

# NIESR

## Monthly GDP Tracker

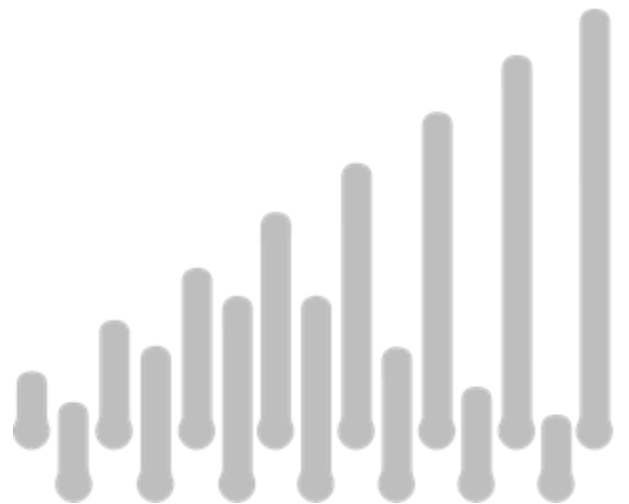
Busy GPs and recovering manufacturers may avert the start of recession

Rory Macqueen

13<sup>th</sup> July 2022

*“If April activity was more encouraging than the headline figure suggested – with strong consumer-facing services dragged down by the reduction in vaccinations – the opposite may be true of May. Headline growth of 0.5 per cent owed much to rising GP visits, while sectors like hospitality, retail and the arts all contracted, suggesting that rising prices may have eaten into discretionary household consumption. More encouragingly, manufacturing had its joint strongest month since November 2020, and construction recorded a seventh consecutive month of expansion. With plenty of room for revisions, it looks like touch and go as to whether or not the UK economy entered recession in the second quarter.”*

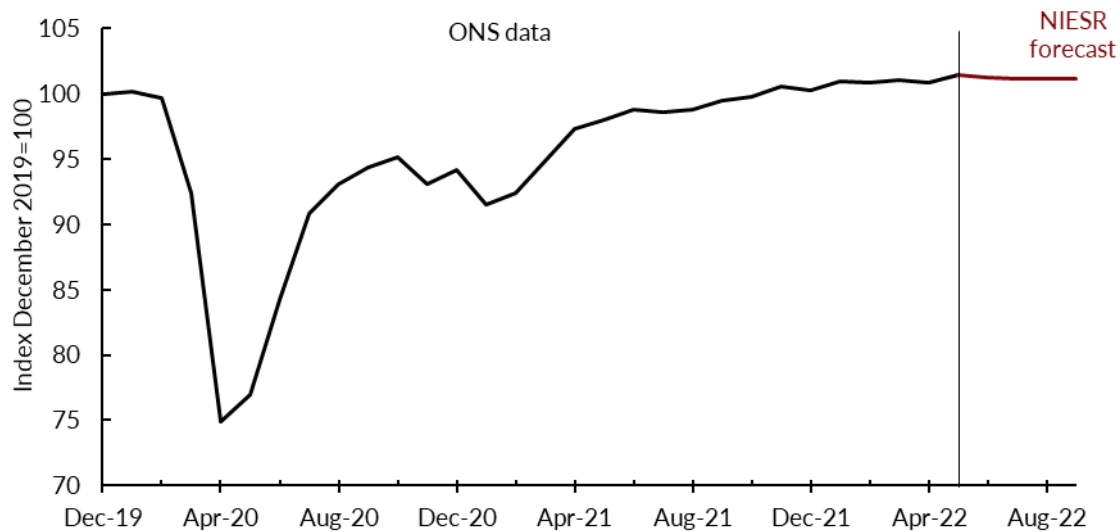
**Rory Macqueen**  
Principal Economist, NIESR



## Main points

- The normalisation of the economy after Covid-19 lockdowns continued to support growth in May, with GP appointments contributing positively, along with a recovery in manufacturing. It remains touch-and-go as to whether the economy contracted in the second quarter: the start of a recession if followed by a second contraction in the third quarter.
- Our final nowcast is for a fall of 0.2 per cent in June, giving growth of 0.2 per cent in the second quarter, though uncertainty remains and official data are subject to revision.
- Our first nowcast for the third quarter is for a contraction of 0.1 per cent, with growth likely to slow further as inflation drags on consumer demand.

