

NIESR

Monthly GDP Tracker

Household Spending Keeping Economy Afloat

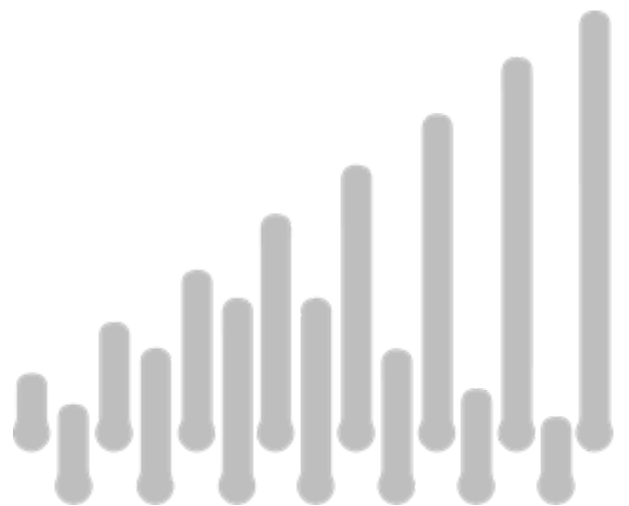
Paula Bejarano Carbo and Joanna Nowinska

14th June 2023

“GDP grew by 0.2 per cent in April relative to March, driven by an increase in services sector output which was partially offset by falls in production and construction output. The largest positive contributors to GDP were growth in wholesale and retail trade, and information and communication, while the largest negative contributor was manufacturing; these contributions are consistent with the longer-term trend of household spending driving growth. With the Bank Rate set to rise further over the coming months, curbing demand, it is likely that UK growth will continue to be anaemic at best.”

Paula Bejarano Carbo

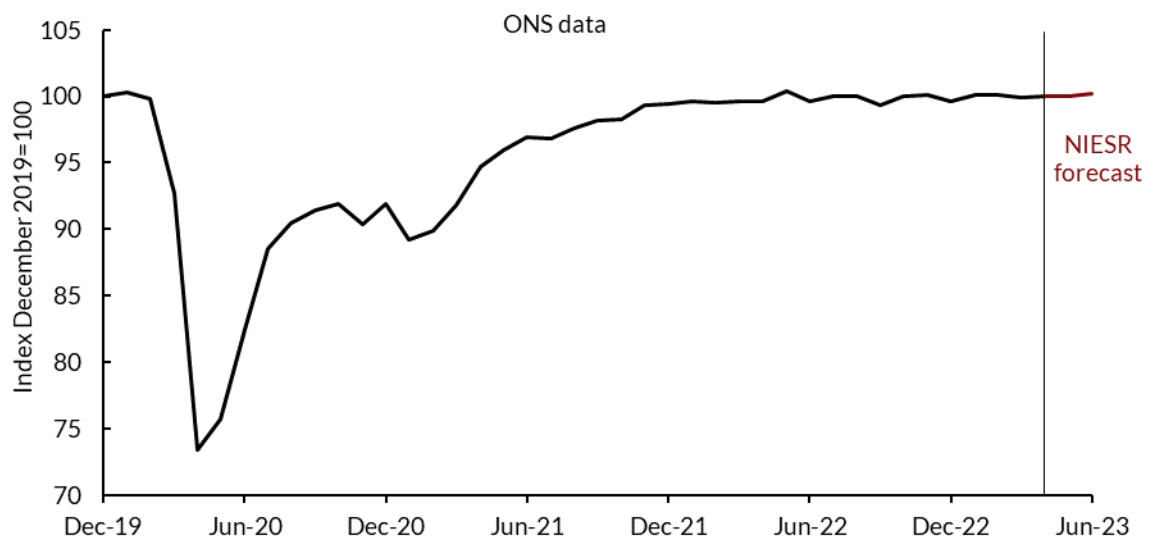
Associate Economist, NIESR



Main points

- Monthly GDP grew by 0.2 per cent in April 2023, following a decrease of 0.3 per cent in March. This monthly figure was driven by an increase in services sector output which was partially offset by falls in production and construction output.
- GDP grew by 0.1 per cent in the three months to April relative to the previous three months, in line with our most recent forecast. As shown in figure 1 below, the economy has largely flatlined following the initial stages of post-pandemic recovery; today's monthly GDP is estimated to be only 0.3 per cent above its pre-pandemic (February 2020) level. As we stress in [our latest UK Economic Outlook](#), for UK economic performance to 'jump-start' into a new era of high output growth, structural change will be needed.
- Higher-frequency data suggest that continued growth in services in May be partially offset by a further decline in manufacturing activity. We forecast monthly GDP to remain flat in May relative to April.
- We forecast GDP to grow by 0.1 per cent in the second quarter of 2023, remaining broadly consistent with the longer-term trend of low economic growth in the United Kingdom.

