NIESR
Monthly GDP Tracker

GDP Set to Flatline in Q2, Though Downside Risks Have Grown

Paula Bejarano Carbo

13th July 2023

"Today's data indicate that GDP remained flat in the three months to May, in line with our previous forecast, and consistent with the longer-term trend of low economic growth in the UK. Monthly GDP fell by 0.1 per cent in May following growth of 0.2 per cent in April, driven by a fall in production output and no growth in the services sector. With the Bank Rate now at 5 per cent, suppressing demand, UK growth will continue to be anaemic at best in the coming months."

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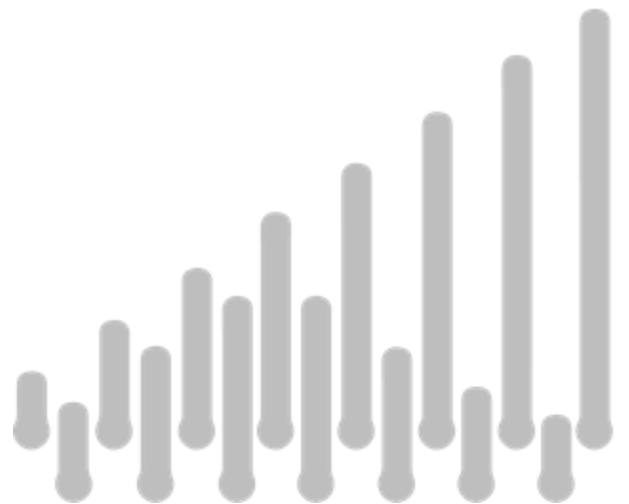
Main points

- Monthly GDP fell by 0.1 per cent in May 2023 following growth of 0.2 per cent in April. This monthly figure was driven by driven by a fall in production output of 0.6 per cent following a fall of 0.2 per cent in April, and services output remaining flat following growth of 0.3 per cent in April.

- GDP remained flat in the three months to May 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 0.2 per cent above its pre-pandemic (February 2020) level.

- We forecast GDP to remain flat in the second quarter of 2023, remaining broadly consistent with the longer-term trend of low economic growth in the United Kingdom. That said, as persistently high inflation continues to squeeze household budgets, alongside the effects of the high cost of borrowing, demand will be curbed in the near term. As a result, service-sector output in particular may continue to falter and drag down on GDP in the coming month. The risks to GDP at the moment seem to be skewed downside.

