

# 1. UK Economic Outlook

By Rory Macqueen, Stephen Millard, Urvish Patel and Kemar Whyte<sup>1</sup>

## *Economic background*

Since our Spring Economic Outlook the UK economy has been subjected to another major shock, following closely behind Brexit and Covid-19. Russia's invasion of Ukraine has caused widespread devastation to the lives and homes of millions and is having economic consequences across the world, particularly, though not exclusively, through disrupting links with the Russian and Ukrainian economies, and leading to a spike in energy prices. From the point of view of the United Kingdom, this has acted as a terms of trade shock and so would be expected to lead to a rise in inflation and a fall in output and real income. The rise in inflation, in turn, is likely to lead to tighter monetary policy than expected in February.

How long the shock persists will have consequences for the optimal policy response: if the shock to supply is permanent, then real incomes in the UK will be permanently lower. As discussed in Box A on page 7, the government is the only agent capable of either bridging a temporary reduction in households' financial wellbeing or smoothing the path to a permanently lower equilibrium growth path for incomes and consumption. At the time of the Spring Statement in March, the fiscal position had improved relative to expectations, largely as a result of upward revisions to inflation, but – as is now widely accepted – the Chancellor of the Exchequer did not provide sufficient support to households, to the point that the government is reported to already be planning further interventions. This failure of fiscal policy to support the right social outcome again demonstrated the need for a rethink of the fiscal framework, as suggested by NIESR in our Occasional Paper on 'Designing a New Fiscal Framework'.

Consumer price index inflation was already substantially above its target by the time of the invasion of Ukraine, reaching 6.2 per cent in February, principally driven by sharp growth in energy prices in late 2021. Annual services price inflation rose to 3 per cent last summer and generally remained between 3 and 3½ per cent over the following six months; goods prices, in contrast, rose by 3.3 per cent in the year to August 2021, but by 8.3 per cent in the year to February, when the war began. This constitutes an annualised rate of 10 per cent over the intervening period, with the largest month-on-month rises coming in October and November 2021. Since the war began, inflation has begun to accelerate again, with energy price increases first hitting businesses – which are not protected by a price cap – and then households. Real incomes are already in decline as a result of the supply shocks of late 2021 and early 2022. Confidence indicators have turned down sharply as higher inflation is expected to eat further into household incomes.

In February we already expected above-target inflation, resulting from a large increase in energy prices in late 2021, to have a dampening effect on incomes and consumption. With Covid-19 depressing output in 2021, we nonetheless anticipated annual growth of close to 5 per cent in 2022, with business investment also contributing strongly. Once again proving more resistant than anticipated to Covid-19, the UK private sector outperformed expectations for growth at the start of the year, with consumer-facing services continuing to return towards pre-Covid levels of activity. Covid-19 cases began to rise again around the start of March, and hospitalisations surpassed their levels in January, but the economic impact is likely to have been even smaller than that from the first wave of Omicron. This continues a trend of each Covid-19 wave causing a smaller negative economic shock than its predecessor.

Since then, the external shock has grown larger and more prolonged, raising the possibility of stagflation. This will increase the pressure on a monetary policy regime accustomed to responding to demand-driven output fluctuations since the Bank of England gained its independence, and which has only recently begun to normalise policy after its Covid-19 interventions. The problem for the Monetary Policy Committee (MPC) has become stark. The policy interest rate has been raised four times since late 2021, though it remains close to historic lows, while real rates have gone deep into negative territory. NIESR has supported this monetary tightening, but we have raised concerns that it may be 'too little too late': given the known lags in monetary policy operation, the tightening cycle should have begun sooner. Indeed, although the emergency response to the Covid-19 crisis in March 2020 was broadly right (Chadha, 2020), the extra stimulus from quantitative easing and from emergency levels of Bank Rate should

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1 The authors are grateful to Bart van Ark, Jagjit Chadha and Barry Naisbitt for helpful comments, and to Joanna Nowinska for preparing the charts and the database underlying the forecast. The forecast was completed on 25th April 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).

## Box A: The economic consequences of the Ukraine War for UK household incomes

By Urvish Patel<sup>1</sup>

### Introduction

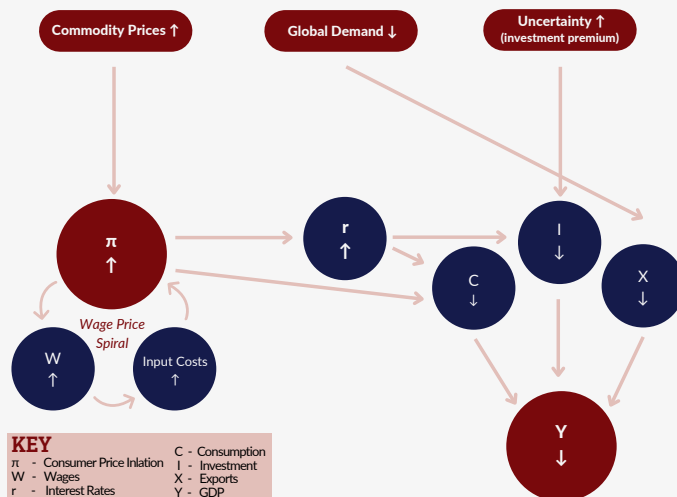
Russia's invasion of Ukraine on 24th February 2022, and the sanctions imposed in response by the UK and other countries, are likely to have a significant impact on the UK economy, despite this country having relatively few direct economic links to Russia. A quantitative analysis was produced by NIESR in early March (Liadze et al, 2022), which should be consulted for more details on the potential magnitudes of the shocks and their impacts.

Both the invasion itself and the sanctions imposed on exports of Russian energy have increased the prices of oil and gas, with oil prices above \$100/barrel for the first time since 2014. In 2019, approximately 8 per cent of the UK's oil and 7 per cent of our gas was imported from Russia, compared to almost 60 per cent of gas from Norway. Electricity, gas and other fuels account for only 3.3 per cent of the UK consumer price index (CPI) basket, compared with 7.7 per cent of the US CPI basket. Nonetheless, with global GDP growth expected to slow down considerably this year, the significant negative supply shock which arises from elevated global commodity prices and a slowdown in global demand will have significant negative spillovers for UK GDP.

The prospect of further increases in energy prices heightens the dilemma facing members of the Bank of England's Monetary Policy Committee (MPC), who need to weigh the risk of higher global commodity prices becoming engrained in domestic inflation against the risk of amplifying the impact of the squeeze on incomes. In this box, we explore the channels through which the conflict are likely to impact the UK economy and real incomes in particular, using the channels through which NIESR's macroeconomic model, NiGEM, propagates the effects of the shock.

### Analysis

Figure A1 Channels by which war-related shocks impact UK GDP and consumer inflation



Source: NIESR

Firstly, sanctions and supply disruptions have increased global commodity prices. This can be considered as a steepening of the Phillips Curve, so that a given level of demand is more inflationary. The shock has increased import inflation which feeds into higher consumer prices (see Figure A1). Higher domestic inflation directly reduces real disposable incomes, consumption and therefore GDP. If the shock is permanent, this

1 Thanks to Jagjit Chadha, Rory Macqueen, Stephen Millard, Barry Naisbitt and Kemar Whyte for comments.

represents a rapid transition to a new lower equilibrium growth path for the UK, meaning permanently lower real incomes for UK households.

This inflationary shock happened for businesses first and for households with the April rise in the energy price cap, with a large chance of another rise in the price cap in October. Low-income households will suffer the brunt of this worsening squeeze in real incomes, as they spend a larger share of their household budgets on food and energy. Fiscal transfers are also being eroded in real terms. Even before the invasion, NIESR forecast a 30 per cent rise in destitution, bringing the total number of destitute households to about 1 million (NIESR Winter 2022 UK Economic Outlook). As discussed in our UK Economic Outlook, the onus is on the government to provide greater fiscal support under these circumstances. In response to higher consumer prices (and in combination with a pre-existing tight labour market), workers may press for higher nominal wages, which in turn increases pressure on unit labour costs and may increase inflation further, if businesses respond by raising prices. If not contained, this potentially destabilising wage-price spiral may lead to inflation expectations becoming self-fulfilling, making it more difficult for the MPC to bring inflation back to target.

Higher domestic inflation is also likely to lead to tighter monetary policy than would have been the case otherwise, which further acts to reduce consumption and GDP. In addition to greater levels of uncertainty, higher interest rates increase the user cost of capital via long-term interest rates, which dampens investment and further reduces GDP. Finally, weaker global demand, particularly from Europe weighs on UK export volumes. The greater dependence of Europe on Russian energy compared with the UK means Europe faces much larger negative consequences, with negative spillover consequences for the UK.

Elsewhere, and with little impact on household incomes, the UK government is likely to increase temporarily spending on defence and refugee resettlement costs which may provide a small short-term boost to government consumption. More significantly for most households, the Spring Statement contained announcements intended to reduce the impact of rising energy bills, though this temporary rise in transfers and small cut in indirect taxation are likely to prove insufficient and may have to be increased or repeated later in 2022 (Millard et al, 2022). A small increase in the population via migration from Ukraine may also provide support to the economy in the long run. Nevertheless, the positive contributions to GDP and household incomes are small, and their effects will be significantly outweighed by negative GDP effects on consumption, from the erosion of real disposable incomes and higher interest rates, lower investment due to greater uncertainty and higher interest rates, and lower volumes of exports.

## Conclusion

The war in Ukraine has further raised the prospects of stagflation and is likely to have a significant impact on the UK economy: in particular, worsening the squeeze on household incomes. Higher commodity prices and trade spillovers represent major channels through which the war will affect economic activity in the UK, and increased uncertainty weighing on confidence also has the potential to further reduce growth. Higher inflation, both directly as a result of higher commodity prices and indirectly through increased unit costs, will add to the squeeze on real household incomes. If rising inflation leads to significantly tighter monetary policy, there will be a further reduction in demand relative to our pre-war forecast, but if monetary policy is not tightened then inflation could be even higher and more persistent. There will need to be larger fiscal policy responses, as the only agent with the capacity to smooth the shock to national income without exacerbating it in the short-to-medium term is the government.

## References

- Liadze, I., Macchiarelli, C., Mortimer-Lee, P. & Sanchez-Juanino, P. (2022) 'The Economic Costs of the Russia-Ukraine Conflict'. NIESR Policy Paper 32, 2 March.
- Macqueen, R., Mortimer-Lee, P., Lenoel, C., Bhattacharjee, A., Chadha, J.S., Patel, U., Whyte, K., Mosley, M. & Pabst, A. (2022) 'Powering Down Not Levelling Up' NIESR UK Economic Outlook, Winter 2022.
- Millard, S., Pabst, A., MacQueen, R., Whyte, K., Patel, U. & Bhattacharjee, A. (2022) 'NIESR's Spring Statement Response 2022', 23 March: <https://www.niesr.ac.uk/publications/niesrs-spring-statement-response-2022>
- Patel, U. (2022) 'No respite for UK consumers and the Bank of England as inflation hits 7 per cent' NIESR CPI Tracker, 13 April.

have been reversed late last year, when it was becoming clear that much of the crisis was behind us. We have also called for better communication (Barwell, 2021, and Millard, 2022) and a reduction of the Bank of England's balance sheet (Allen et al, 2021, and Chadha, 2019).

But the problem facing the monetary authorities is being exacerbated by the government's fiscal policy. At the Spring Statement the Chancellor pressed ahead with fiscal tightening in the face of a 2 standard deviations negative shock to household incomes. This will directly exacerbate the hardships faced by those in the lower income deciles (see Chapter 2) and make it harder for the MPC to normalise policy and limit inflationary momentum. Furthermore, with government consumption fixed in nominal terms, consumer price rises will lead to significant cuts to public service provision, large falls in public sector real consumption wages (Civil Service Pay Remit guidance presently allows 2 per cent awards, with a further 1 per cent in limited cases), or both. Previous NIESR research (Chadha et al, 2021) has highlighted how the current fiscal framework does not incentivise the correct social outcomes and remains subject to short-term 'budgetarianism' and the whims of politicians. A more substantial fiscal event – weighing up the long-term sustainability questions with the need for short-term support – could lead to better outcomes for households this year but also faster growth in productivity in future, which would in turn help future governments respond to rising fiscal demands. More supportive fiscal policy in the short term would also have the effect of making the monetary authorities' dilemma less painful.

Private sector wages have begun to respond to rising prices, with median pay settlements rising from 2 per cent to above 3 per cent. There is evidence of larger rises in settlements in the upper quartile, suggesting that a minority of workers (those with skills particularly in demand) are having more success at insulating themselves from the rising cost of living. Given the tightness of the UK labour market – where recently for the first time there was a vacancy for every unemployed person – it is perhaps surprising that wage growth has not yet accelerated more quickly. Recent increases in pay have been pushed upwards by bonuses, rather than regular pay, but it will be important to observe whether these rises become consolidated into further rises in regular pay growth. April being one of the busiest months for wage settlements, any clear signs that regular pay is beginning to catch up with the rising cost of living ought to become evident soon.