Figure 1 - UK GDP



Economic setting

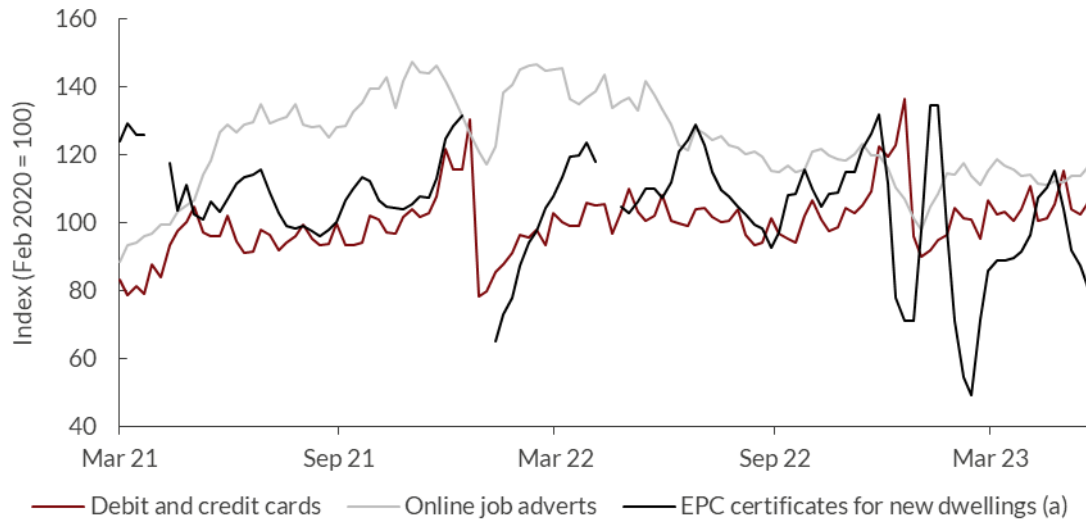
In our [previous GDP tracker](#), published on 12 May, we observed that monthly GDP fell by 0.3 per cent in March relative to February, driven by a contraction in services. GDP grew by 0.1 per cent in the first quarter of 2023; the data thus remained broadly consistent with the longer-term trend of low economic growth in the United Kingdom.

Today's data suggest that monthly GDP grew by 0.2 per cent in April, driven by growth in consumer-facing services such as wholesale and retail trade, and information and communication, which was partially offset by a decline in manufacturing output. These contributions are consistent with the longer-term trend of household spending driving growth. With the Bank Rate set to rise further over the coming months, curbing demand, it is likely that UK growth will continue to be anaemic at best.

Our [latest UK Economic Outlook](#), published last month, highlights that despite recent positive news, we think GDP growth will remain close to zero in 2023. We forecast annual GDP growth of 0.3 per cent in 2023, compared to 2022 (which saw annual GDP growth of 4.1 per cent). This flatlining of the UK economy is due to multiple factors, including high inflation (which continues to erode household and firm budgets) and high interest rates (which will have a tangible impact on demand in the coming months). Two somewhat contradictory messages emerge from this forecast: on the one hand, the outlook is cautiously optimistic - it seems that the worst of the energy price shock is behind us and, contrary to what some may have expected, the United Kingdom will avoid facing a recession in the near-term; on the other hand, the outlook remains subdued - it will nonetheless feel like a recession for many households, who we expect will face an average fall to their real personal disposable incomes of roughly 2 per cent over the next three years.

To further contextualise our forecast of 0.1 per cent growth in the second quarter of 2023, figure 2 compares spending and hiring indicators to pre-pandemic levels, while figure 3 records recent trends in PMIs. High frequency spending and hiring indicators have remained broadly stable throughout 2023, though our housing indicator has seen more volatility than in previous years, possibly due to the effects of the current monetary tightening cycle on the housing market. It is notable that credit and debit card spending has remained higher than pre-pandemic levels throughout 2023, despite the cost-of-living crisis and uncertain economic outlook. This supports our view that high consumer spending has been driving economic growth in the first half of the year. Figure 3 illustrates continued growth in services output in May, though anaemic growth in manufacturing may continue to weigh down on GDP. Taken together, these two figures suggest that the economic outlook for the second quarter of 2023 is one of stable, but low, growth driven by household spending.

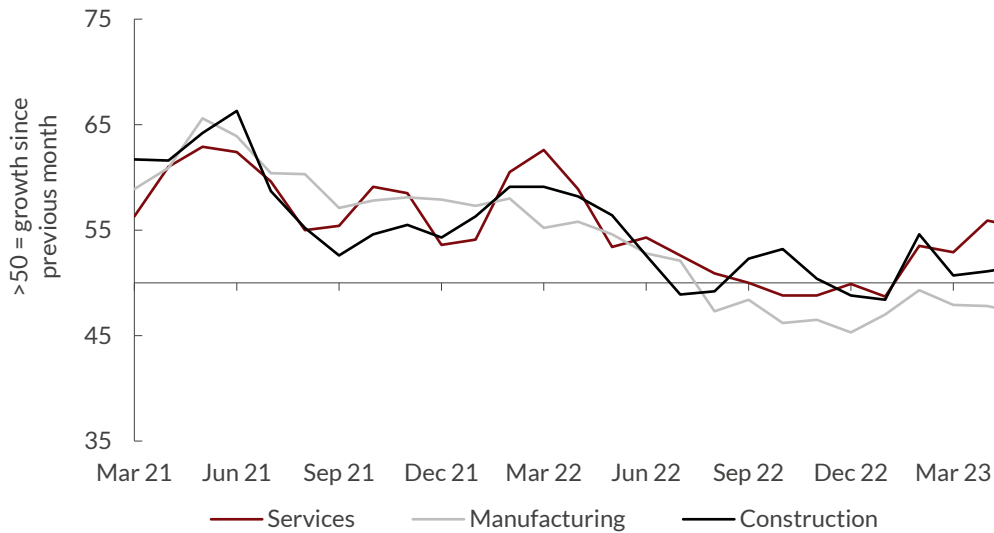
Figure 2 – Spending and hiring indicators (weekly indices)



Notes: (a) England and Wales. Debit and credit cards (CHAPSbased): Index February 2020 = 100, a backward looking seven-day rolling average, non-seasonally adjusted, nominal prices. Job adverts: Index February 2020 = 100, weekly average. EPC certificates: Index February 2020 = 100, four-week rolling average, adjusted for timing of holidays.