Figure 1 - UK GDP
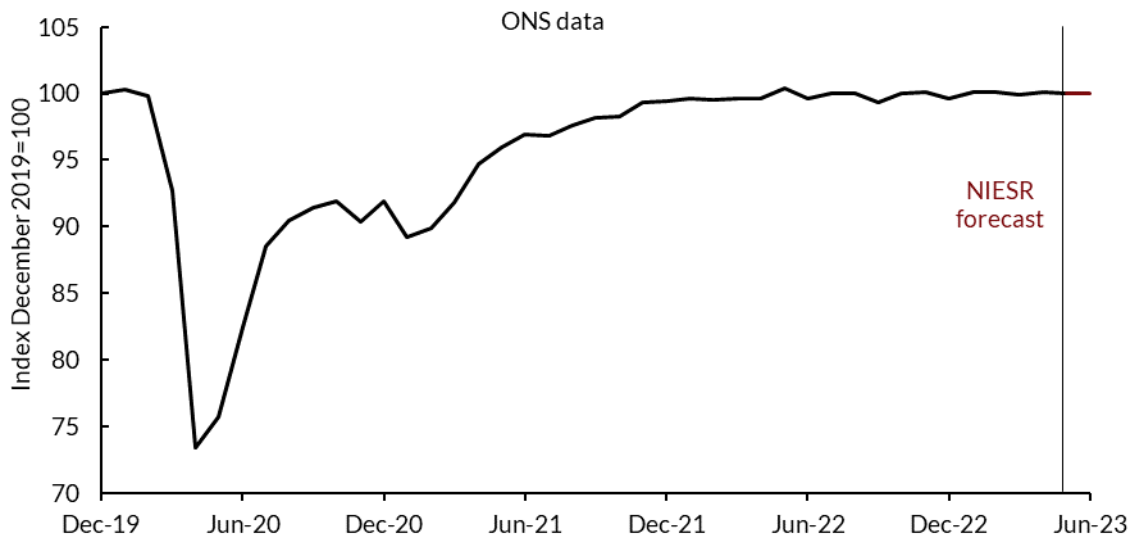
Economic setting

In our previous GDP tracker, published on 12 June, we observed that 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. 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 fell by 0.1 per cent in May following growth of 0.2 per cent in April, driven by a fall in production output and no growth in the services sector. With the Bank Rate already at 5 per cent and possibly rising further over the coming months, suppressing demand, it is unclear whether household spending will be able to keep the services sector afloat; in any case, we can expect GDP growth to be anaemic at best.

The latest ONS quarterly national accounts for the first quarter of 2023 highlight that the household savings ratio fell to 8.7 per cent in the first quarter of the year, down from 9.3 per cent in the fourth quarter of 2022. However, there was no change in real household consumption on the quarter, rather, real households' disposable income fell by 0.8 per cent in Q1 following growth of 1.3 per cent in 2022Q4. As persistently high inflation continues to squeeze household budgets, alongside the effects of the high cost of borrowing, service-sector output may continue to falter and drag down on GDP in the coming month.

Earlier this week, we published our Wage Tracker. The recent ONS estimates suggest that the annual growth rate of average weekly earnings, including bonuses, was 6.9 per cent in the three months to May, while pay growth excluding bonuses was 7.3 per cent- equalling the largest growth rate in regular pay recorded during the pandemic. Our forecast for the second quarter of this year sees both figures at 7.2 per cent. High wage growth over the past year has been enabled by the tightness of the labour market. However, there are early signs that the labour market may be gradually loosening; for instance, the unemployment rate increased slightly to 4.0 per cent and the number of vacancies fell by 85,000 in the three months to May, bringing the unemployment to vacancy ratio to 1.3. It is possible that this loosening will generate a gradual decrease in average wage growth, which alongside high inflation and borrowing costs will weigh down on household spending, and consequently, GDP, in the coming months. On the other hand, if the labour market remains tight, the MPC may feel a further rate hike is warranted. In any case, it seems likely that demand will be curbed significantly in the coming months. Correspondingly, the risks to GDP forecasts are skewed to the downside at the moment.

To further contextualise our forecast of GDP remaining flat 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 close to 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 keeping the economy afloat in the first

half of the year. Figure 3 illustrates continued growth in services output in June, though decreased output in construction and in manufacturing may weigh down on GDP. Taken together, these two figures suggest that the economic outlook for the second quarter of 2023 is one of flatlining output.

Figure 2 – Spending and hiring indicators (weekly indices)
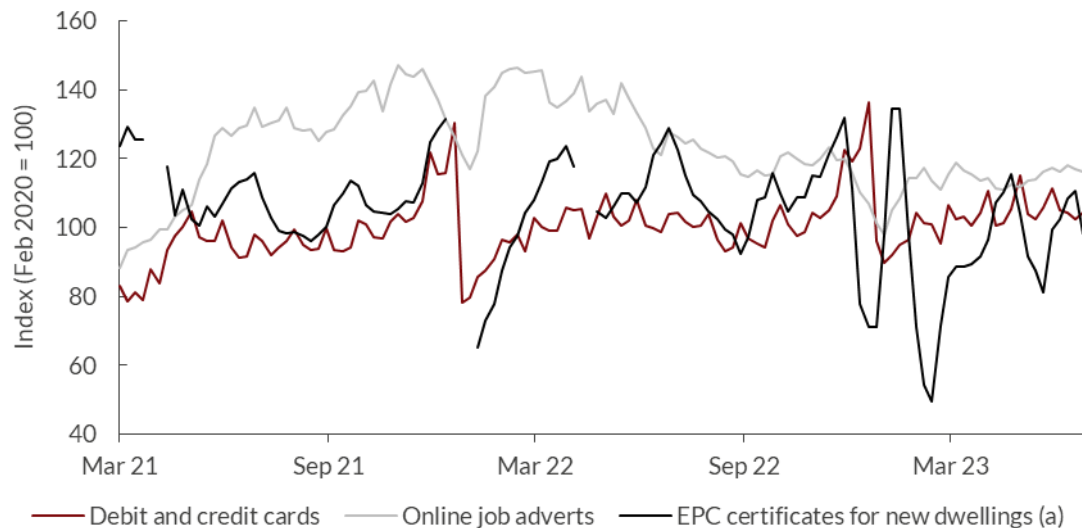
Notes: (a) England and Wales. Debit and credit cards (CHAPSbased): Index February 2020 = 100, a backward looking seven-day rolling average, non-seasonally adjusted, nominal prices. Job adverts: Index February 2020 = 100, weekly average. EPC certificates: Index February 2020 = 100, four–week rolling average, adjusted for timing of holidays.