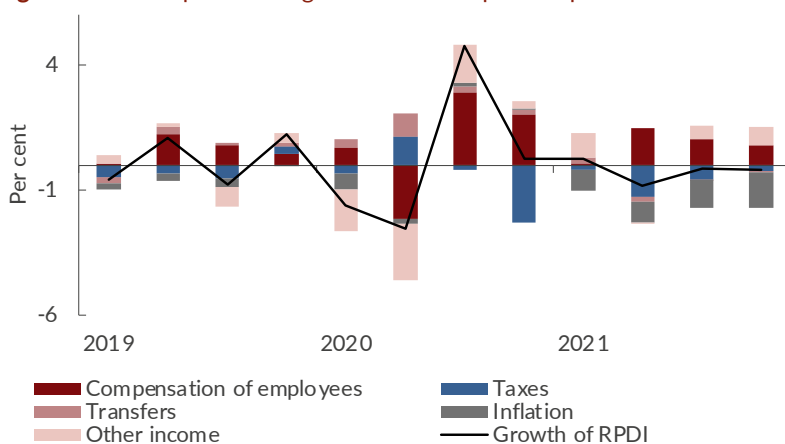
## Current economic conditions

### Demand and output

#### Consumption continues to recover...

Private consumption is estimated to have grown by 0.5 per cent in the fourth quarter of 2021, leaving consumption in 2021 6.0 per cent higher than in 2020. On a quarterly basis, however, it remains 2.1 per cent lower than its peak in the second quarter of 2019.

**Figure 1.1** Components of growth in real disposable personal income



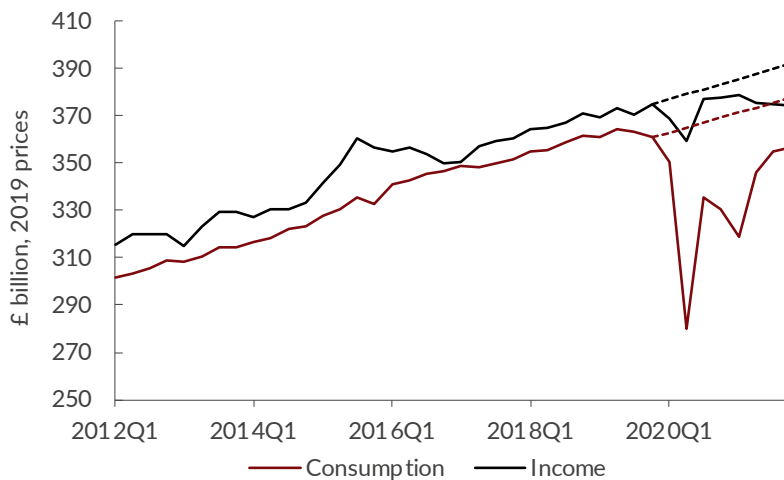
Source: ONS, NIESR calculations

#### ...but households are now facing a major squeeze on their real incomes

Real personal disposable income fell in the final three quarters of 2021 (Figure 1.1) as a result principally of higher taxes and inflation. The freezing of income tax allowances and the introduction of the new Health and Social Care

Levy at the beginning of April will act to push further down on real personal disposable incomes (see ‘Forecast’ on page 20), offset by the rise in National Insurance thresholds from July.

**Figure 1.2** Quarterly household consumption and income 2012-2021

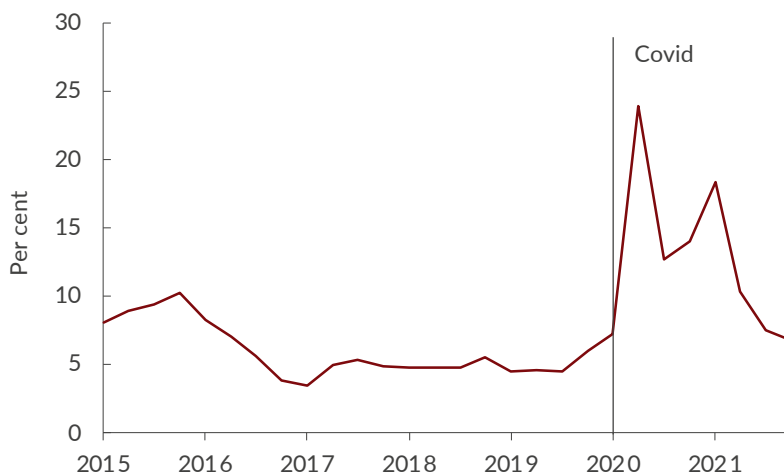


Source: NiGEM database, NIESR calculations

### High aggregate savings may help to support consumption...

In aggregate, the household sector should be able to smooth its consumption relative to the fall in real disposable income as a result of the high savings accumulated – whether voluntarily or due to the unavailability of goods and services – during the Covid-19 lockdowns. Compared with a counterfactual of incomes and consumption continuing to grow at their post-2012 average rates, Covid-19 may have led to around £200 billion or more of additional savings for households in aggregate, represented by the difference between the gap between consumption and income in Figure 1.2 relative to the gap between their trends.

**Figure 1.3** Savings rate



Source: ONS

Figure 1.3 shows the savings ratio rising to almost 24 per cent in the second quarter of 2020 as a result of the first lockdown. Since then it has fallen back below 7 per cent in the fourth quarter of 2021 and is likely to fall further in 2022. However, the squeeze on incomes is likely to affect particularly the poorest households, who spend a larger fraction of their income on food and fuel; these households were less able to build up savings during the lockdowns<sup>2</sup>, being less likely to have remained employed full-time, and are more likely to have spent through any savings

<sup>2</sup> See NIESR, UK Economic Outlook Spring 2021, pp12-13.

subsequently. We discuss further the distributional impact of the real income squeeze in Chapter 2 of this Outlook.

### ...but consumer confidence is low

Support for a weak consumption outlook came in the GfK Consumer Confidence Survey, which fell to -38 in April. This was its fifth consecutive monthly fall and confidence is now lower than it was in April 2020, when the economy was first 'locked down' in response to Covid-19. The forward-looking indices for personal financial situation and general economic situation both fell, to -26 and -55 respectively: both significantly worse than a year earlier. The YouGov Consumer Confidence Survey tells a similar story, its index falling to 103.9 in March 2022 compared to 108.5 a year earlier. The survey outlook for household finances over the next twelve months fell from 59.7 in February to 49.1 in March, having been at 102.3 in March 2021. House price inflation remains strong and, in February 2022, was 10.9 per cent, up from 10.2 per cent in January.

### Business investment grew sluggishly in 2021...

Business investment grew by 1 per cent in the fourth quarter of 2021, meaning that in 2021 it was 0.8 per cent higher than in 2020 and, in the fourth quarter, was 8.6 per cent lower than in the last pre-pandemic quarter at the end of 2019. In our previous Outlook, we were expecting robust growth in business investment in 2022, given healthy corporate balance sheets, the need to increase the use of capital in the face of a tight labour market, and the government's 'super-deduction' which lasts only until March 2023. However, given the uncertainty and supply disruptions brought about by the conflict in Ukraine, as well as the likely tightening of monetary policy and, so, credit conditions, it is likely that firms will cut back on their investment plans relative to before the war began.

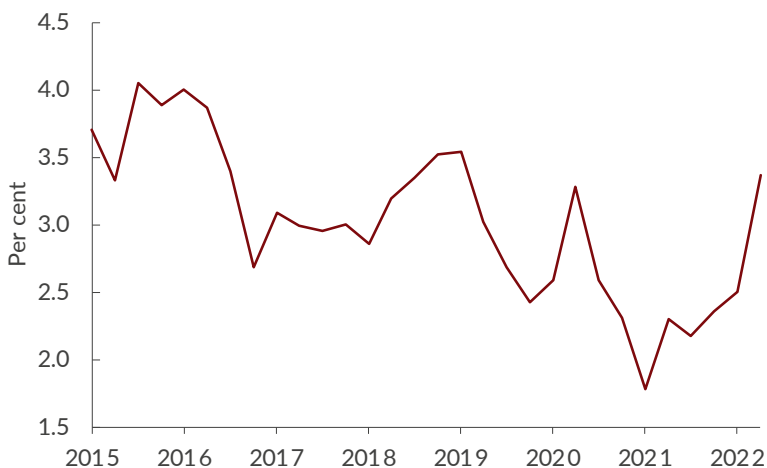
### ...and this continued in early 2022

Recent survey evidence supports this view. Almost three quarters (73 per cent) of firms in the British Chambers of Commerce Quarterly Economic Survey for the first quarter of 2022 reported no increase to investment in equipment or technology. The Omicron variant of Covid-19 has also had some effect: businesses taking part in the March 2022 Bank of England's Decision Maker Panel (DMP) Survey estimated that their investment in the first quarter would be 8 per cent lower than it otherwise would have been due to Covid-19. Overall, their near-term expectations for the impact of Covid-19 on investment worsened a little on the month.

### Uncertainty has only risen a little

The DMP Survey suggested that general uncertainty rose only modestly between February and March, despite the additional uncertainty caused by the Russia-Ukraine conflict. More specifically, 49 per cent of businesses viewed the overall level of uncertainty facing them as high or very high, up slightly from 47 per cent in February.

**Figure 1.4** Yields on UK BBB corporate bonds



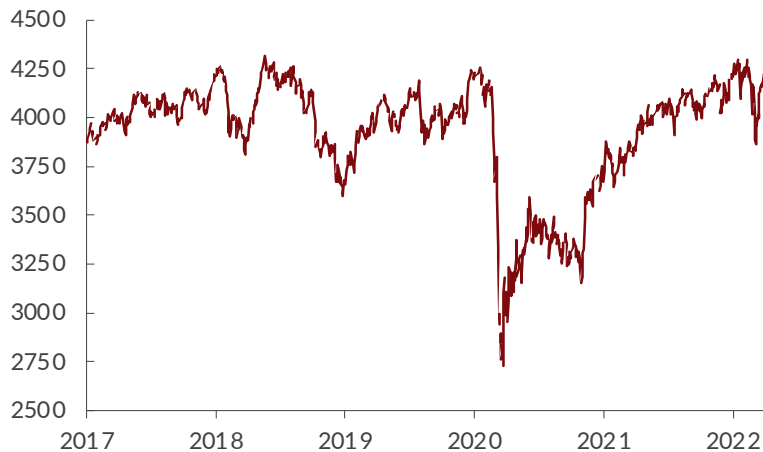
Source: ICE BofA BBB sterling corporate and collateralised index (yield to maturity)

### Cost of capital rising in line with the Bank of England policy rate

Ongoing monetary policy tightening (see 'Inflation and monetary policy', page 17) is likely to be contributing to a tightening in corporate financing conditions. UK corporate bond yields have risen since the start of 2021 (Figure

1.4). The FTSE All Share index fell by just under 10 per cent in response to the Russian invasion of Ukraine (Figure 1.5) but has since recovered. The longer-term context is that – leaving aside the large fall and rebound brought about by Covid-19 – UK equity prices and bond yields have been relatively flat for approximately five years, implying little change in the cost of capital for larger firms. As argued by Bhamra et al (forthcoming), the ‘consumer discretionary’ sector, which comprises those industries that tend to be most sensitive to economic cycles, saw a large downturn in performance during the Covid-19 crisis. As Russia’s invasion of Ukraine continues, we expect a similar drag on the FTSE All-Share from this sector as producers will be forced to withstand higher input costs and inflation, and consumers themselves will see a greater proportion of their real incomes eroded by expenditure on essentials like food and energy.

**Figure 1.5** FTSE All-share Index



Source: FTSE

### SME lending fell over the past year

Lending to small and medium-sized enterprises was most affected by Covid-19<sup>3</sup> and may also be by the recent rise in corporate bond and lending rates. The effective rate on new bank lending to SMEs published by the Bank of England rose from 2.5 per cent in December 2021 to 3.5 per cent in March 2022, in line with the rise in Bank Rate, while a net repayment of loans by SMEs meant that the total stock of lending to SMEs fell in March for the thirteenth consecutive month.

### The UK’s trade deficit narrowed towards the end of 2021...

The UK ran a trade deficit of 1.0 per cent of GDP in the fourth quarter of 2021, less than the 2.8 per cent deficit in the third quarter. Excluding movements in non-monetary gold, which are volatile, the UK trade deficit was 1.7 per cent of GDP in the fourth quarter. The narrowing was driven by a rise in export volumes of 6.9 per cent in the fourth quarter (including 9.6 per cent growth in the export of goods and 4.0 per cent in services), while import volumes rose by only 0.3 per cent. This, together with an increase in gross earnings on direct investment paid to the UK by the rest of the world, contributed to a reduction in the UK’s net borrowing position with the rest of the world from 5.1 per cent of GDP in the third quarter of 2021 to 1.3 per cent of GDP in the fourth quarter. Sterling has moved within a small band over the course of 2021 and 2022 (Figure 1.6). Looking forward we expect it to remain in this band.