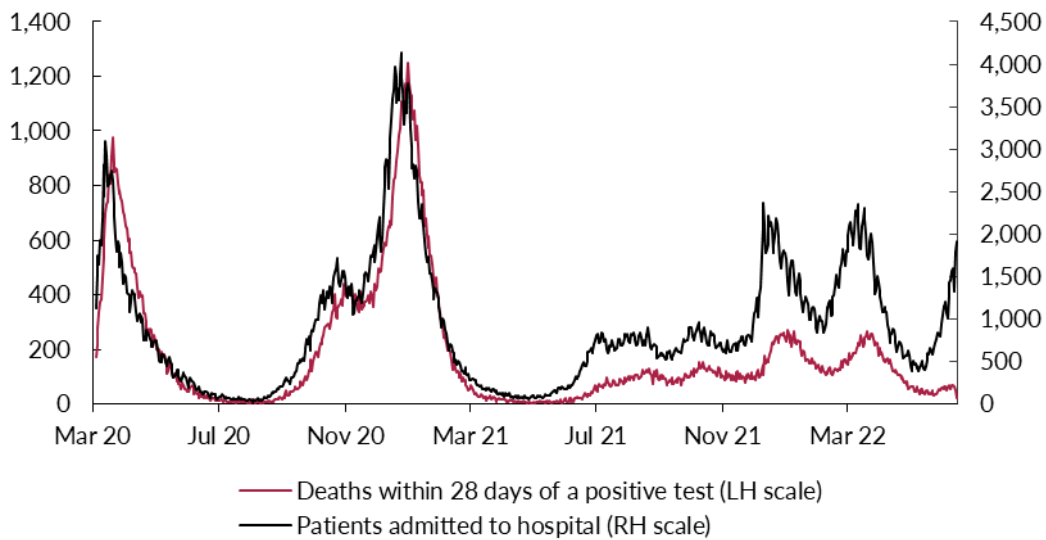
Figure 1 - UK GDP



### Economic setting

High and rising inflation has taken over as the defining challenge for UK households and businesses in 2022. While inflation rose between Summer 2021 and Winter 2022 thanks to supply chain disruptions, Russia's invasion of Ukraine in February accelerated the rise and the government has announced some elements of fiscal support. The degree to which rising input prices are passed on to consumers, and real wages fall as a result, has also become a source of increased industrial discontent, which looks likely to continue during the coming months. Covid-19 cases are rising again (see Figure 2.1) but, with each wave having a progressively smaller impact on GDP, this is likely to impact negatively on GDP only to a very limited degree. NIESR's Summer UK Economic Outlook will be published on 2<sup>nd</sup> August.

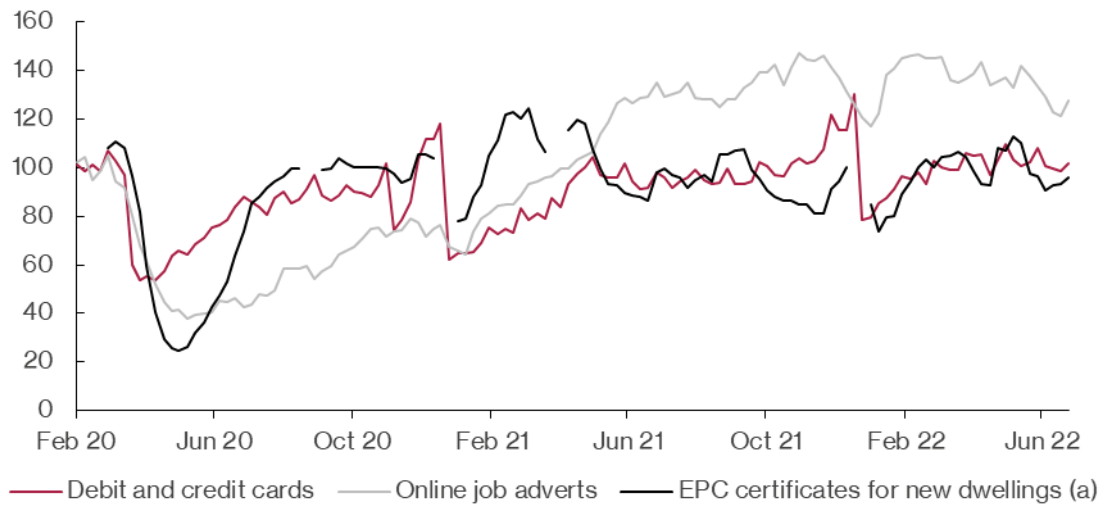
Figure 2.1 – England daily Covid-19 statistics



Source: Data.gov.uk. See [coronavirus.data.gov.uk](https://coronavirus.data.gov.uk) for further information.

High frequency indicators suggest that vacancies remain close to record levels. Card spending is at a similar level to pre-Covid.

**Figure 2.2 – Spending and hiring indicators**



Notes: (a) England and Wales. Debit and credit cards (CHAPS-based): 100 = February 2020, percentage change on a backward looking seven-day rolling average, non-seasonally adjusted, nominal prices. Job adverts: change from the same week in 2019. EPC certificates: change from the same week in 2019/2020, four-week rolling average, adjusted for timing of holidays.