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

Figure 3 – Recent trends in PMIs
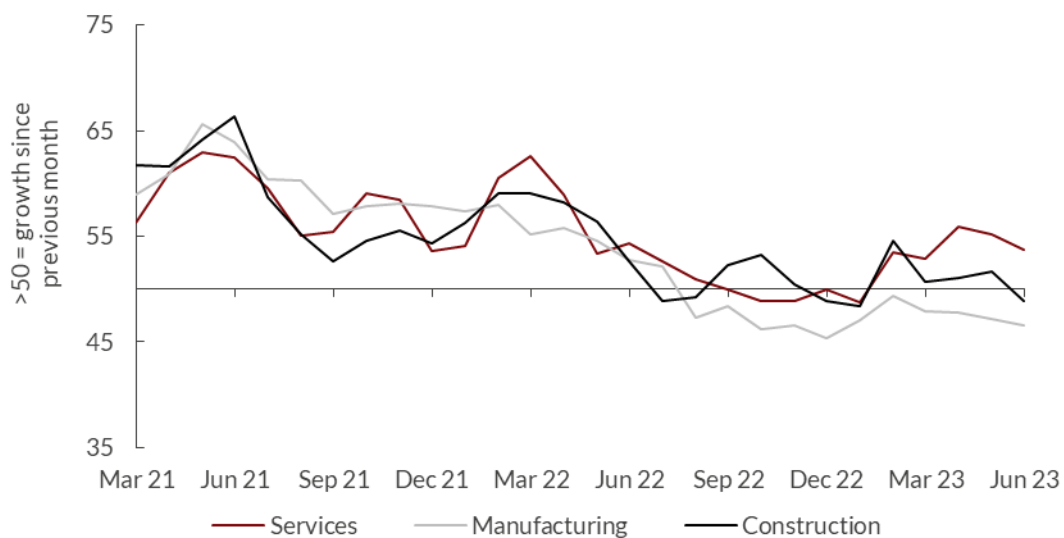
Sources: Refinitiv Datastream, S&P

News in latest ONS data

The monthly GDP data for May were slightly worse than we were expecting in June, falling by 0.1 per cent rather than remaining flat. GDP did not grow in the three months to May, 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