<sup>3</sup> See NIESR, UK Economic Outlook Autumn 2021, p21.

**Figure 1.6** Sterling effective exchange rate index

Source: ONS

**...but looks to be widening again**

More recent monthly data for February 2022 suggests that the trade deficit, excluding precious metals, widened by £8.6 billion to £21.2 billion in the three months to February 2022, with the goods deficit widening to £54.4 billion and the services surplus widening to £33.2 billion. This is unlikely to reverse with growth expected to slow more in the Euro Area than in the United Kingdom as a result of the Russia-Ukraine conflict.

**Still hard to isolate the 'Brexit effect'**

Comparing the three months to February 2022 with the three months to November 2021, exports of goods to the EU increased by 3.3 per cent while those to the rest of the world increased by 4.9 per cent. Over the same period, imports of goods from the EU increased by 15.8 per cent and from the rest of the world by 6.5 per cent. Freeman et al. (2022) suggests that the implementation of Brexit had a large and persistent negative effect on relative UK imports from the EU while the negative effect on relative exports was smaller and only temporary. That said, data from the Business Insights Survey conducted by the ONS suggests that 26 per cent of businesses with 10 or more employees, and 29 per cent of those with fewer than 10 employees, that had exported in the last 12 months were unable to export or exported less in February 2022 compared with normal expectations. In contrast, 18 per cent of businesses with 10 or more employees, and 30 per cent of those with fewer than 10 employees, that had imported in the last 12 months reported that they were unable to import or imported less in the last month. At the same time uncertainty around the effects of Brexit has fallen. The share of firms in the Bank of England's DMP survey that reported Brexit in their top three sources of uncertainty was 22 per cent in March, down from 30 per cent in February. Longer-term changes in the UK's trading relationship with the European Union were discussed in Box A of our Winter UK Economic Outlook (Mortimer-Lee, 2022).

**GDP is now well above its pre-Covid level**

GDP is estimated to have grown by 1.3 per cent in the fourth quarter of 2021, resulting in annual GDP in 2021 being 7.4 per cent higher than in 2020. The latest measure of monthly GDP – that for February 2022 – was 1.5 per cent above its pre-Covid monthly level, i.e. in February 2020. Output in services and construction were both above their pre-Covid levels (by 2.1 per cent and 1.1 per cent respectively) while production output remained 1.9 per cent below. Consumer-facing services were 5.2 per cent below their pre-Covid level, while all other services were 4.0 per cent above.

**Service sector growth may be slowing...**

The IHS Markit/CIPS UK services PMI fell from 62.6 in March to 58.9 in April. Our April GDP Tracker estimated service sector activity growth of 0.8 per cent in the first quarter of 2022.

**...and production output is likely to fall later this year**

NIESR's April GDP Tracker estimated production sector growth of 0.9 per cent in the first quarter. Within production, the IHS Markit/CIPS PMI for manufacturing fell in March but rose in April and remains above 50, and our estimate for manufacturing is for growth of 1.4 per cent in the first quarter. The IHS Markit/CIPS construction PMI remained at 59.1 in March, unchanged from February. We expect construction output to have grown by 2.7 per cent in the first quarter of 2022.

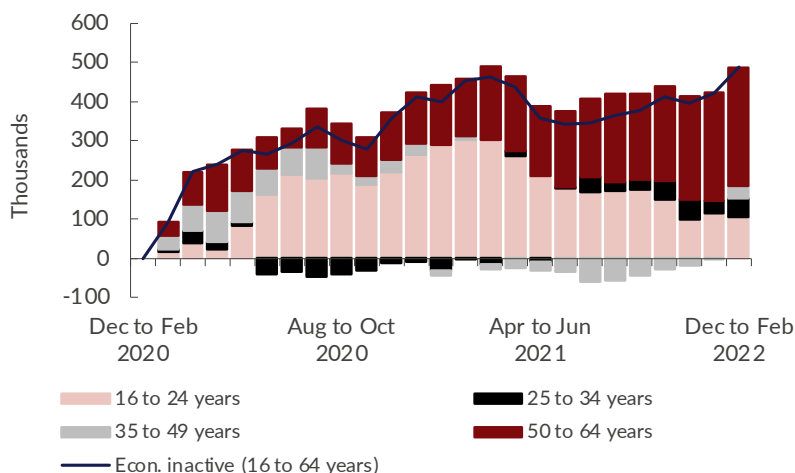


## Labour market and productivity

### Unemployment continues to decline

Unemployment has continued to fall, reaching pre-pandemic levels at 3.8 per cent in the three months to February 2022: the lowest since the three months to December 2019. Despite positive headline unemployment figures, there are still 588,000 fewer people in employment than before the pandemic (see Figure 1.7). The ONS' Labour Market Statistics suggests that the 487,000 rise in economic inactivity has been driven by older workers, and includes a notable rise in those absent from the labour market due to long-term health conditions.

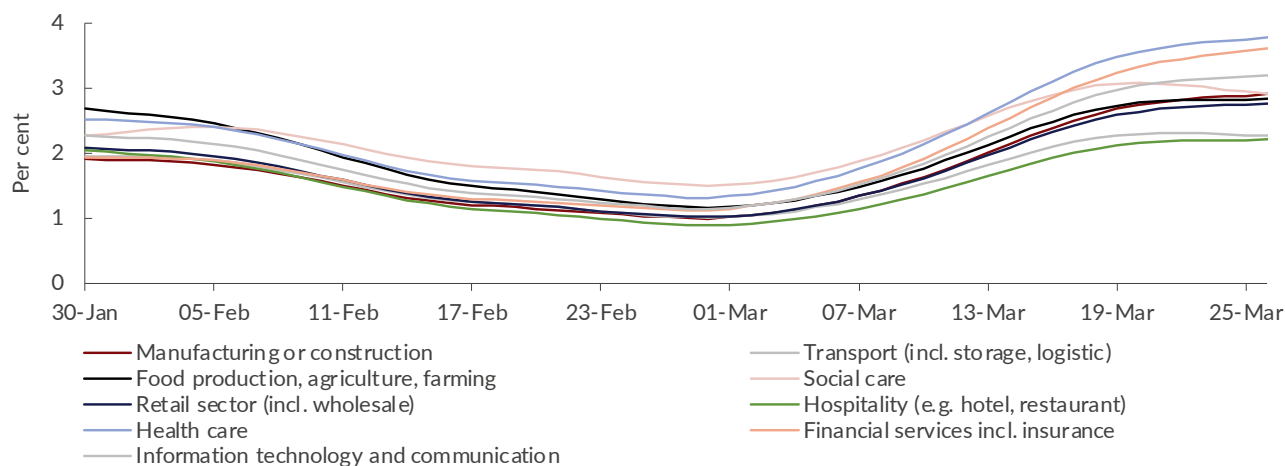
**Figure 1.7** Change in economic inactivity by age group since December 2019-February 2020



Source: ONS

Total hours worked in the three months to March 2022 were still 1.4 per cent lower than before the pandemic. A rise in full-time employees has been more than fully offset by declines in part-time employment (which has recovered in recent months) and self-employment (which has not): the latter may be connected to both the Coronavirus Job Retention Scheme and/or new IR35 regulations making self-employment less attractive for tax purposes. Waves of Covid-19 leading to more rounds of staff absences have been a constant risk to labour supply. This was the case in March in particular, especially in white-collar occupations, but also other service sectors, at a time of rising infections without free tests (Figure 1.8).

**Figure 1.8** Percentage of workers self-isolating due to Covid-19 by sector



Source: ONS

### ...but the participation crisis is worsening, driven by ‘missing’ older and part-time workers

Any recovery in the participation rate may be affected by the course of the pandemic but also the cost-of-living crisis. Higher energy and food prices might be expected to encourage some economically inactive individuals to return to work if pensions, benefits, and savings are not enough to meet basic needs. The ONS Over 50's Lifestyle Survey reports that some 40 per cent of those who left work or lost their job during the pandemic would consider returning to work in the future, but that people in their 50s were unsurprisingly more likely than those aged 60 years and over. There was considerable uncertainty as to when they would return to work, and 70 per cent preferred to return on a part-time basis, compared with just 9 per cent for returning full-time, which matches the greater fall in part-time numbers (see above). On the other hand, 60 per cent of people who lost their job or left work during the pandemic said that they are not considering returning to work at all.

### Vacancies rise to new records while availability falls

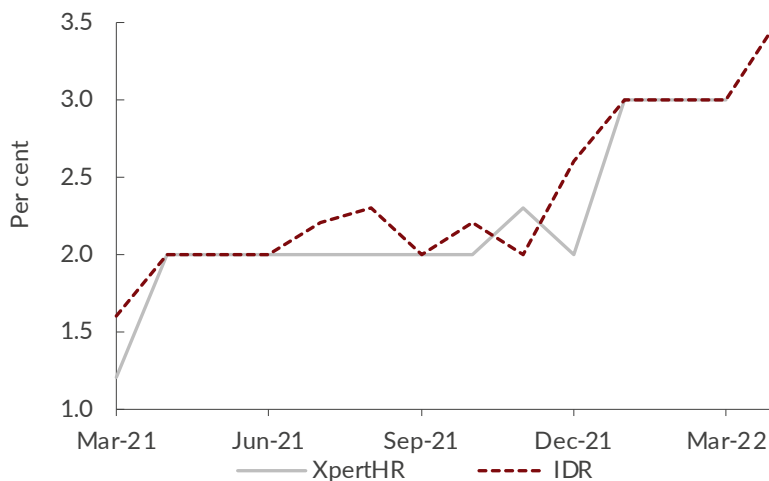
Job vacancies reached a record 1.29 million in January-March 2022. The largest increases were in the human health and social work sector, followed by professional, scientific, and technical activities. March's KPMG/REC jobs market report reported that the availability of workers fell at its fastest rate in four months while demand for permanent and temporary workers remains high. They also report that shortages of available workers may also be attributable to pandemic-related hesitancy and fewer workers from the European Union.

### Earnings growth has begun to accelerate a little but is flattered by bonuses

The annual growth rate in average weekly earnings including bonuses in the three months to February was 5.4 per cent. There are some mild base effects because of the winter lockdown at the start of 2021 when there were some 4.5 million people on furlough. In real terms, total pay in the three months to February 2022 grew by 0.4 per cent thanks to strong bonuses, however regular pay (excluding bonuses) declined by 1 per cent. The last time regular pay fell by 1 per cent or more on an annual basis was in May to July 2014, at the end of the post-Global Financial Crisis period of falling real wages.

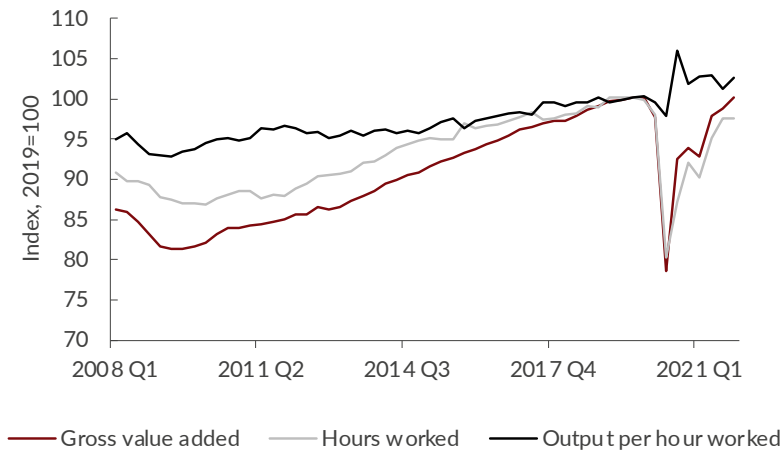
Annual private sector nominal pay growth during the same period grew by 6.2 per cent, a rate last seen in the first quarter of 2007, while annual public sector pay growth was 1.9 per cent. Pay awards continue to be heavily skewed towards the private sector: in particular, white-collar occupations and individuals in high earnings professions. Income Data Research (2022) suggests that, in the three months to April, the median pay settlement was 3.5 per cent (see Figure 1.9).

**Figure 1.9** Median pay settlements (three-month average)



Source: XpertHR, IDR

In 2021, output per hour worked was 1 per cent higher than in 2020 and 2.4 per cent higher than in 2019 (Figure 1.10), some of which is likely to be due to the compositional effect of low-productivity sectors being hardest hit by the Covid-19 shock. Productivity continues to be hampered by the lack of investment, including in research and development, by businesses. Rising costs of production for firms may also deter employers from investing in productivity-enhancing training. The government's 'Help to Grow' programme, which was set up in August 2021, aimed to boost productivity among small and medium sized businesses, but had only around 2,500 businesses enrolled by February 2022, well below the final target of 30,000. Slowing GDP growth in 2022 is likely to be accompanied by slower growth in labour inputs, however, which would mute the fall in labour productivity growth.