Source: ONS, BoE, Adzuna, MHCLG, NIESR.

Figure 3 – Recent trends in PMIs



Sources: Refinitiv Datastream, S&P

News in latest ONS data

The monthly GDP data for April were worse than our May estimate, growing by 0.2 per cent rather than growing by 0.3 per cent. GDP grew by 0.1 per cent in the three months to April overall, in line with our previous forecast.

Figure 4 – UK GDP growth (3 months on previous 3 months, per cent)

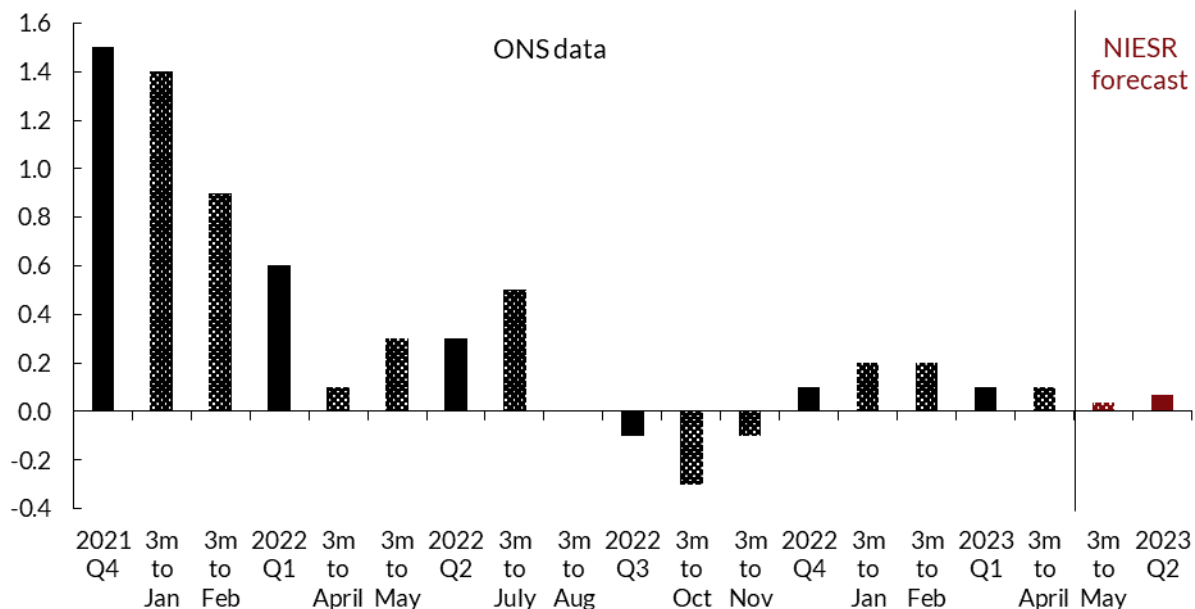
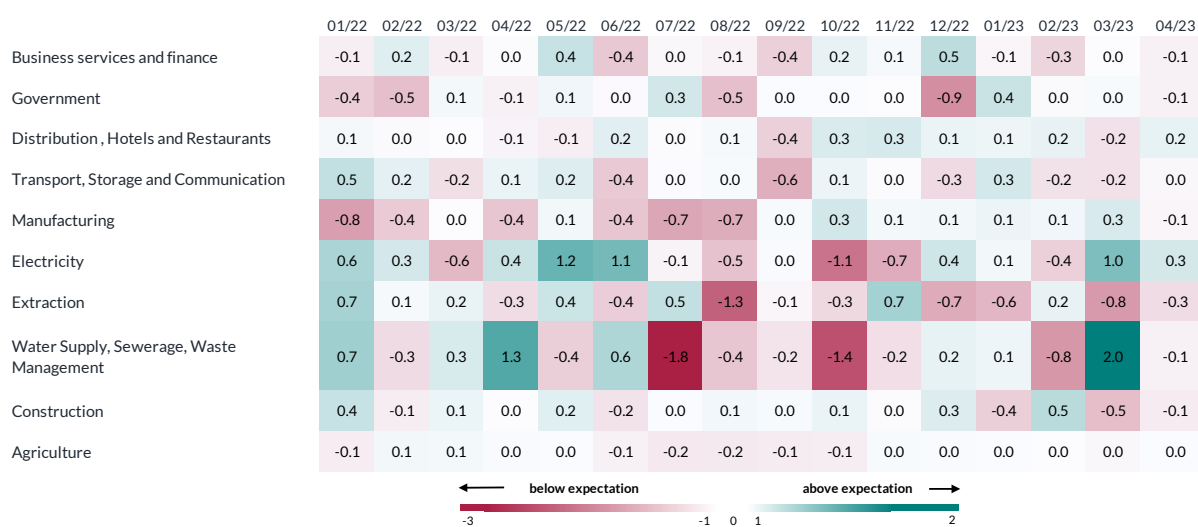


Figure 5 shows a heat map of the data surprises across sectors in the monthly data, relative to last month's GDP Tracker, highlighting the sectors where the surprises are large relative to the volatility of the output data.