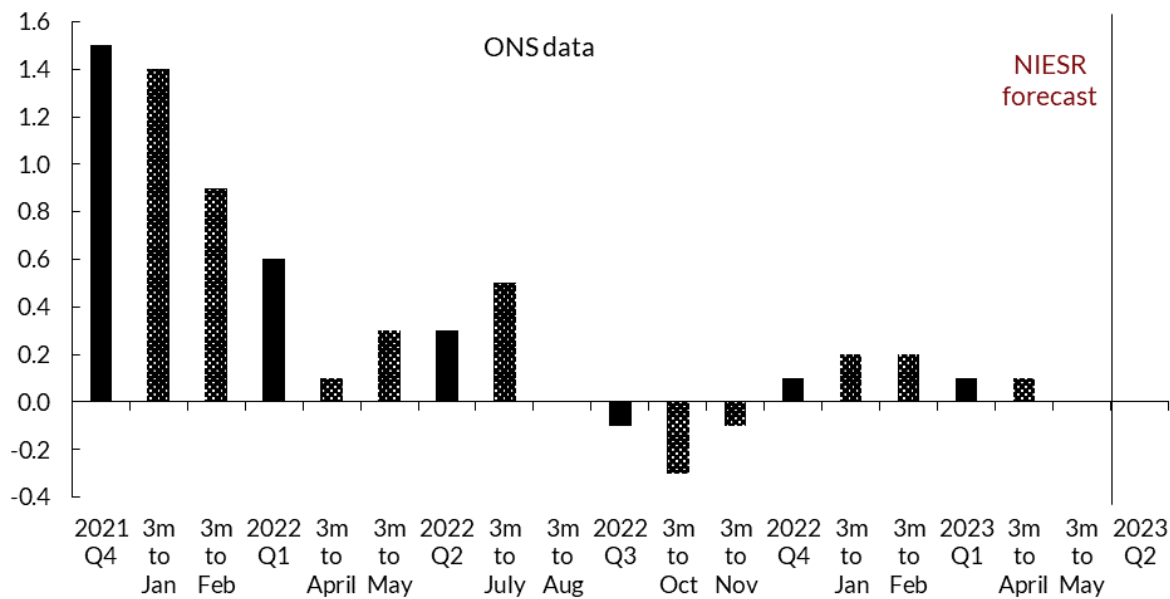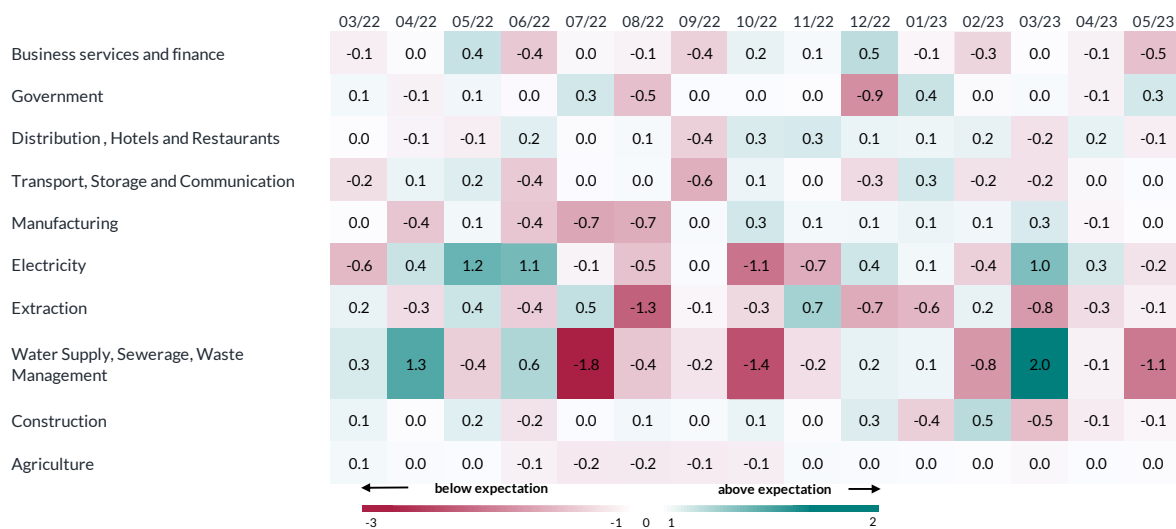|	03/22	04/22	05/22	06/22	07/22	08/22	09/22	10/22	11/22	12/22	01/23	02/23	03/23	04/23	05/23
Business services and finance	-0.1	0.0	0.4	-0.4	0.0	-0.1	-0.4	0.2	0.1	0.5	-0.1	-0.3	0.0	-0.1	-0.5
Government	0.1	-0.1	0.1	0.0	0.3	-0.5	0.0	0.0	0.0	-0.9	0.4	0.0	0.0	-0.1	0.3
Distribution , Hotels and Restaurants	0.0	-0.1	-0.1	0.2	0.0	0.1	-0.4	0.3	0.3	0.1	0.1	0.2	-0.2	0.2	-0.1
Transport, Storage and Communication	-0.2	0.1	0.2	-0.4	0.0	0.0	-0.6	0.1	0.0	-0.3	0.3	-0.2	-0.2	0.0	0.0
Manufacturing	0.0	-0.4	0.1	-0.4	-0.7	-0.7	0.0	0.3	0.1	0.1	0.1	0.1	0.3	-0.1	0.0
Electricity	-0.6	0.4	1.2	1.1	-0.1	-0.5	0.0	-1.1	-0.7	0.4	0.1	-0.4	1.0	0.3	-0.2
Extraction	0.2	-0.3	0.4	-0.4	0.5	-1.3	-0.1	-0.3	0.7	-0.7	-0.6	0.2	-0.8	-0.3	-0.1
Water Supply, Sewerage, Waste Management	0.3	1.3	-0.4	0.6	-1.8	-0.4	-0.2	-1.4	-0.2	0.2	0.1	-0.8	2.0	-0.1	-1.1
Construction	0.1	0.0	0.2	-0.2	0.0	0.1	0.0	0.1	0.0	0.3	-0.4	0.5	-0.5	-0.1	-0.1
Agriculture	0.1	0.0	0.0	-0.1	-0.2	-0.2	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0