**Figure 1.10** Output, hours and output per hour

Source: ONS

## Fiscal policy

### The government deficit fell to around 6 per cent of GDP last year...

Government borrowing surprised on the downside for much of the 2021-22 fiscal year and is reported to have totalled around £152 billion, or 6.4 per cent of GDP, slightly higher than the 5.4 per cent expected by the Office for Budget Responsibility (OBR) at the Spring Statement but below the 7.9 per cent forecast at the 2021 October Budget. This represents a record decline from the 2020-21 deficit of 14.8 per cent, but is still amplified by the Coronavirus Job Retention Scheme, which ended mid-way through the last financial year. Public sector net debt was 96.2 per cent of GDP in 2021-22, or 83.1 per cent excluding the Bank of England's quantitative easing and Term Funding Scheme activities.

### ...and the Chancellor had good news at March's Spring Statement

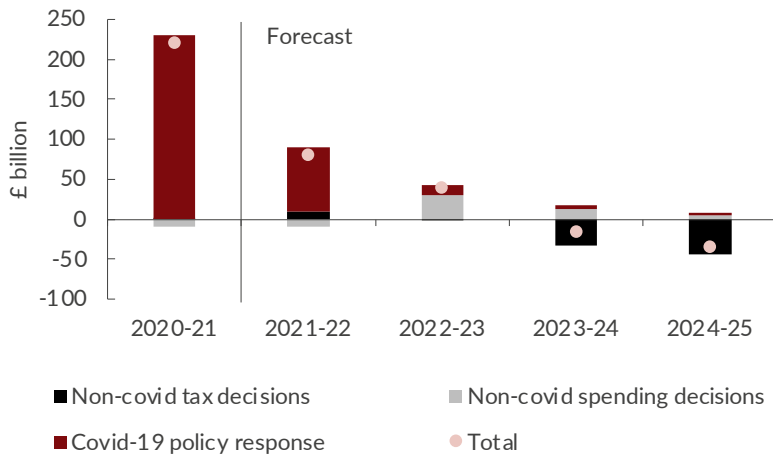
At the Spring Statement on 23rd March the government 'received' a net fiscal windfall, principally as a result of faster rising nominal earnings and prices in the context of a previously-announced decision to freeze income tax thresholds from April rather than raising them in line with inflation. This temporary non-discretionary improvement in the fiscal position was estimated by the OBR at £15 billion ( $\frac{1}{2}$  per cent of GDP) in 2024-25, consisting of £37 billion higher receipts and £23 billion more spending, largely resulting from higher inflation forecasts. The net debt position was also improved by a rise in forecasts for nominal GDP.

### Despite this, fiscal policy has only responded minimally to the inflationary shock...

Responding to the anticipated shock to real incomes, discretionary support for household energy bills was announced for 2022-23: effectively £9 billion of rebates and loans to households, most of which is to be repaid over five years from 2023-24 onwards. There was also a rise in the threshold for National Insurance contributions, reducing average tax rates from July onwards, and a cut to the basic rate of income tax from April 2024. Acting to offset this, the effective tax rate on student loans taken out by new students will rise over their working lives as a result of reforms announced to higher education funding.

### ...and will be tighter over the remainder of this parliament as a result of Covid-19

The net result of discretionary policies was a small loosening relative to the October 2021 forecast, which still leaves fiscal policy tightening rapidly (see 'Forecast' on page 20). The fiscal expansion during the Covid-19 period is set to be followed by a retrenchment: a policy decision not to smooth the impact of the new set of shocks on households by allowing the debt and deficit to naturally return to their downward trajectories at a later date. Figure 1.11 illustrates that, since the March 2020 Budget (the final fiscal event before the majority of the pandemic-related measures were announced), the government is now planning for the fiscal loosening to be followed by tighter discretionary fiscal policy in the coming years than had been planned before the pandemic.

**Figure 1.11** Cumulative discretionary fiscal policy changes since March 2020 Budget

Source: OBR, NIESR calculations

### The Spring Statement should have been more supportive

At the time of the Spring Statement NIESR said that economic headwinds were likely to eat into fiscal headroom and that there will be severe strain on public spending budgets, which were set for three years in nominal terms at the 2021 Autumn Budget. We felt that the new Health and Social Care Levy also placed significant pressure on households at a time of squeezed living standards and called for more direct support for household budgets. Given the improvement in the fiscal position ahead of the Spring Statement, we hoped that fiscal policy would loosen to cushion households – particularly poorer households – against the real income falls, but this did not happen. This failure of fiscal policy to support the right social outcome again demonstrated the need for a rethink of the fiscal framework, as suggested in NIESR Occasional Paper LXI on ‘Designing a New Fiscal Framework’ (Chadha et al, 2021).

### Debt interest is higher in the short-term due to inflation-linked gilts

Previous Outlooks and NIESR research have highlighted the vulnerability of the UK’s debt financing to rises in short-term interest rates (see ‘Inflation and monetary policy’), but also that, when considering the fiscal consequences of higher interest rates or inflation, the reasons are as important as the rises themselves. For much of the past year, higher than expected nominal GDP resulted in greater tax income and a larger denominator in the debt-to-GDP ratio, despite rising interest rates. With growth slowing and inflation continuing to rise, the OBR now forecast a rise in debt interest payments to £83 billion in 2022-23, principally due to the rise in retail price index inflation, to which around a quarter of UK gilts are linked, but also a higher forecast path for Bank Rate and the erosion of the ‘net interest margin’ on the Bank of England’s Asset Purchase Facility (QE). The yield on the benchmark ten-year gilt has risen by around 50 basis points since February, from 1.4 per cent to 1.9 per cent.

## Inflation and monetary policy

### Surging inflation shows no sign of slowing

The latest ONS estimates record that consumer prices in the UK rose by 7.0 per cent in the year to March 2022 (Figure 1.12), the highest annual rate of consumer price index (CPI) inflation recorded in the UK since March 1992. This surge in inflation occurred across most types of consumer expenditure to different degrees, with the largest contributions from transport and restaurants and hotels, which together made up almost 0.5 percentage points of the headline number. Monthly inflation between March and February 2022 was very high at 1.1 per cent. Recent NIESR analysis<sup>4</sup> indicates that if it continued at this rate, annual inflation would reach 14 per cent by February 2023.

### Goods inflation remains higher than services inflation while core inflation is rising

The rate of goods price inflation rose to 9.4 per cent in March from 8.3 per cent in February, while services price inflation rose to 4.0 per cent in March from 3.5 per cent in February. Core CPI inflation (i.e. CPI inflation excluding energy, food, alcohol and tobacco) rose to 5.7 per cent from 5.2 per cent in February.

4 Dixon, H. ‘Surging Inflation Shows No Signs of Slowing’, NIESR blog, 13.

**Figure 1.12** Consumer price index inflation (annual per cent)

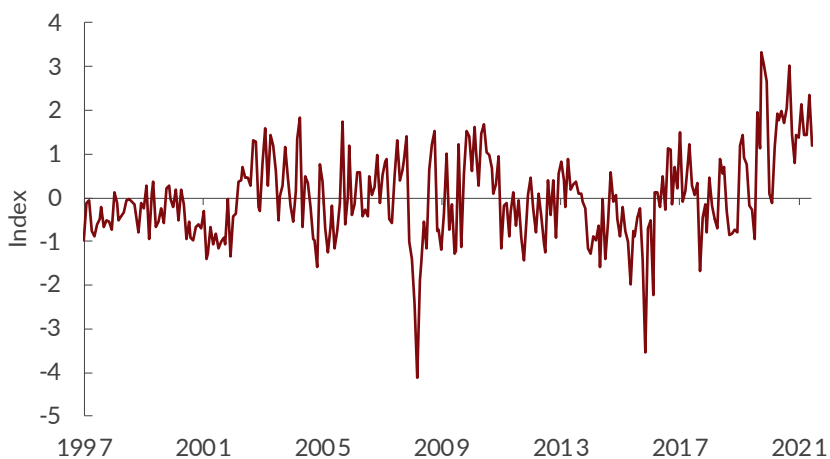
Source: ONS

**Input prices have also surged**

The headline rate of producer input price inflation was 19.2 per cent in the year to March 2022, up from 15.1 per cent in February. Perhaps unsurprisingly, crude oil provided the largest upward contribution to the annual rate of input price inflation.

**Supply chain disruptions have been a problem over the past year...**

Large rises in the prices of traded goods and services have been the main factor underlying the sharp increases in both input and consumer goods price inflation in the UK. Strong global demand for particular goods and disruption to supply have created bottlenecks in global supply chains (Figure 1.13) which have put upward pressure on prices globally. Although supply chain pressure as measured by the New York Fed's index fell slightly in February (see Benigno, 2022 for details of its construction), it remained elevated before the Russian invasion of Ukraine.

**Figure 1.13** UK supply chain pressure index

Source: Federal Reserve Bank of New York

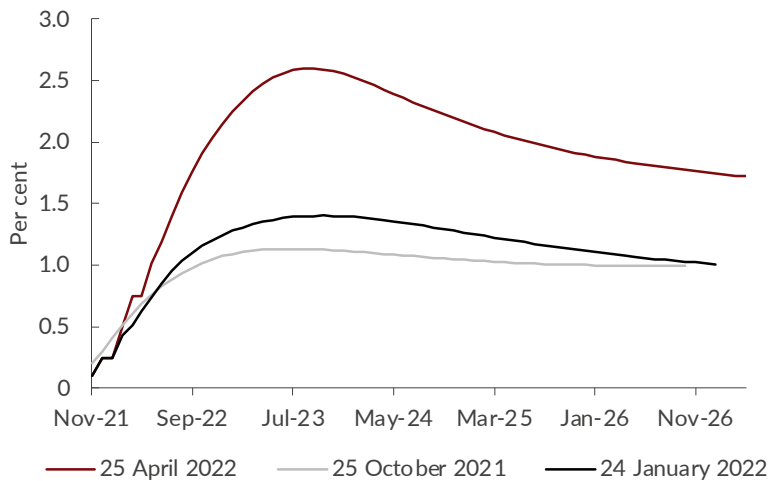
**...and the conflict in Ukraine will only have exacerbated this**

Global inflationary pressures are likely to strengthen considerably over the coming months. In particular, Russia and Ukraine account for roughly a quarter of the world's exports of wheat; Russia produces 20 per cent of the world's fertiliser and ingredients to make it elsewhere (specifically, urea, ammonia, and potash); about 50 per cent of the world's semiconductor-grade neon, critical for the lasers used to make microchips and smart phones, comes from two Ukrainian companies; Russia is a significant producer of gold, nickel, palladium, copper and aluminium and a major supplier of oil, coal and natural gas. Brexit is also likely to continue to contribute to supply chain disruptions as the UK continues to suffer from increased trading costs with the European Union, as well as fewer workers.<sup>5</sup>

**Monetary policy has continued to tighten**

At its meeting on 5th May 2022, the MPC increased the Bank of England's policy rate by 0.25 percentage points to 1 per cent, marking the fourth consecutive rate hike since late 2021. With CPI inflation expected to remain above the target of 2 per cent over the next two years, we can expect to see further tightening. Financial markets currently expect a further three or four rate increases this year, with interest rates reaching 2 per cent by January 2023 and 2.5 per cent by May 2023. This is one percentage point higher than the peak in interest rates that was expected at the time of our Autumn Outlook (see Figure

**Figure 1.14** Market expectations of Bank Rate on 25th April and at closure date of previous two forecasts



Source: Bank of England

**The beginning of quantitative tightening**

In addition to interest rate rises, 2022 is seeing the start of 'quantitative tightening' (QT). The MPC has announced that the Bank of England will no longer reinvest the proceeds obtained from maturing government bonds, has begun the process of reducing its holdings of corporate bonds, and is preparing the process of active gilt sales to take place some time after August 2022. Whether QT will have much, if any, effect on demand or inflation is highly uncertain (see Lenoël, 2021); MPC member Silvana Tenreyro, in the 2022 Dow Lecture at NIESR (Tenreyro, 2022), suggested that the effect is likely to be small.

**Monetary policymakers face their toughest policy dilemma since Bank independence**

The MPC has no control over global energy and commodity prices but is concerned to ensure that, when the current extreme price pressures pass, inflation returns to its 2 per cent target. Against the need to control inflation expectations, the MPC must also contend with the risk of amplifying the impact of the squeeze on incomes. This leaves the Committee with probably the toughest policy dilemma it has had to face since it was established 25 years ago (Chadha, 2022), a dilemma not helped by the lack of support for households coming from fiscal policy.