Figure 5 – Surprises in monthly data



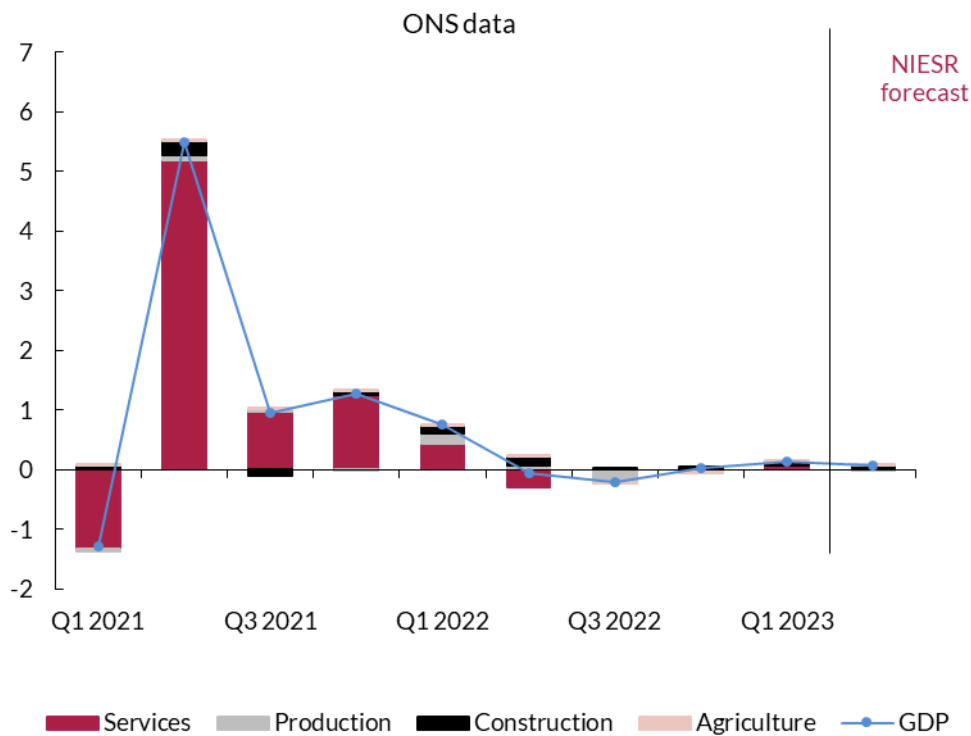
Note: Cells show forecast errors as a fraction of the standard deviation of errors for each series.

For more information on our forecast estimates relative to ONS data, please see the 'Health Warning' section below.

Sectoral detail

We forecast GDP to grow by 0.1 per cent in the second quarter of this year. As seen in Figure 6 below, we expect to see low growth in all the major sectors.

Figure 6 - Contributions to quarterly GDP growth (percentage points)

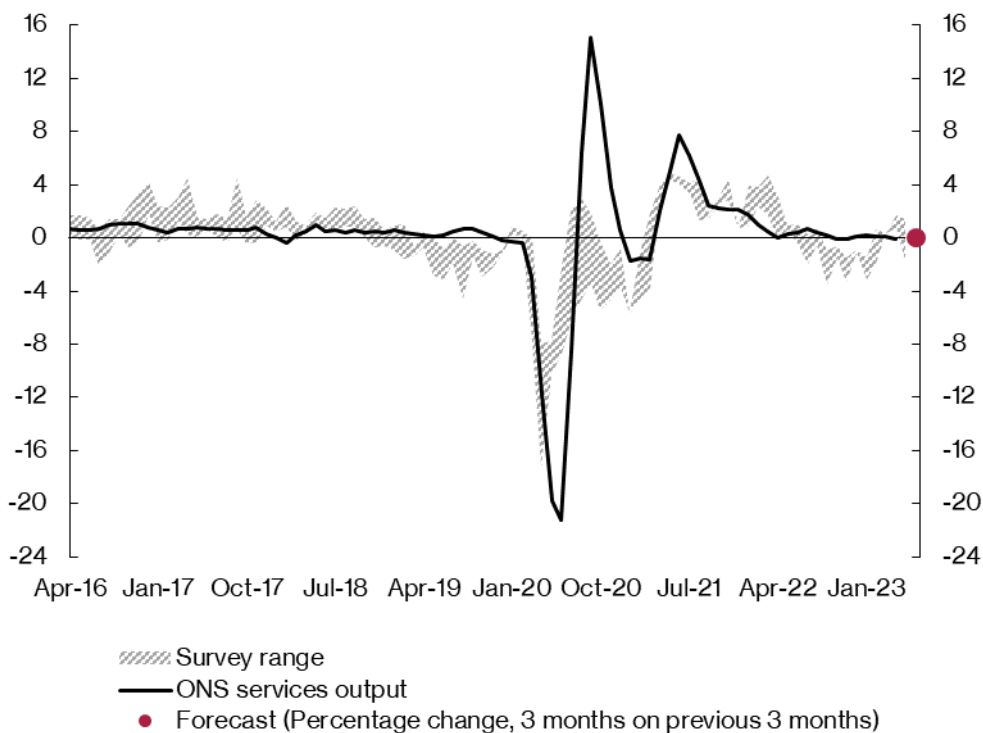


Services (80 per cent of GDP)

The survey balances point to a third consecutive month of increasing business activity in the services sector, as shown by the survey indicators in figures 3 and 7. The S&P Global/CIPS UK Services PMI reported an optimistic balance of 55.2 in May, slightly below the figure of 55.9 in April. Surveyed businesses noted a sustained rise in consumer spending in April, especially in the travel, tourism and leisure sub-sectors. A combination of high demand and still-high input costs meant that businesses continued to report passing on higher costs to clients, though the rate of prices-charged inflation softened relative to April.