← below expectation   above expectation →

-3   -1   0   1   2

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 remain flat in the second quarter of this year. As seen in Figure 6 below, we expect to see a fall in construction output offset by an increase in agricultural output.

**Figure 6** - Contributions to quarterly GDP growth (percentage points)
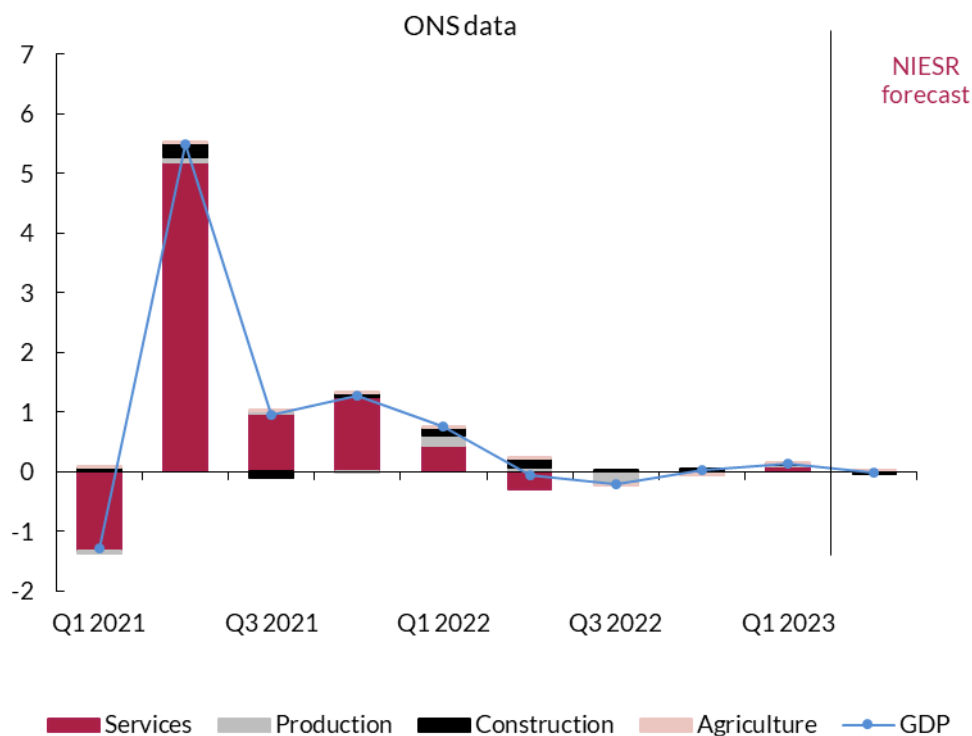
Services (80 per cent of GDP)

The survey balances point to a fourth 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 53.7 in June, falling from 55.2 in May. Surveyed businesses remained positive overall about business prospects in the coming months, though the index of positive sentiment was its lowest since January, with respondents citing worries about sustaining demand given cost of living pressures and the impact of higher interest rates.