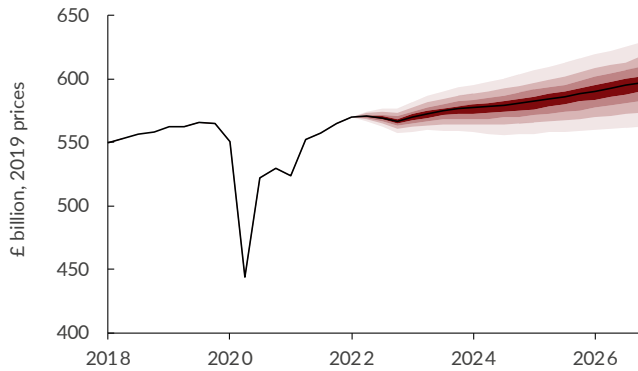
5 See also: House of Commons Treasury Committee, 'Defeating Putin: the development, implementation and impact of economic sanctions on Russia', Twelfth Report of Session 2021-22.

## Forecast

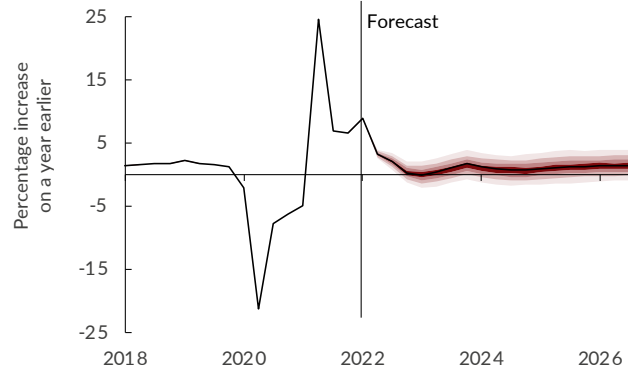
### GDP

The terms of trade shock resulting from higher energy prices would be expected to lead to a fall in output and this is reflected in our forecast. Our central case forecast sees GDP grow by 3.5 per cent in 2022, followed by 0.8 per cent in 2023 and 0.9 per cent in 2024 (Figures 1.15 and 1.16). For 2022 this represents a downgrade of 1.3 percentage points since our Winter Economic Outlook, largely reflecting the rise in energy prices coming from the war in Ukraine (see Box A).

**Figure 1.15** GDP

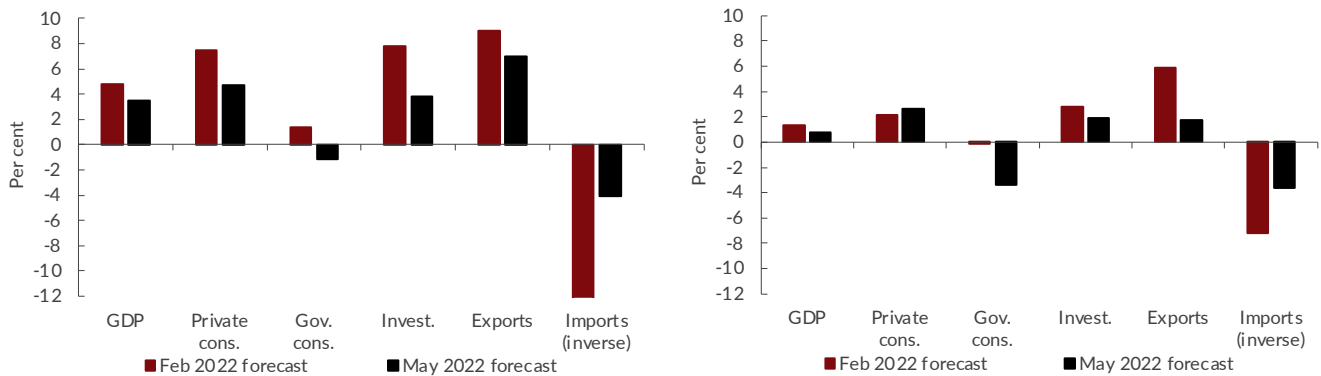


**Figure 1.16** GDP growth



Source: NiGEM database, NIESR forecast, NiGEM stochastic simulation. See page 5 for more details of fan-charts.

**Figure 1.17** Components of GDP in 2022 (left) and 2023 (right)



Source: NiGEM database, NIESR forecast

In all components of private sector expenditure, Covid-19 and the slow start to 2021 flatter year-on-year growth in 2022. Activity is expected to decline in the third and fourth quarters of the year – a ‘technical’, but nonetheless relatively shallow, recession – with high and persistent inflation, rising interest rates and tightening fiscal policy combining to restrain output growth. Box B on page 21 discusses the risks of a much deeper recession in which GDP falls year-on-year.

Tax and spending policies are assumed to evolve broadly in line with the government’s policy as set out at the Spring Statement, with the deficit (Figure 1.18) forecast to fall from 5.8 per cent in 2021-22 to 2.7 per cent in 2022-23 and 2.1 per cent in 2023-24. Higher inflation, combined with unchanged nominal public spending plans, leads to a forecast fall in government consumption of 1 per cent in 2022 and 3 per cent in 2023. Over the forecast period this constitutes a series of fiscal deficits not only smaller than we forecast a year ago but also than we forecast before the pandemic began. The public sector net debt to GDP ratio is currently around 16 percentage points higher than in our Autumn 2019 forecast, but this gap is forecast to close to around 1.5 percentage points by the end of the 2026-7 fiscal year.

## Box B: How likely are we to see a major recession in 2022?

By Peter Dixon<sup>1</sup>

### Introduction

Until relatively recently it seemed unlikely that the UK economy would fall into another recession – by which we mean in this case a year-on-year fall in GDP – as the country continued its post-Covid recovery.<sup>2</sup> Since our February 2022 forecast, however, a number of factors have conspired to cast clouds over the economic outlook. In addition to the inflation surge, resulting from rising energy costs and supply constraints in the wake of the pandemic, the economy now faces an additional uncertainty shock triggered by the Russian invasion of Ukraine.

A combination of war and energy price shocks is reminiscent of the problems which hit the UK economy in the 1970s and will clearly increase the strength of economic headwinds, particularly since the UK is already dealing with the risk to growth posed by Brexit. But whilst the risks to the outlook have risen, a recession is by no means inevitable. Here we look back at previous recessionary episodes to identify the factors which impacted on the economy and trace the linkages which brought about a contraction in output. We also look at the information content of the latest data releases to assess what they tell us about the prospect of recession in the context of qualitative choice models. For a more detailed and longer run perspective, NIESR's UK Business Cycle Dating Committee provides a fuller narrative and history of expansions and contractions. (see Chadha, Lennard and Thomas, 2022).

### Recessions past and present

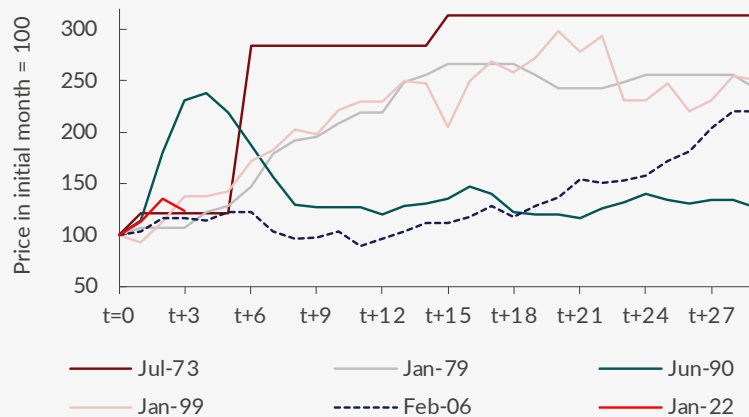
It is particularly interesting to compare the current economic picture with that prevailing in 1973 when the UK experienced its first major post-World War II recession (apart from the one quarter of negative annual GDP growth experienced in the second quarter of 1958, see Blackaby, 1975). Then, as now, the economy was coming off a period of extremely rapid growth – compare the Barber boom with today's post-pandemic recovery. In both cases the economy was having to adjust to new institutional arrangements: in 1973 a breakdown in the Bretton Woods system and the transition to a new world of floating exchange rates, today the new post-Brexit environment with all the attendant consequences for trade flows. Both periods were also characterised by regional military conflict which had an impact on global energy prices. However, whereas the war in Ukraine produced a 20 per cent rise in crude oil prices in March 2022, the Yom Kippur conflict between Egypt and Israel in October 1973 generated a near-tripling, from \$3.56 in July 1973 to \$10.11 by early-1974 (Figure B1).

Tempting as it is to draw parallels between 1973 and today, there are also significant differences. First, the economy uses oil far more intensively today which will reduce the impact of any given oil price hike: each pound of GDP (measured in constant prices) today consumes only a quarter as much oil as in 1973. Recent empirical evidence (Kirby and Meaning, 2015 and Millard and Shakir, 2013) suggests that a sustained 10 per cent rise in oil prices will only shave between 0.1 per cent and 0.2 per cent from GDP. The starting point for inflation was also higher in 1973, with retail price index inflation already at 9 per cent before the oil price hike kicked in. The resultant inflation surge was amplified by a very different wage bargaining process in which unions played a key role. In the two years prior to the 1973 oil shock, real average earnings increased by 7.5 per cent whereas they have risen by only 2.7 per cent over the past two years. Whilst unions were instrumental in pushing nominal wage inflation into double digits by end-1974, their power has since been much diminished. In 1973 trade union density stood at 46 per cent; latest data suggest that by 2020 that figure had roughly halved to 23.7 per cent (Figure B2). The prospect of a 1970s-style wage-price spiral reinforced by rising costs and union power thus seem remote. Further, we now have an independent central bank setting monetary policy to achieve an inflation target. This has helped anchor inflation expectations, again making a wage-price spiral much less likely.

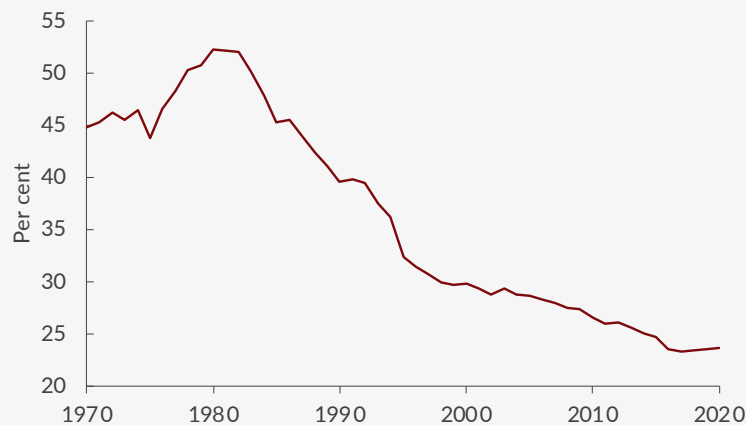
<sup>1</sup> Visitor, NIESR.

<sup>2</sup> Note that the commonly ascribed definition of a recession, viz. two consecutive quarters of negative quarterly GDP growth is not necessarily helpful, and here we focus on a more serious downturn in the economy. Generally speaking a recession is a sustained fall or contraction in economic activity.



**Figure B1** Selected oil price shocks

Source: Federal Reserve Bank of St. Louis, Energy Information Administration

**Figure B2** The power of unions continues to decline

Source: OECD, ONS

### Spotting the turning point

Looking back over history is an interesting exercise but whilst it provides context it is often not useful in determining how economic patterns are likely to evolve in future. Forecasting turning points in the economic cycle is as much art as science and a considerable amount of research has been devoted to finding optimal indicators. Lenoël and Young (2020) conducted a survey to identify real-time turning point indicators published by international statistical and economic institutions. They found a considerable range of techniques in use across different organisations due in part to variations in the range of available data. Increasingly, the use of high frequency real time data gives an insight into how the economy is evolving and is a useful addition to the data armoury, although there is insufficient data to assess how well it might have performed ahead of past recession cycles. That said, as Chadha and Nolan (2002) show, the business cycle is a medium frequency innovation and thus we might expect that high frequency data may not have strong information content for business cycles.

Our analysis here focuses on the five major recessions since the 1970s. Evidence suggests that the UK's recent recessions were not foreseen a year in advance. Using data from HM Treasury's compendium of forecasters' expectations, which extends back to 1987, the median forecast made in September 1990, 2008 and 2019 failed to anticipate the declines in GDP that occurred in 1991, 2009 and 2020. There are sometimes good

reasons for that: the collapse of Lehman Brothers in 2008 and its attendant consequences for the global financial system was a random shock to which forecasters quickly adjusted. The same is true of the economic reaction to the pandemic when activity collapsed in spring 2020 due to Covid-19 and measures put in place to limit its spread. On other occasions, however, the failure to anticipate recession appears to be a more egregious forecast error – notably the recession of 1990-91.

Lenoël and Young assess some of the various indicators used to measure cyclical turning points, pointing out that until 1997 the ONS published a leading indicator for the UK which was assessed by Artis et al. (1995) as containing “important predictive information.” However, the statistical authorities ceased publishing them due to a number of methodological concerns, not the least of which was “an indicator that gave an early signal ahead of one recession may not work so well ahead of another recession if the nature of the recession is different”.