Based on recent developments we forecast UK service sector activity to remain flat in the second quarter of 2023 relative to the previous quarter.

Figure 7 - ONS service sector growth (3 months on previous 3 months, per cent) compared with swathe of business survey balances (standardised)



Note: The shaded swathe shows the highest and lowest values each month of a range of business survey balances that have been standardised so that they have the same mean and standard deviation as the quarterly growth of the ONS series.
 Source: ONS, CBI, Markit, Bank of England Agents, EC, NIESR calculations.

Construction (6 per cent of GDP)

The S&P Global/CIPS UK Construction PMI survey registered an increase to 51.6 in May from 51.1 in April. Commercial building was the fastest growing area of this sector, while residential building activity remained subdued due to worries about the impact of higher interest rates. Indeed, work on residential building projects decreased in May to a its lowest level in 14 years (excluding the pandemic period).

Our forecast for the second quarter of 2023 sees growth of 0.6 per cent in this sector.

Production (14 per cent of GDP)

We forecast that production sector output will remain flat in the second quarter of 2023, though output in this sector is volatile and difficult to predict with accuracy on a quarterly basis. The production sector comprises manufacturing; mining and quarrying (which includes oil and gas extraction); electricity, gas, steam and air conditioning; and water supply and sewerage. The largest of these sectors are manufacturing, accounting for 10 per cent of GDP, and mining and quarrying, accounting for 1 per cent of GDP.

Manufacturing

The S&P Global/CIPS UK manufacturing PMI for January posted 47.1 in May, down from 47.8 in April – representing the tenth consecutive month this sector has contracted (as noted by recording figures below the neutral 50). This sustained decline has been driven by a continuing combination of weakened domestic and export demand, eroding consumer confidence, Brexit-related trade difficulties, and a preference for reduced inventory holdings (as a cashflow-improving measure).

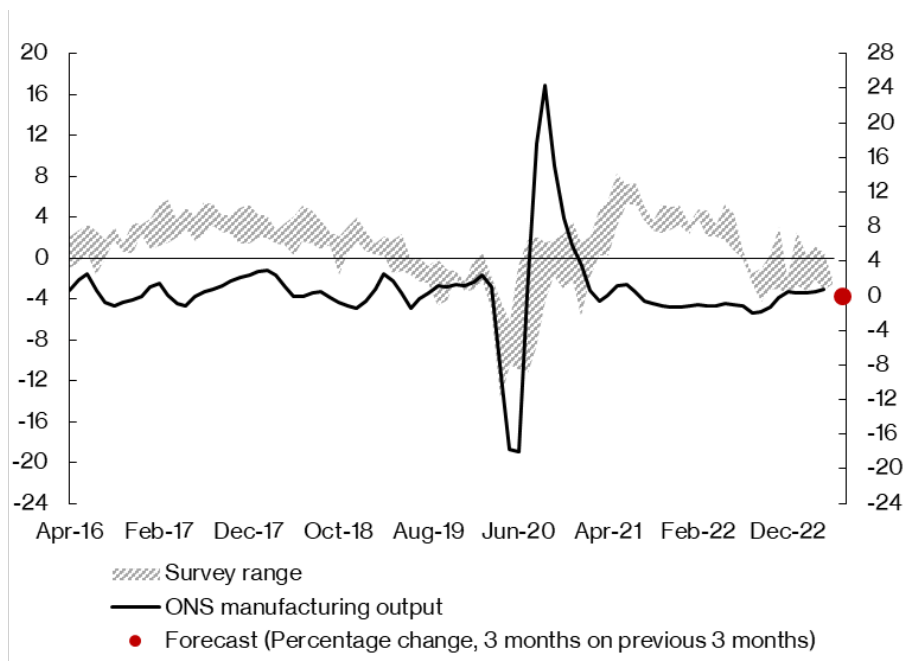
Our forecast for the second quarter of 2023 sees output remaining flat in this sector.

The S&P Global/CIPS UK Composite PMI – which combines comparable services and manufacturing indices – fell slightly to 54.0 in May from 54.9 in April. It is positive that overall, private sector output seems to have experienced a sustained rebound over the start of 2023.

Mining and quarrying

Mining and quarrying (extraction) is a small but erratic component of industrial production that can have an influence on overall GDP growth. We forecast a contraction of 1.5 per cent in this sector in the second quarter of 2023.

Figure 8 - ONS manufacturing sector growth (3 months on previous 3 months, per cent) compared with swathe of business survey balances (standardised)



Note: The shaded swathe shows the highest and lowest values each month of a range of business survey balances that have been standardised so that they have the same mean and standard deviation as the quarterly growth of the ONS series. Source: ONS, CBI, Markit, Bank of England Agents, EC, NIESR calculations.