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)

Survey range
ONS services output
● Forecast (Percentage change, 3 months on previous 3 months)
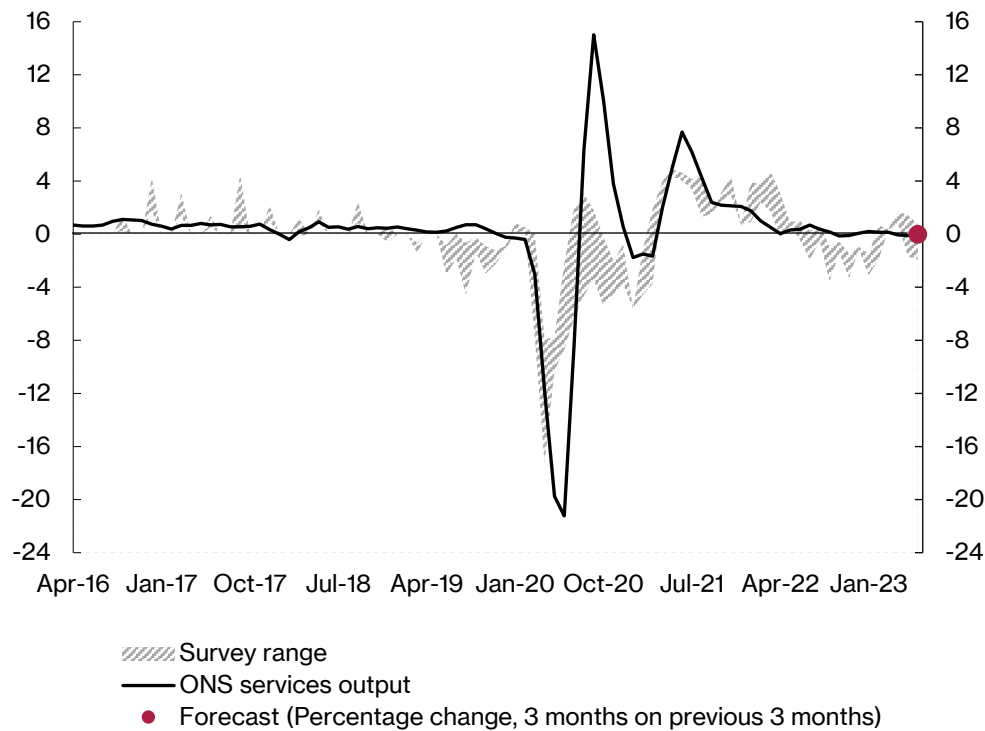
Note: The shaded swathe shows the highest and lowest values each month of a range of business survey balances that have been standardised so that they have the same mean and standard deviation as the quarterly growth of the ONS series.
Source: ONS, CBI, Markit, Bank of England Agents, EC, NIESR calculations.

Construction (6 per cent of GDP)

The S&P Global/CIPS UK Construction PMI survey registered a decrease to 48.9 in June from 51.6 in May, marking the first indicator of decreasing output in this sector (as noted by recording a figure below the neutral 50) in five months. Residential work decreased at its steepest pace since May 2020 in response to elevated interest rates. Infrastructure projects were the best-performing category in this sector.

Our forecast for the second quarter of 2023 sees a contraction of 0.3 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 46.5 in June from 47.1 in May – representing the eleventh consecutive month this sector has contracted. 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). That said, 53 per cent of respondents forecast growth over the coming 12 months.

Our forecast for the second quarter of 2023 sees output growing by 0.2 per cent in this sector.

