downturn, leading to weaker demand.

Risks to the paths for government debt and deficit are also skewed to the upside; indeed, we would advise a slower path for deficit reduction, with targeted support as described in Chapter 2.

References

- Allen, W., Chadha, J., & Turner, P. (2021) 'Commentary: Quantitative Tightening: Protecting Monetary Policy From Fiscal Encroachment', *National Institute Economic Review*, 257, 1-8
- Dixon, P. (2022) 'Box B: How like are we to see a major recession in 2022?' in 'Sailing in Treacherous Seas', NIESR UK Economic Outlook, Spring 2022
- Freeman, R., Manova, K., Prayer, T. & Sampson, T. (2022) 'Unravelling Deep Integration: UK Trade in the Wake of Brexit', London School of Economics, mimeo.
- Millard, S., Nicolae, A. & Nower, M. (2019) 'International trade, non-trading firms and their impact on labour productivity', Bank of England Staff Working Paper No. 787
- Patel, U. (2022) 'What next for the UK housing market?', *Economics Observatory* blog, 29 June.
- Bhattacharjee, A., Chadha, J.S., Macqueen, R., Millard, S.P., Mosley, M., Pabst, A., Patel, U. & Whyte, K. (2022) 'Sailing in Treacherous Seas', NIESR UK Economic Outlook, Spring 2022.