Table 1 - Summary Table of GDP growth (2019=100)

2019=100	GDP index	Index of Services	Index of Services - Components				Index of Production	Index of Production - Components				Index of Construction	Agriculture
			Business services and finance	Government and other services	Distribution, Hotels and Restaurants	Transport, Storage and Communications		Manufacturing	Electricity, gas, steam and air conditioning	Mining and Quarrying	Water Supply, Sewerage and Waste Management		
Latest weights	1000	796	338	220	134	103	135	102	15	6	13	62	7
Apr-22	100.0	98.5	104.2	93.9	88.3	102.5	106.6	106.5	111.9	87.9	117.8	103.1	105.8
May-22	100.8	99.4	105.3	95.3	88.3	103.5	106.7	106.9	112.5	88.5	114.6	105.5	106.0
Jun-22	100.0	98.8	104.6	94.5	88.1	102.9	105.6	105.5	111.5	86.2	116.4	102.8	106.1
Jul-22	100.4	99.3	104.8	95.2	88.4	104.0	105.2	104.9	110.9	91.3	113.4	104.0	106.2
Aug-22	100.4	99.4	105.0	95.3	87.7	105.3	103.9	104.0	110.2	83.8	113.7	104.6	106.0
Sep-22	99.7	98.5	104.2	94.9	86.3	102.9	104.0	104.0	110.0	84.6	114.2	104.5	105.4
Oct-22	100.4	99.2	104.7	95.8	87.7	103.2	104.4	105.2	106.7	84.4	112.8	105.2	105.5
Nov-22	100.5	99.5	104.9	95.4	87.9	104.8	104.4	104.6	106.7	86.7	115.1	105.5	105.3
Dec-22	100.0	98.7	105.4	93.2	87.7	103.7	104.6	104.7	110.7	82.3	115.9	106.3	105.3
Jan-23	100.5	99.5	105.3	94.7	88.2	105.4	104.3	105.1	108.6	79.3	115.3	104.6	105.4
Feb-23	100.5	99.3	105.6	94.5	88.1	104.6	104.2	105.2	107.2	81.2	113.6	107.3	105.4
Mar-23	100.3	98.8	105.3	94.3	87.5	103.3	105.0	105.9	108.3	80.1	115.5	107.5	105.4
Apr-23	100.4	99.2	105.5	94.4	88.3	104.1	104.7	105.6	108.9	78.6	115.4	106.8	105.5
May-23	100.5	99.3	105.8	94.3	87.9	104.2	104.3	105.3	107.5	79.2	115.4	106.8	105.7
Jun-23	100.6	99.4	106.0	94.3	87.9	104.3	104.4	105.4	107.0	79.3	115.7	107.5	105.8

Percentage change, 3 months on previous 3 months

Apr-22	0.1	0.1	0.3	-2.1	0.8	2.8	-0.5	-1.1	1.2	1.9	0.9	2.3	1.0
May-22	0.3	0.3	0.6	-1.4	0.9	1.5	-0.5	-0.8	0.3	0.4	0.3	3.0	0.9
Jun-22	0.3	0.4	0.9	-0.6	0.5	0.6	-0.9	-1.0	0.3	-3.0	0.2	1.9	0.6
Jul-22	0.5	0.6	0.8	0.5	0.3	0.8	-1.0	-1.2	0.1	-0.9	-1.6	1.5	0.4
Aug-22	0.0	0.4	0.3	0.3	0.1	1.2	-1.8	-2.0	-0.7	-2.1	-1.5	-0.1	0.2
Sep-22	-0.1	0.2	0.0	0.6	-0.9	1.1	-1.8	-1.9	-1.4	-1.1	-2.2	0.6	-0.1
Oct-22	-0.3	-0.1	-0.3	0.4	-1.2	0.3	-1.6	-1.3	-2.4	-5.0	-1.1	0.7	-0.4
Nov-22	-0.1	-0.1	-0.2	0.4	-0.9	-0.4	-0.6	-0.2	-2.8	-2.1	-0.4	1.2	-0.7
Dec-22	0.1	0.1	0.3	-0.4	0.3	-0.2	0.0	0.5	-2.1	-2.4	0.7	1.3	-0.5
Jan-23	0.2	0.2	0.5	-0.9	0.8	0.8	0.3	0.4	-0.3	-1.8	1.6	0.7	-0.3
Feb-23	0.2	0.1	0.8	-1.3	0.8	0.9	0.1	0.4	1.0	-5.0	0.8	1.0	0.0
Mar-23	0.1	0.1	0.4	-0.3	0.2	0.5	0.1	0.5	0.0	-5.1	0.2	0.7	0.0
Apr-23	0.1	-0.1	0.3	0.0	0.0	-0.6	0.2	0.7	-0.5	-3.4	-0.5	1.6	0.1
May-23	0.0	-0.1	0.1	0.2	-0.1	-0.7	0.3	0.6	-0.6	-2.0	0.4	0.9	0.1
Jun-23	0.1	0.0	0.3	-0.2	0.1	-0.2	0.0	0.0	-0.2	-1.5	0.6	0.6	0.2