The S&P Global/CIPS UK Composite PMI – which combines comparable services and manufacturing indices – fell to 52.8 in June from 54.0 in May. 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 3.3 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)
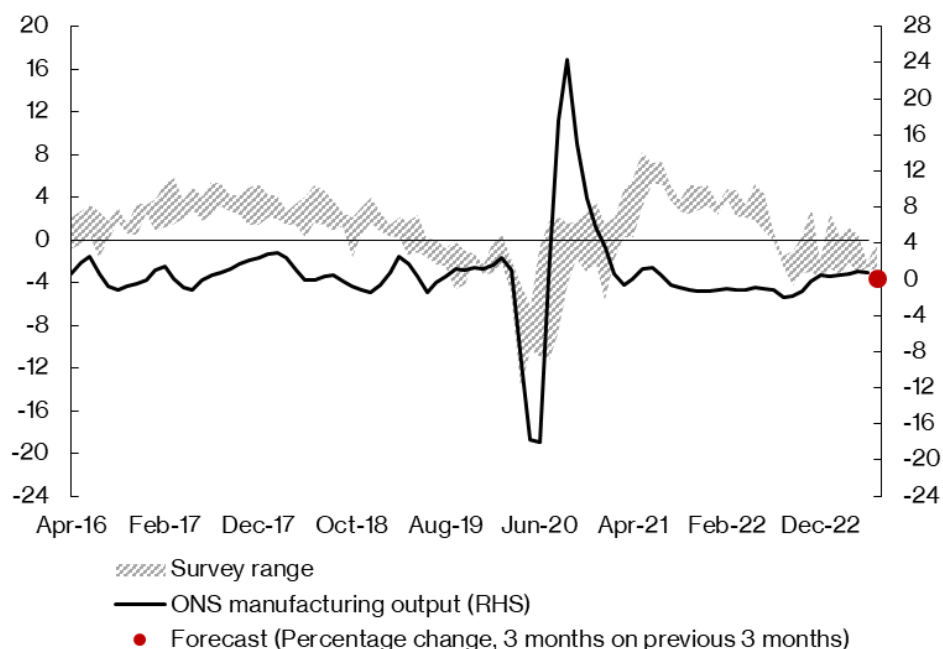
Note: The shaded swathe shows the highest and lowest values each month of a range of business survey balances that have been standardised so that they have the same mean and standard deviation as the quarterly growth of the ONS series.
Source: ONS, CBI, Markit, Bank of England Agents, EC, NIESR calculations.