One of the methods that received less attention in the Lenoël and Young paper was the use of qualitative choice models in assessing cyclical turning points. This has found considerable traction in the literature which uses financial indicators to predict the cycle (Estrella and Mishkin, 1998). Such techniques are used to model outcomes where the dependent variable takes a binary value depending on the contingent state. In our case the dependent variable is the annual rate of real GDP growth which takes the value 1 when it falls into negative territory and 0 otherwise: in other words when quarterly GDP is less than it was in the quarter a year earlier.<sup>3</sup> In applying the analysis to the UK, the object of the exercise is to find indicators which have decent predictive power six months ahead. We chose as regressors the CBI’s business optimism index and the OECD leading indicator for the UK, which is in turn comprised of six variables (RPI, passenger car registrations, consumer confidence, 3-month LIBOR rate, manufacturing production expectations and an index of equity prices). To add an additional financial market indicator, we also include the slope of the gilt curve (specifically, two-year minus ten-year yields).<sup>4</sup>

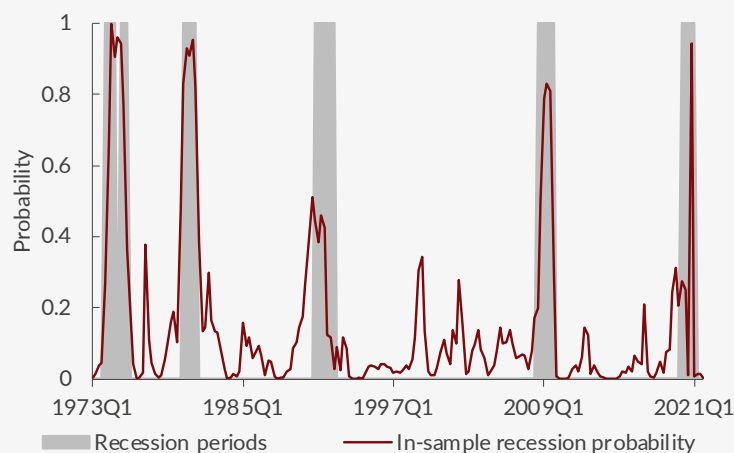
Based on data from 1972 we have 198 quarters of data and in 30 quarters annual GDP growth was negative. A simple probit model<sup>5</sup> was used to assess the predictive power of the three explanatory variables to give an assessment of recession probabilities six months ahead. The model diagnostics suggest that it fits the data very well, demonstrated by Figure B3, which indicates that it captures the likelihood that GDP growth is negative with a probability of at least 80 per cent (the one exception was the recession of 1990-91 when most forecasters also missed it). Plugging in the latest observations suggests that the probability that annual GDP growth will turn negative this year is negligibly small. This is not surprising given the momentum behind activity in recent months. Given the nowcast for quarterly GDP growth of 1.0 per cent in the first quarter of 2022 suggested by our April 2022 GDP tracker, output would have to decline by 2.3 per cent over the next two quarters for the annual growth rate to turn negative.

In contrast to conventional forecasting techniques, we do not attempt to quantify the rate of GDP growth. But the probabilistic approach outlined here gives a sense of the risks surrounding the outlook and how much the economy would have to slow in order to produce a year-on-year fall in GDP. Since the analysis is based on the information content in current data, it will be subject to change in future. However at the time of writing – and these may prove to be famous last words – the likelihood of a sustained fall or contraction in GDP (ie, a year-on-year fall) in 2022 appears remote. That said, there may well be a small contraction of GDP (and two consecutive quarters of negative quarterly growth) in the second half of 2022.

3 Again, we could define a recession as two consecutive quarters of negative quarter-on-quarter growth. In that case, our dependent variable would need to reflect the quarterly growth profile. However, the explanatory power of the indicators is very limited in this regard.

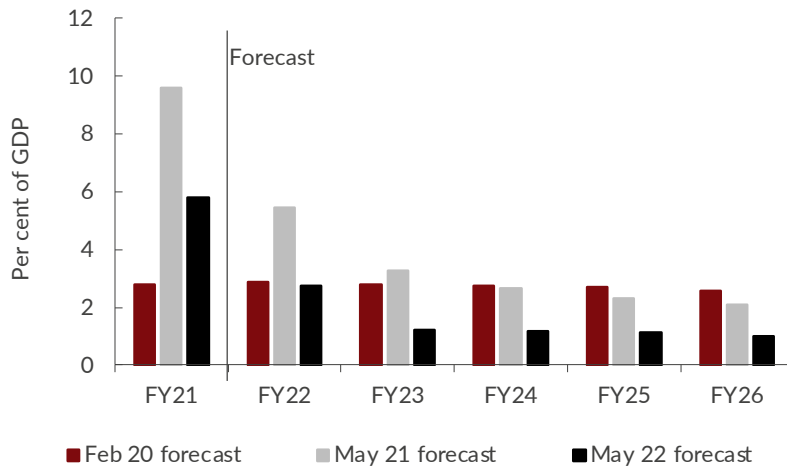
4 We consider this to be a first pass and so the results should be viewed as preliminary. In future work, we plan to add the Bank rate and oil prices (and possibly other variables) to the regression to see if these variables make a difference to the predictive power of the regression.

5 A probit model is a type of statistical model in which the dependent variable can only take two values; the probability of it taking one of those two values is regressed on the independent variables.

**Figure B3** Model estimate of UK recession probabilities

## References

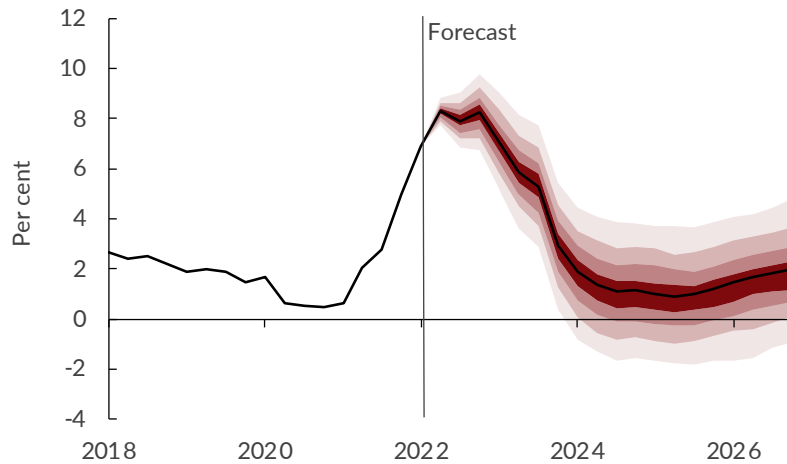
- Artis, M. J., R. Bladen-Hovell, D. Osborn, G. Smith, and W. Zhang (1995) 'Turning point prediction for the UK using CSO leading indicators', *Oxford Economic Papers*, Vol. 66, pages 397-417.
- Blackaby, F. T. (ed). (1978) *British Economic Policy, 1960–74*. NIESR monograph. Cambridge, United Kingdom: Cambridge University Press.
- Chadha, J. S., J. Lennard and R. Thomas, (2022) 'Dating Business Cycles in the United Kingdom, 1700–2010', forthcoming ESCoE/NIESR Discussion Paper.
- Chadha J. S. and C. Nolan (2002) 'A Long View of the UK Business Cycle', *National Institute Economic Review*, Vol. 182, pages 72-89.
- Estrella, A. and F. S. Mishkin (1998) 'Predicting U.S. recessions: Financial variables as leading indicators', *The Review of Economics and Statistics*, Vol. 80, pages 45–61.
- Kirby, S. and Meaning, J. (2015) 'Oil Prices and Economic Activity', *National Institute Economic Review*, February 2015.
- Lenoël, C. and Young, G. (2020) 'Real-time turning point indicators: Review of current international practices', *ESCoE Discussion Paper No. 2020-05*.
- Liu, W. and Moench, E. (2014) 'What Predicts U.S. Recessions?', *Federal Reserve Bank of New York Staff Reports*, No. 691.
- Millard, S. and Shakir, T. (2013) 'Oil shocks and the UK economy: the changing nature of shocks and impact over time', *Bank of England Working Paper No. 476*.

**Figure 1.18** Public sector net borrowing

Source: NiGEM database, NIESR forecast

## Inflation and monetary policy

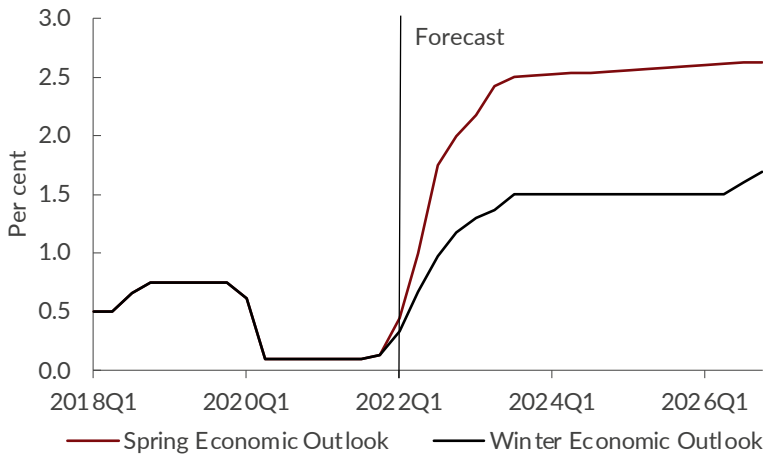
In our central case forecast consumer price (CPI) inflation peaks at 8.3 per cent in the fourth quarter of 2022, falling to 2.9 per cent by the end of 2023 (see Figure 1.19).

**Figure 1.19** CPI fan chart

Source: NiGEM database, NIESR forecast, NiGEM stochastic simulation. See page 5 for more details of fan-charts.

Compared with our previous forecast this constitutes a materially higher path for inflation over the next two years, reflecting the effects of the war in Ukraine, which is expected to drive international energy and food prices higher for a longer period. After this shock dissipates, weak demand and higher interest rates force inflation below target for a period.

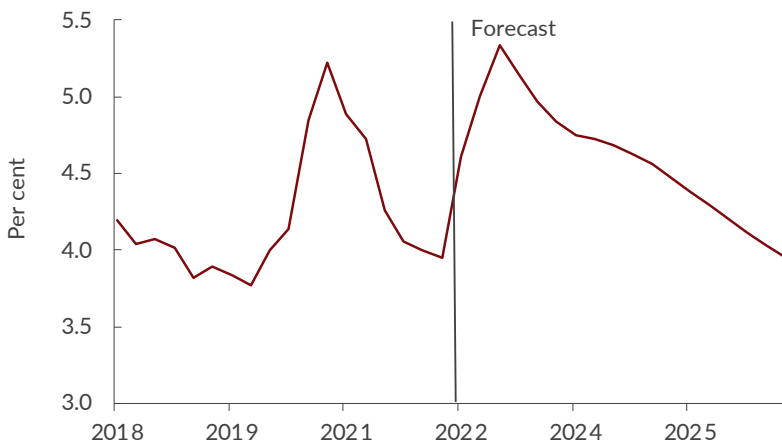
The Bank of England's policy interest rate is forecast to rise to 2 per cent in the final quarter of 2022 and to rise more slowly thereafter, remaining close to 2.5 per cent for the majority of the forecast period (Figure 1.20). Given the rise in inflation, this remains well below the path that would be implied by a standard Taylor rule.

**Figure 1.20** Bank rate

Source: NiGEM database, NIESR forecast

## Household incomes

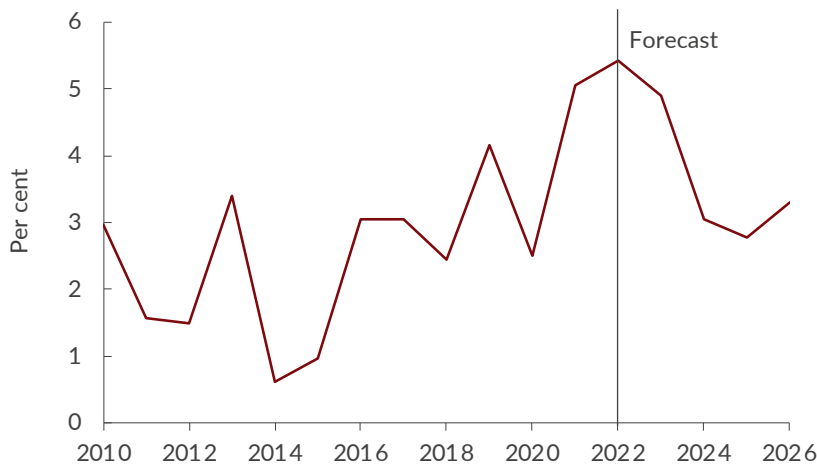
We forecast unemployment to average 4.4 per cent in 2022, rising slightly to average 5 per cent in 2023, as growth slows and interest rates rise (Figure 1.21), returning gradually to around 4 per cent by the end of the forecast period.