Percentage change, month on same month in previous year

Apr-22	5.1	6.7	3.7	8.9	8.1	10.0	-2.0	-3.9	-6.7	19.4	6.0	3.1	6.7
May-22	4.6	6.0	4.7	7.3	2.3	11.9	-3.3	-4.0	-12.0	15.2	3.2	6.4	5.4
Jun-22	2.8	3.7	3.1	4.2	-0.7	10.1	-2.8	-4.7	-7.4	25.3	2.4	4.5	3.7
Jul-22	3.3	4.4	3.7	5.3	0.0	9.8	-3.3	-4.8	-3.3	11.5	-0.9	6.4	2.4
Aug-22	2.5	3.5	3.6	3.7	-2.9	10.5	-5.0	-5.5	-0.1	-13.7	0.4	7.5	1.0
Sep-22	1.1	1.6	1.4	1.5	-4.5	8.7	-4.0	-5.1	1.6	-9.7	2.6	6.8	0.7
Oct-22	1.7	2.0	2.0	1.6	-2.1	6.2	-2.6	-3.3	3.7	-6.2	-1.9	7.9	0.7
Nov-22	0.9	1.1	1.1	-0.8	-0.9	6.3	-2.9	-3.6	-2.0	-1.1	0.1	6.2	0.7
Dec-22	0.2	0.3	1.2	-4.4	2.2	4.6	-2.7	-3.5	0.9	-3.9	0.2	6.1	0.7
Jan-23	0.5	0.9	1.8	-1.3	0.8	3.5	-3.0	-2.4	-3.0	-12.1	-0.6	3.4	0.7
Feb-23	0.6	0.8	1.5	-0.2	-0.3	1.7	-2.7	-1.9	-4.5	-9.9	-1.9	6.0	0.0
Mar-23	0.3	0.4	1.3	-0.6	0.1	0.9	-2.0	-1.3	-2.0	-11.5	-0.7	4.1	-0.4
Apr-23	0.5	0.7	1.2	0.5	0.0	1.6	-1.9	-0.8	-2.7	-10.6	-2.0	3.6	-0.3
May-23	-0.3	-0.1	0.4	-1.0	-0.4	0.6	-2.3	-1.5	-4.5	-10.5	0.7	1.3	-0.3
Jun-23	0.6	0.6	1.4	-0.2	-0.2	1.4	-1.2	-0.1	-4.1	-8.1	-0.6	4.6	-0.3

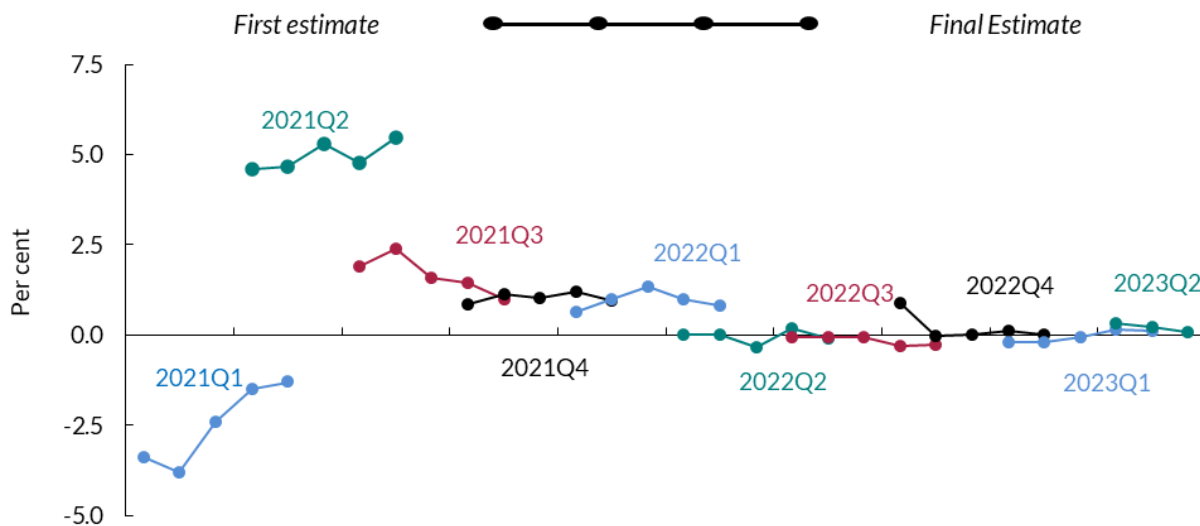
Percentage change, month on previous month

Apr-22	0.0	0.0	0.2	-1.1	1.0	0.1	-0.4	-0.7	1.3	-2.9	1.3	-0.1	0.0
May-22	0.8	0.8	1.1	1.5	0.0	1.0	0.1	0.4	0.5	0.7	-2.7	2.3	0.2
Jun-22	-0.7	-0.5	-0.7	-0.8	-0.2	-0.6	-1.1	-1.3	-0.9	-2.6	1.6	-2.6	0.1
Jul-22	0.4	0.4	0.2	0.7	0.3	1.1	-0.4	-0.6	-0.5	5.9	-2.6	1.2	0.1
Aug-22	0.0	0.2	0.2	0.1	-0.8	1.3	-1.2	-0.9	-0.6	-8.2	0.3	0.6	-0.2
Sep-22	-0.7	-0.9	-0.8	-0.4	-1.6	-2.3	0.1	0.0	-0.2	1.0	0.4	-0.1	-0.6
Oct-22	0.7	0.7	0.5	0.9	1.6	0.3	0.3	1.2	-3.0	-0.2	-1.2	0.7	0.1
Nov-22	0.2	0.2	0.2	-0.4	0.2	1.6	0.0	-0.6	0.0	2.7	2.0	0.2	-0.2
Dec-22	-0.5	-0.8	0.5	-2.3	-0.2	-1.0	0.2	0.1	3.7	-5.1	0.7	0.8	0.0
Jan-23	0.5	0.8	-0.1	1.6	0.6	1.6	-0.3	0.4	-1.9	-3.6	-0.5	-1.6	0.1
Feb-23	0.0	-0.1	0.3	-0.2	-0.1	-0.8	-0.1	0.1	-1.3	2.4	-1.5	2.6	0.0
Mar-23	-0.3	-0.5	-0.3	-0.2	-0.7	-1.2	0.7	0.7	1.0	-1.4	1.7	0.2	0.0
Apr-23	0.2	0.3	0.2	0.1	0.9	0.8	-0.3	-0.3	0.6	-1.9	-0.1	-0.6	0.1
May-23	0.0	0.1	0.3	-0.1	-0.4	0.1	-0.3	-0.3	-1.3	0.8	0.0	0.0	0.1
Jun-23	0.1	0.1	0.2	0.0	0.0	0.1	0.1	0.1	-0.5	0.0	0.2	0.6	0.1