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
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	88.3	104.8	104.4	105.2	108.6	79.5	115.2	104.4	105.3
Feb-23	100.5	99.4	105.7	94.1	88.1	104.6	104.3	105.3	106.4	81.3	113.8	107.1	105.4
Mar-23	100.3	98.9	105.5	94.1	87.2	103.6	105.1	106.1	109.2	78.9	116.1	106.9	105.4
Apr-23	100.5	99.2	105.6	94.0	88.3	104.5	104.9	105.9	110.0	77.0	115.7	105.9	105.5
May-23	100.4	99.2	105.0	94.7	87.5	104.7	104.3	105.6	107.8	77.2	113.8	105.7	105.6
Jun-23	100.4	99.2	105.4	94.7	87.7	104.9	104.4	105.7	107.2	77.5	114.6	105.7	105.7
Percentage change, 3 months on previous 3 months													
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	-0.6
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	0.1	0.5	-0.9	0.8	0.6	0.3	0.4	-0.3	-1.7	1.6	0.6	-0.4
Feb-23	0.2	0.1	0.8	-1.4	0.8	0.7	0.2	0.4	0.7	-4.9	0.8	0.8	-0.1
Mar-23	0.1	0.1	0.5	-0.5	0.1	0.4	0.1	0.7	0.0	-5.4	0.4	0.4	0.0
Apr-23	0.1	0.0	0.4	-0.4	-0.1	-0.2	0.3	0.9	-0.1	-4.5	-0.2	1.2	0.2
May-23	0.0	0.0	-0.1	0.3	-0.4	-0.1	0.4	0.8	0.4	-4.1	0.2	0.2	0.2
Jun-23	0.0	0.0	-0.2	0.2	0.0	0.3	0.0	0.2	0.3	-3.3	-0.3	-0.3	0.2
Percentage change, month on same month in previous year													
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	3.6
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	2.5
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	0.6
Jan-23	0.5	0.9	1.8	-1.3	0.9	2.9	-2.9	-2.3	-3.0	-11.9	-0.7	3.2	0.5
Feb-23	0.6	0.8	1.6	-0.6	-0.3	1.7	-2.7	-1.8	-5.3	-9.8	-1.7	5.8	0.0
Mar-23	0.3	0.4	1.4	-0.8	-0.2	1.2	-1.9	-1.1	-1.2	-12.8	-0.2	3.5	-0.3
Apr-23	0.5	0.7	1.3	0.1	0.0	2.0	-1.6	-0.6	-1.7	-12.4	-1.8	2.7	-0.3
May-23	-0.4	-0.1	-0.3	-0.6	-0.9	1.2	-2.3	-1.2	-4.2	-12.8	-0.7	0.2	-0.3
Jun-23	0.4	0.4	0.8	0.2	-0.5	1.9	-1.2	0.2	-3.8	-10.1	-1.6	2.9	-0.3
Percentage change, month on previous month													
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	0.2
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	-0.3
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	-0.5
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	-0.3
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	0.4	0.8	-0.1	1.6	0.7	1.1	-0.2	0.5	-1.9	-3.4	-0.6	-1.8	0.0
Feb-23	0.1	-0.1	0.4	-0.6	-0.2	-0.2	-0.1	0.1	-2.0	2.3	-1.2	2.6	0.2
Mar-23	-0.2	-0.4	-0.2	0.0	-1.0	-1.0	0.8	0.8	2.6	-3.0	2.0	-0.2	0.0
Apr-23	0.2	0.3	0.1	-0.1	1.3	0.9	-0.2	-0.2	0.7	-2.4	-0.3	-0.9	0.1
May-23	-0.1	0.0	-0.6	0.7	-0.9	0.2	-0.6	-0.3	-2.0	0.3	-1.6	-0.2	0.1
Jun-23	0.0	0.0	0.4	0.0	0.2	0.1	0.0	0.1	-0.5	0.4	0.7	0.0	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)
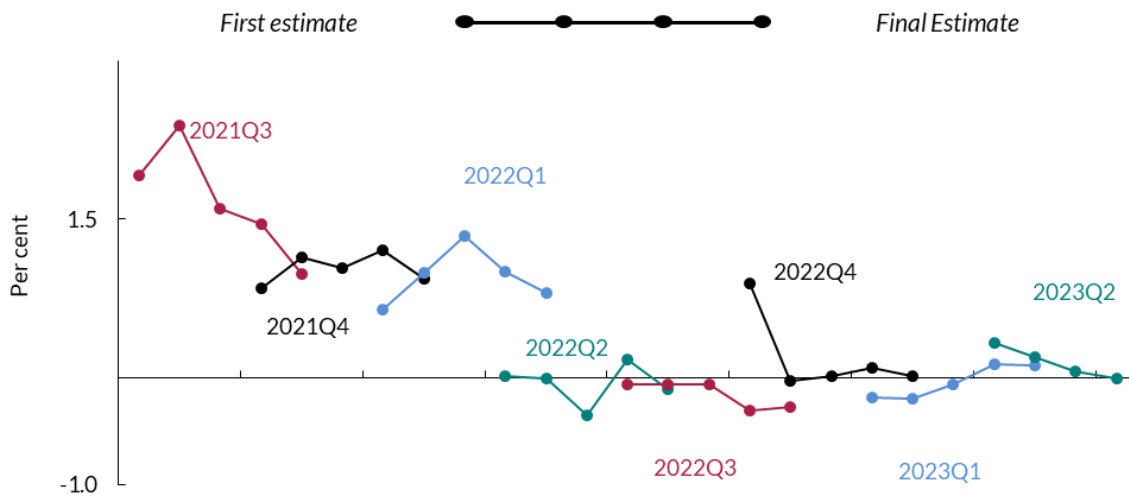
NIESR's short-term predictions of monthly GDP growth are based on bottom-up analysis of recent trends in the monthly sub-components of GDP. These predictions are constructed by aggregating statistical model forecasts of ten sub-components of GDP. The statistical models that have been developed make use 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 June 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	0.0	-0.1	0.3	0.6	-2.0	0.9
Outturn	0.0	0.0	0.4	0.8	-4.1	0.2

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:

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