**Figure 1.21** Unemployment

Source: NiGEM database, NIESR forecast

Average earnings growth is forecast to average 5.4 per cent in 2022. This includes a small base effect from the furlough scheme, which continued until September 2021 and saw many recipients' earnings reduced by 20 per cent. This is followed by growth of 4.9 per cent in 2023 and around 3 per cent thereafter (Figure 1.22) as inflation returns to target.

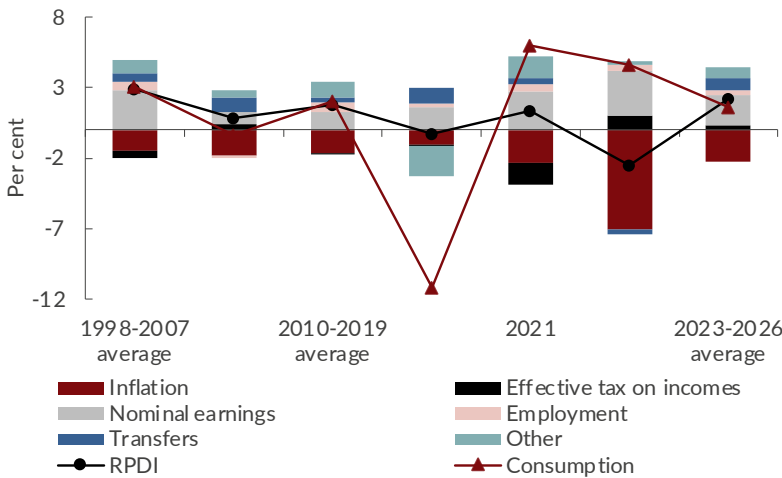
**Figure 1.22** Average earnings growth



Source: NiGEM database, NIESR forecast

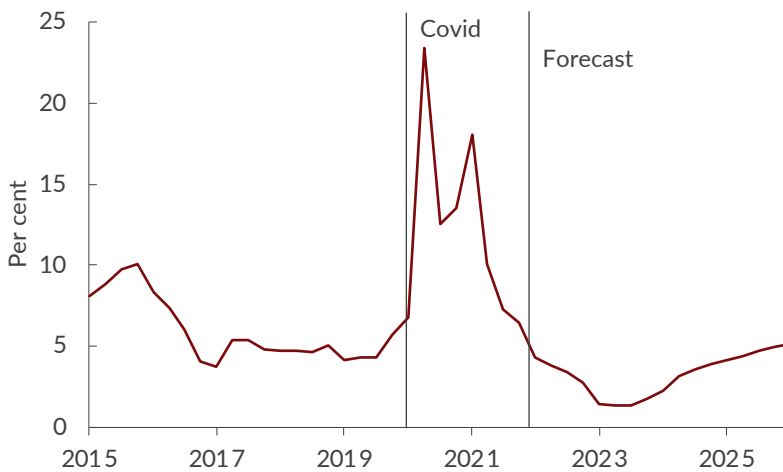
As expected from a terms-of-trade shock, real household disposable incomes are forecast to fall by 2.4 per cent in 2022 (Figure 1.23), as even the elevated rate of earnings growth fails to keep up with inflation. Real incomes return to growth in 2023, though only marginally, with growth sustainably above zero not returning until inflation is under control.

**Figure 1.23** Growth in consumption and real personal disposable income, including contributions to RPD growth



Source: NiGEM database, NIESR forecast

Growth of 4.7 per cent in consumption (see above) is therefore only maintained as a result of a fall in the savings rate to 3.6 per cent in 2022 and 1.5 per cent in 2023 (Figure 1.24).

**Figure 1.24** Savings rate

Source: NiGEM database, NIESR forecast

## Risks to the forecast

The largest and most dangerous downside risk to our GDP forecast is constituted by the ongoing war in Ukraine and its potential to disrupt the global economy if it either persists beyond our main case forecast assumption for its conclusion in 2022 or expands to draw in more countries. There are significant economic risks from a deepened sanctions regime which impacts on EU growth, with spillover consequences for the UK.

Domestically, the great risk on both sides to GDP and inflation comes from monetary policy. Our relatively weak GDP forecast could be further worsened by a more aggressive path for interest rates, or if the MPC decides to stick to the forecast path of interest rates in the face of weaker economic data than expected.

On the other hand, if policy is looser than forecast, we could see higher and more persistent inflation than in our central case scenario. A wage-price spiral does not take hold in our central scenario but the possibility of this constitutes a further risk to the upside for inflation.

Fiscal policy risks to both GDP and inflation are weighted to the upside, with the Chancellor likely to face calls for redistributive transfers to smooth the shock, more generous public spending plans to mitigate real wage falls for public sector workers, and delays or reductions to the rise in corporation tax scheduled for 2023.

In the longer term our growth assumptions are driven by the annual growth rate of labour productivity returning to around 1 per cent. Box C on page 30 discusses 'Deindustrialisation in the UK', arguably one of the reasons that long-run UK productivity growth is so low. Risks to this are weighted to the upside, with the potential for greater automation and efficiency through the adoption of remote working during Covid-19. One major downside risk to the potential of the UK economy is posed by larger and more persistent damage to labour supply by 'long Covid', whereby the participation rate takes longer to return to its pre-pandemic trend than in our forecast, if it ever does.

## References

- Allen, W., Chadha, J. and Turner, P. (2021) 'Quantitative tightening: Protecting monetary policy from fiscal encroachment', National Institute Economic Review 257
- Benigno, G. (2022) 'A new barometer of global supply chain pressure', Federal Reserve Bank of New York blog, January
- Bhamra, H., Macchiarelli, C., Sanchez Juanino, P., & Whyte, K. (forthcoming) 'Asset prices and consumption - a sector-level analysis'

- Barwell, R. (2021) 'MPC communication: the case for taking back control of financial conditions', NIESR UK Economic Outlook, Spring 2021
- Chadha, J. (2019) 'The Asset Purchase Facility and monetary policy' in *Renewing our Monetary Vows: Open Letters to the Governor of the Bank of England*, ed. Richard Barwell & Jagjit Chadha, NIESR Occasional Paper LVIII
- Chadha, J. (2020) 'Commentary: Monetary Policy in Troubled Times', *National Institute Economic Review* 252
- Chadha, J. (2022) 'Ratesetters can't avoid dissent as they navigate uncharted territory', *The Times*, 28 March
- Chadha, J., Küçük, H. & Pabst, A. (eds.) (2021) *Designing a New Fiscal Framework: Understanding and Confronting Uncertainty*, NIESR Occasional Paper LXI
- Freeman, R., Manova, K., Prayer, T. & Sampson, T. (2022) 'Unravelling deep integration: UK trade in the wake of Brexit', mimeo
- Woolcott, Z. (2022) 'Over two-fifths of pay awards are worth 4% or more', *Incomes Data Research*, 27 April
- KPMG & REC (2022) 'UK Report on Jobs', 8 April
- Lenoël, C. (2021) 'The long and uncertain road to exiting Quantitative Easing', NIESR UK Economic Outlook, Summer 2021
- Millard, S. (2022) 'Exploring Central Bank Communication', NIESR blog, 4 April
- Mortimer-Lee, P. (2022) 'Improved trade balance with the European Union raises challenging Brexit questions', NIESR UK Economic Outlook, Winter 2022
- Tenreyro, S. (2022) 'The economy and policy trade-offs – speech by Silvana Tenreyro', 2022 Dow Lecture, NIESR, February, available at [www.bankofengland.co.uk/speech/2022/february/silvana-tenreyro-speech-at-the-niesr-institutes-2022-dow-lecture-the-economy-and-policy-trade-offs](http://www.bankofengland.co.uk/speech/2022/february/silvana-tenreyro-speech-at-the-niesr-institutes-2022-dow-lecture-the-economy-and-policy-trade-offs)
- XpertHR (2022) 'Pay Settlement Report', March
- Patel, U. and Mortimer-Lee, P. (2022) 'The Impact of Energy Price Inflation', NIESR blog, 14 February



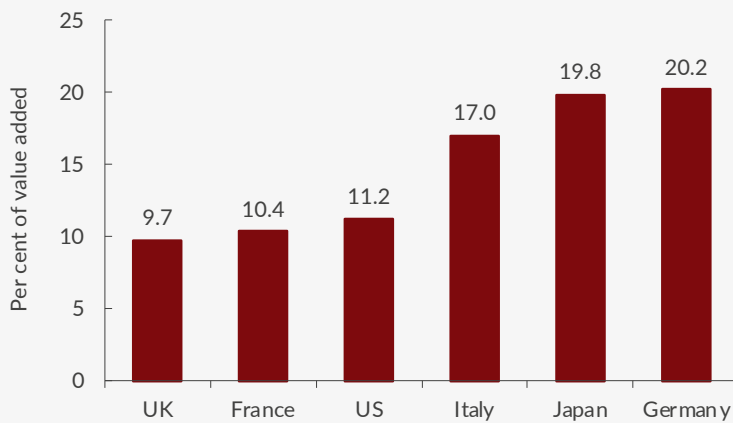
## Box C: Deindustrialisation in the UK

By Paul Mortimer-Lee<sup>1</sup> and Xuxin Mao

### Introduction

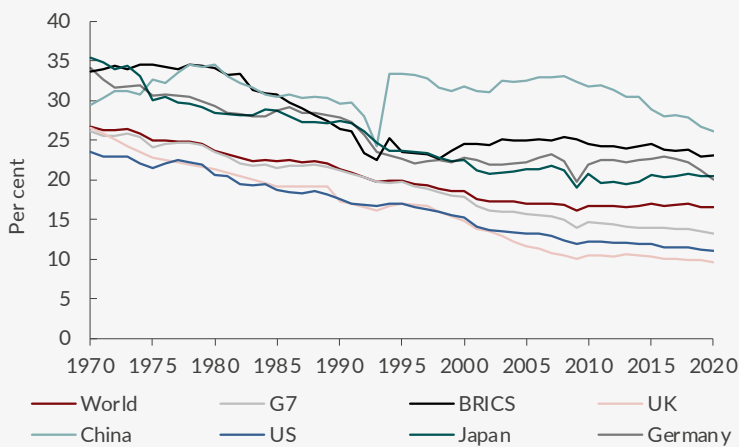
When people talk of “the industrialised countries” they are talking about rich economies with high living standards. Industrial development has been at the heart of several countries’ development strategies, including success stories such as Japan, South Korea, and China. Many of the fastest-growing economies over recent decades have seen rapid industrial development. Against this background, does it matter that the UK has the smallest share of industrial output in GDP of any country in the G7 (see Figure C1)? Or that it has seen the most significant decline in manufacturing share of all the G7 economies since 1970 (Figure C2)? This box examines how the manufacturing sector has evolved and suggests that its importance in the economy has shrunk considerably because both domestic and international market forces made this a rational and efficient use of resources as manufacturing has been relatively unprofitable compared with services. To raise manufacturing’s share again, the UK needs to cut consumption and run with lower interest rates and a softer exchange rate.

**Figure C1** Share of Value Added in Manufacturing



Source: OECD

**Figure C2** Manufacturing to GDP Ratio (1970-2020)



Source: UNCTAD

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## Does deindustrialisation matter?

There are several reasons for believing that the decline in manufacturing in the UK does matter:

- Manufacturing is an important employment sector, with about 2.4 million workers in the UK,
- Productivity growth is often faster in manufacturing than in services, so a small manufacturing share in GDP could mean slow overall productivity growth. From 1997 to 2021, output per hour worked in the manufacturing sector increased by more than 151 per cent, compared with only 31 per cent in the economy as a whole. Manufacturing accounts for about two-thirds of the private sector's Research and Development.
- Manufacturing uses as inputs a large share of the outputs of other industries – the ratio of gross output to net output is around 2½ to one, showing that many other sectors depend on manufacturing as a customer. Other firms distribute manufacturing goods as well as providing inputs.
- Manufacturing is unevenly distributed across the country, employing a higher proportion of workers in the East and West Midlands and a much lower proportion of workers in London, so weak manufacturing can imply regional disparities in incomes, jobs, and prosperity.

In the 1950s, manufacturing employed about a third of the workforce. This had shrunk to one in six by 1997 and is currently only one in twelve (Figure C3).

**Figure C3** UK Manufacturing employment to total employment ratio



Source: ONS

## Why has UK manufacturing shrunk so much?

Why has UK manufacturing shrunk so much, and much more than in competitor countries like Germany and Italy, where in 2019 manufacturing accounted for nearly twenty-two per cent and seventeen per cent of value added, respectively? We can look at this from two perspectives – one national and the other international.

In a market economy like the UK, the allocation of resources within the economy depends on price signals. In particular, the private sector will allocate capital according to where it can earn the highest rate of return. If we look at rates of return in manufacturing compared with services in the UK since 1997 (Figure C4), we can see that the rate of return in manufacturing has persistently been significantly below the rate of return in services, by an average of three percentage points per year.<sup>2</sup> Eltis (1996) reports this as a long-standing feature of the economy. Moreover, since 1997, manufacturing's rate of return was more variable, with a standard deviation of 2.85 percentage points compared with 2.09 percentage points in services.