Health warning

The NIESR GDP Tracker provides a rolling monthly forecast for GDP growth. Our first estimate of growth for any particular quarter starts in the first month of that quarter and is then updated each month until the first official release in the second month of the following quarter. So, for example, our first estimate of growth in the first quarter of 2020 was published in January and then updated four times (in February, March, April and May) before the ONS published its first estimate for the first quarter of 2020 in May 2020. In other words, we publish four estimates of GDP for any particular quarter before the official release and change them as new evidence becomes available. Figure 9 shows how our short-term forecasts for recent quarters have changed as new information has become available.

Figure 9 - Evolution of the NIESR quarterly GDP forecast (3 months on previous 3 months, per cent)



NIESR’s short-term predictions of monthly GDP growth are based on bottom-up analysis of recent trends in the monthly sub-components of GDP. These predictions are constructed by aggregating statistical model forecasts of ten sub-components of GDP. The statistical models that have been developed make use of past trends in the data as well as survey evidence to build short-term predictions of the sub-components of monthly GDP. These provide a statistically-based guide to current trends based on the latest available data. Each month these predictions are updated as new ONS data and new surveys become available. Table 2 shows the growth in each sector for the three months to April, compared with the previous three months, against the forecast for each in our May GDP Tracker.

Table 2 - 3-month-on-3-month growth to April (per cent)

	GDP	Index of Services	Index of Production	Manufacturing	Mining and Quarrying	Index of Construction
Forecast	0.1	-0.1	0.2	0.8	-2.9	1.9
Outturn	0.1	-0.1	0.2	0.7	-3.4	1.6

It is important to stress that the timelier NIESR guide to quarterly GDP growth is less reliable than the subsequent ONS data releases as its data content is lower, particularly for estimates of the current quarter which in some months will be based only on forecasts rather than hard data. To mitigate this issue, NIESR provides a guide to average errors based on past performance. NIESR also provides clear guidance on how the latest news has caused its estimates of GDP growth in the current and preceding quarter to change and thereby quantify how the short-term outlook is being affected by recent data releases (see, e.g., Figure 5).

As the bottom-up methodology for producing estimates of GDP growth for the current and preceding quarters is still relatively new, we do not yet have a long track record of estimates produced by this approach. To check how our methodology would work in real time we went back to late 2016 to produce judgement-free forecasts of GDP growth in future months based on the monthly data series available for the components in November 2016 (this was the earliest vintage then available on the ONS website) and in each subsequent three months. These are shown in Table 3, which has been updated to include estimates since we started producing the GDP Tracker in July 2018. We calculate the forecast quarter-on-quarter growth rates for the current quarter and compare these to the ONS first estimates of quarterly growth. The average absolute error for the quarters considered was 0.22 percentage points. The largest error was for the second quarter of 2020 when our GDP tracker in May pointed to growth of -22.8 per cent, 2.4 percentage points lower than the ONS first estimate of GDP growth.

Table 3 - Forecast Error Analysis: Quarterly GDP growth (per cent)

Quarter	ONS first estimate	ONS latest estimate	NIESR nowcast*	Error in NIESR nowcast**	ONS latest – first
2016Q4	0.6	0.7	0.7	-0.1	0.1
2017Q1	0.3	0.6	0.6	-0.3	0.3
2017Q2	0.3	0.3	0.4	-0.1	0.0
2017Q3	0.4	0.3	0.4	0.0	-0.1
2017Q4	0.5	0.4	0.4	0.1	-0.1
2018Q1	0.1	0.0	0.5	-0.4	-0.1
2018Q2	0.4	0.5	0.0	0.4	0.1
2018Q3	0.6	0.6	0.5	0.1	0.0
2018Q4	0.2	0.2	0.4	-0.2	0.0
2019Q1	0.5	0.6	0.2	0.3	0.1
2019Q2	-0.2	-0.2	0.3	-0.5	0.0
2019Q3	0.3	0.4	0.2	0.1	0.1
2019Q4	0.0	0	0.2	-0.2	0.0
2020Q1	-2.0	-2.1	0.2	-2.2	-0.1
2020Q2	-20.4	-20.4	-22.8	2.4	0.0
2020Q3	15.5	16.1	15.0	0.5	0.6
2020Q4	1.0		-2.2	3.2	
2021Q1			-3.8		
Average absolute error				0.22	0.08

Notes for Editors:

For further information please contact the NIESR Press Office: press@niesr.ac.uk or Luca Pieri on 020 3948 4488 / l.pieri@niesr.ac.uk

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