<sup>2</sup> These are the ONS estimates for net rate of return on capital employed for UK private non-financial corporations in the manufacturing and services sectors.

In other words, investors in manufacturing took about a third more risk to receive a rate of return 20 per cent lower than in services. In that light, a reduction in the share of manufacturing in GDP was a rational and efficient use of resources given the price signals firms faced.

At the start of the 1960s, the rate of profitability in manufacturing measured by the real pre-tax rate of return on total trading assets was 11 per cent, but this fell sharply late in the decade and in the 1970s to 6 per cent (Williams, 1979). Eltis reports troughs of around 2 per cent in 1975 and 1981. There were multiple factors behind this, including union unrest in manufacturing, low flexibility, and high costs as well as slow innovation. The UK's joining the European Economic Community in 1973 exposed a weak UK manufacturing sector to more intense competition from Europe at a time when multinationals were seeking to rationalise production to maximise efficiency in a more open trading system (Cowling, 1985). Competitiveness was also poor for much of the 1970s. The result was loss of market share and increased import penetration, for example in motor manufacturing.

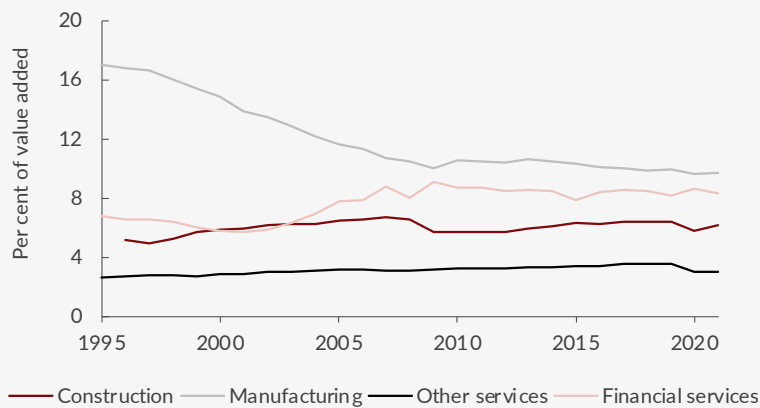
**Figure C4** Annual rate of return in the United Kingdom



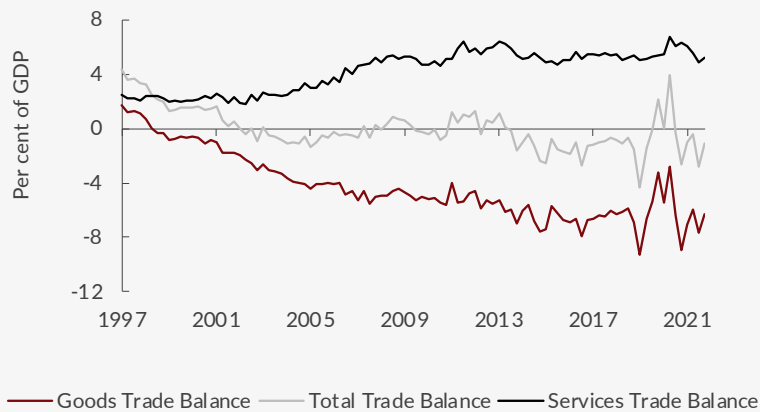
Source: ONS

The result has been an increased focus on services in both the composition of output and of hours worked (Figure C5).

From an international trade perspective, countries will specialise in the production of goods and services where they have a comparative advantage. What the UK's inferior performance in manufacturing suggests is that it has lacked a comparative advantage in manufacturing. Manufacturing profitability has been lower than in other countries (Walton and Citron, 2000) and so manufacturing has increasingly located outside the UK, leaving the UK to specialise in other sectors. In the light of the data reported above on profitability, it should be no surprise that the UK's exports of manufactures have shrunk as a share of total exports and that net imports of manufactures have risen over time while services' share and real net trade surplus has increased. (Figure C6).

**Figure C5** Share of sectors in total GVA

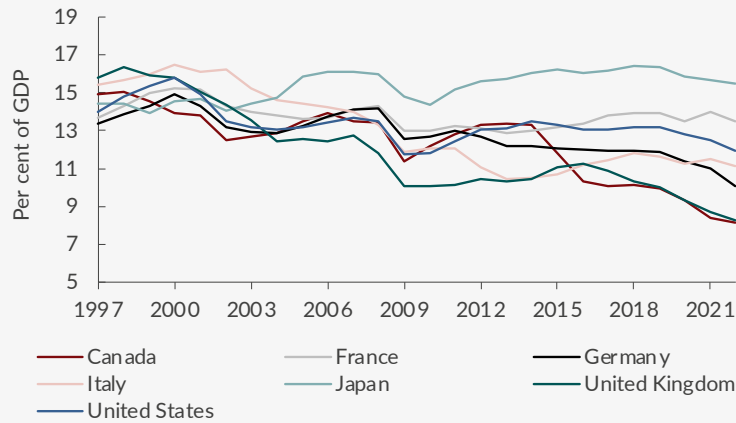
Source: OECD

**Figure C6** Real trade balance as a percentage of GDP

Source: ONS

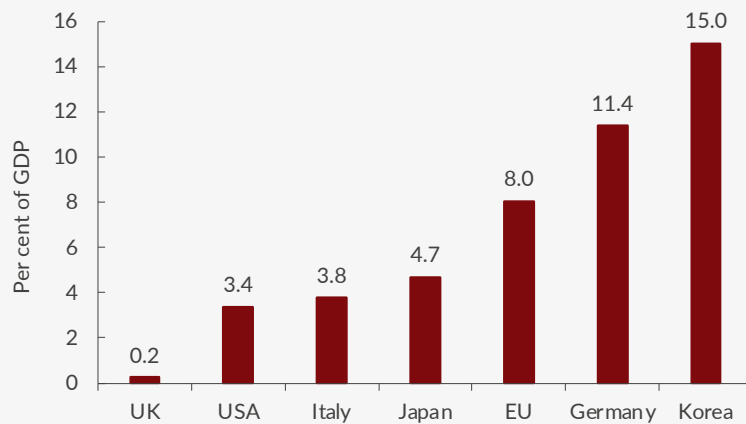
### Is it a lack of capital?

One of the pivotal theorems in international trade theory, the Heckscher-Ohlin Theorem, is that countries will export goods that heavily use factors they have in abundant supply relative to other countries and will import goods that heavily use factors they have in relatively scarce supply. The factor that appears to be in scarce supply in the UK is capital, which shows up in a very low investment rate (both total and business) compared with other countries (Figure C7). One reason for low capital accumulation in the UK is low profitability in manufacturing, which means the incentive to invest in this vital sector is less than to invest in manufacturing abroad or in (less capital-intensive) UK services – capital flows to where it is best remunerated.

**Figure C7** Business investment as a percentage of GDP

Source: OECD

The supply of capital to an economy comes from either domestic saving or foreign direct investment (FDI). In the case of manufacturing, the capital/labour ratio is significantly higher than in services – manufacturing is therefore more suited to countries with high savings ratios e.g., Korea, Japan, Germany, China) than to countries with low savings ratios (UK, USA) (Figure C8).

**Figure C8** Household savings as a percentage of GDP

Source: OECD

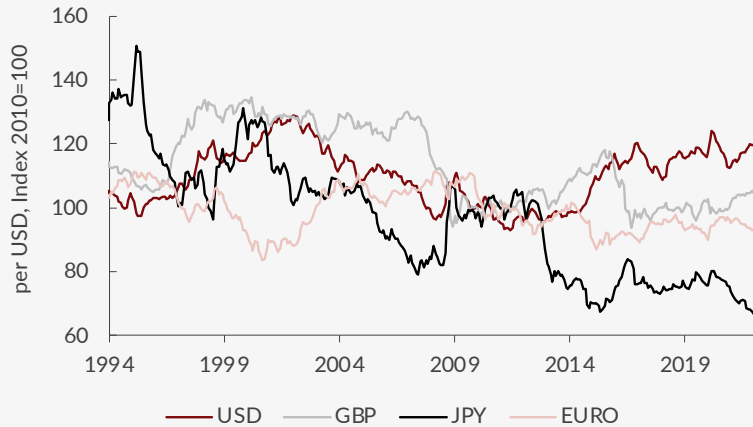
From this perspective, the UK's high rate of consumption by the private and public sectors generated too few savings to provide investment for capital-intensive manufacturing, compared with other countries that saved more and therefore were more suited to manufacturing. The UK therefore specialised in industries where it had a comparative advantage and less need for capital, such as financial and other services, media and tourism.

### And what about the exchange rate?

What role has the exchange rate played in this story? The UK currency has been free-floating since its ejection from the European Exchange Rate Mechanism in 1992. It was strong in the boom years leading up to the financial crisis, but then fell sharply because the UK was disproportionately affected by the recession in financial services. A strong recovery followed in the wake of the Euro crisis, which encouraged funds from

Germany and other Northern European countries which previously went to Southern Europe to divert to the UK, worsening competitiveness. These inflows sharply reversed following the 2016 Brexit vote, resulting in manufacturing profitability exceeding that in services in 2017 and 2018 for the first time in two decades. The real exchange rate is currently seven per cent below the average of 1997 to 2021 (Figure C9).

**Figure C9** Real broad effective exchange rate



Source: FRED database, Federal Reserve Bank of St Louis

The exchange rate has not played an independent role in the UK's deindustrialisation but is a symptom, like deindustrialisation, of the larger macro forces at play. The fact that other countries, such as China, have at times restricted their currencies' movement, often against the US dollar, has affected the UK's competitiveness relative to those countries, but not necessarily against the bulk of its trading partners. This is not to say that the exchange rate is not an important transmission mechanism. It is, for example, important for the profitability of the manufacturing sector, which clearly benefited from the 2016 depreciation of sterling. But it is not an independent lever: a freely-floating currency will move in order to maintain balance of payments equilibrium given that country's industrial structure. To change the exchange rate, the authorities have to change more basic variables such as the fiscal stance, and domestic interest rates. Given the Bank of England's 2 per cent inflation target, the scope to use interest rates to affect the exchange rate is limited if the inflation target is to be met.

## Reindustrialising the UK

If the UK wanted to raise the share of manufacturing in GDP, how could it do so? From the macro perspective, a pre-requisite would be to raise the savings ratio, for example through tighter fiscal policy. That would lead to lower demand than otherwise and to lower inflation. This would, in turn, lead to lower interest rates than otherwise, which would benefit investment and soften the exchange rate. This would improve manufacturing profitability and encourage a movement out of services and into manufacturing. But this would also clearly have distributional and political implications since it would add to the squeeze on household living standards, transfer income from households to corporates, especially in the traded goods sector, and probably increase inequality.

If a country wants to see its manufacturing sector grow faster, it would have to make more capital available to increase manufacturing investment, since manufacturing will require more capital than the services it replaces. This need for more capital implies switching resources away from the household sector and towards firms. Most investment is financed out of retained earnings, so higher profits are needed to incentivise and finance increased manufacturing investment.

Given the difficulties of raising productivity in the UK, increasing manufacturing prices relative to costs is the most appropriate route. The UK is a small part of global manufacturing so allowing UK firms to raise their prices means global manufacturing prices have to rise when expressed in sterling. The way to achieve

that is a softer exchange rate which will make manufacturing more profitable relative to services and which will increase the availability of profits for new investment. A lower exchange implies higher consumer prices and lower living standards than otherwise for many, but workers and communities in regions producing manufactures will benefit, with spillovers to support services and suppliers.

Other policies such as active industrial policy – which arguably helped transform the City of London's financial sector in the 1980s – are another alternative, as is an active regional policy and other measures to improve export competitiveness, such as free-trade zones. However, these measures are really means of diverting already limited savings towards investment in the manufacturing sector and do not overcome the macro imbalances that are at the heart of the UK's manufacturing problem and contribute to its poor productivity performance. The real solution is lower domestic absorption of resources which will allow interest rates and the exchange rate to move to stimulate external demand, which will disproportionately boost manufacturing. Even if this were to happen, the UK would still need to ensure the right conditions for manufacturing to flourish via investment in infrastructure, trade finance and human capital. If not, any gains in competitiveness would quickly be inflated away.

## References

- Cowling, K. (2018) 'The internationalization of production and de-industrialization' in *Technological change, industrial restructuring and regional development* (pp. 23–40), Routledge
- Eltis, W. (1996) 'How low profitability and weak innovativeness undermined UK industrial growth', *The Economic Journal*, 106(434), 184–195
- Walton, R., & Citron, L. (2000) 'International comparisons of company profitability', *Economic Trends*, 565, 33–46
- Williams, N. P. (1979) 'The profitability of UK industrial sectors', *Bank of England Quarterly Bulletin*, 19(4), 394–401