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

**News in latest ONS data**

The monthly GDP data for May were stronger than we forecast in June, GDP growing by 0.5 per cent, rather than stagnating month-on-month, and growing by 0.4 per cent on a rolling three-month basis (see Figure 3).

**Figure 3 - UK GDP growth (3 months on previous 3 months, per cent)**

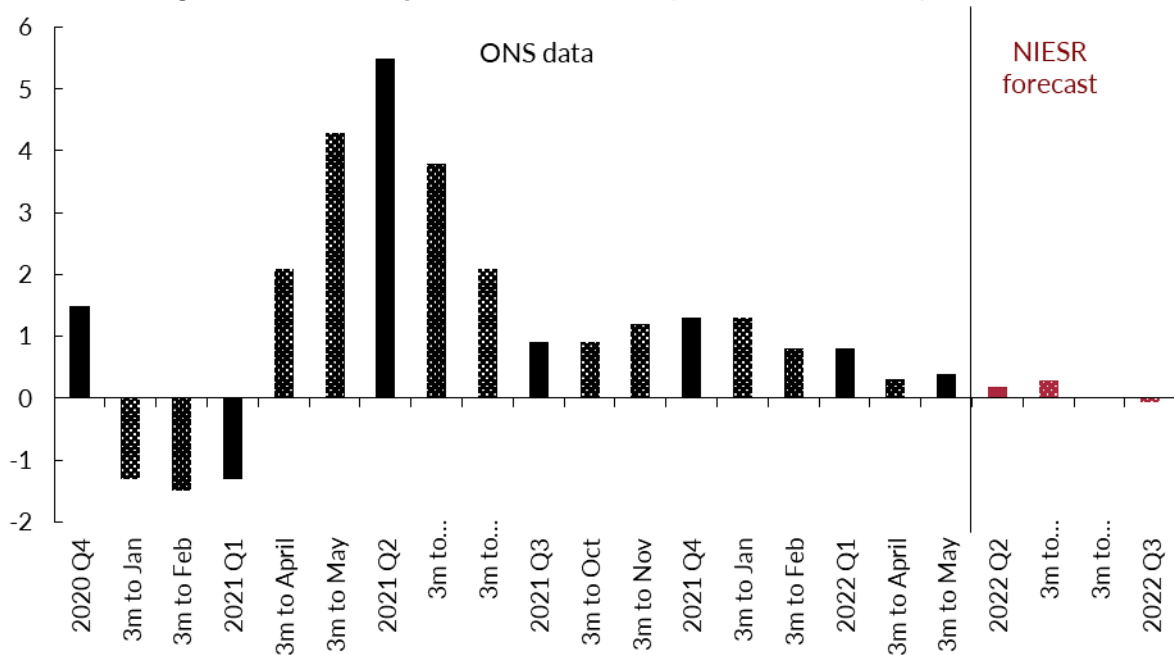


Figure 4 shows how our short-term forecasts for recent quarters have changed as new information has become available.

**Figure 4 - Evolution of the NIESR quarterly GDP forecast (3 months on previous 3 months, per cent)**

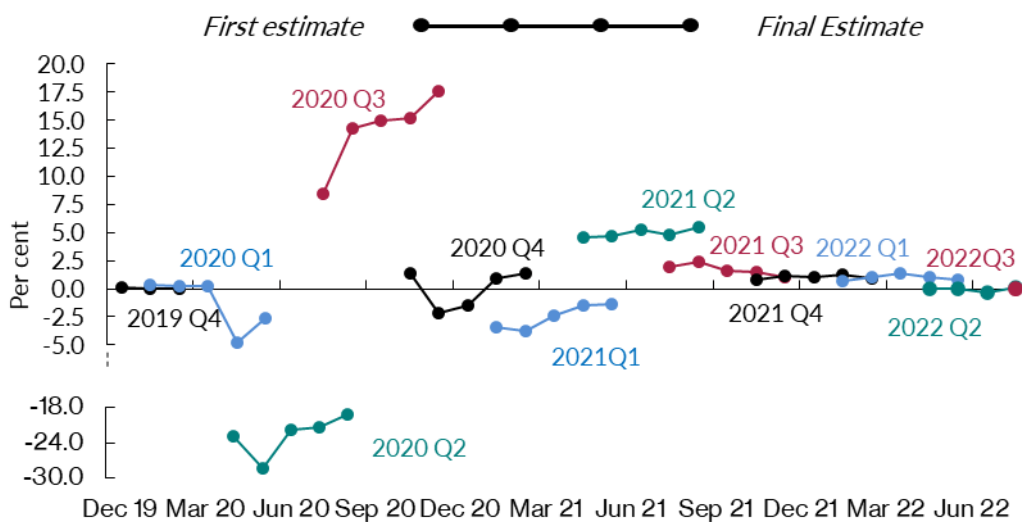
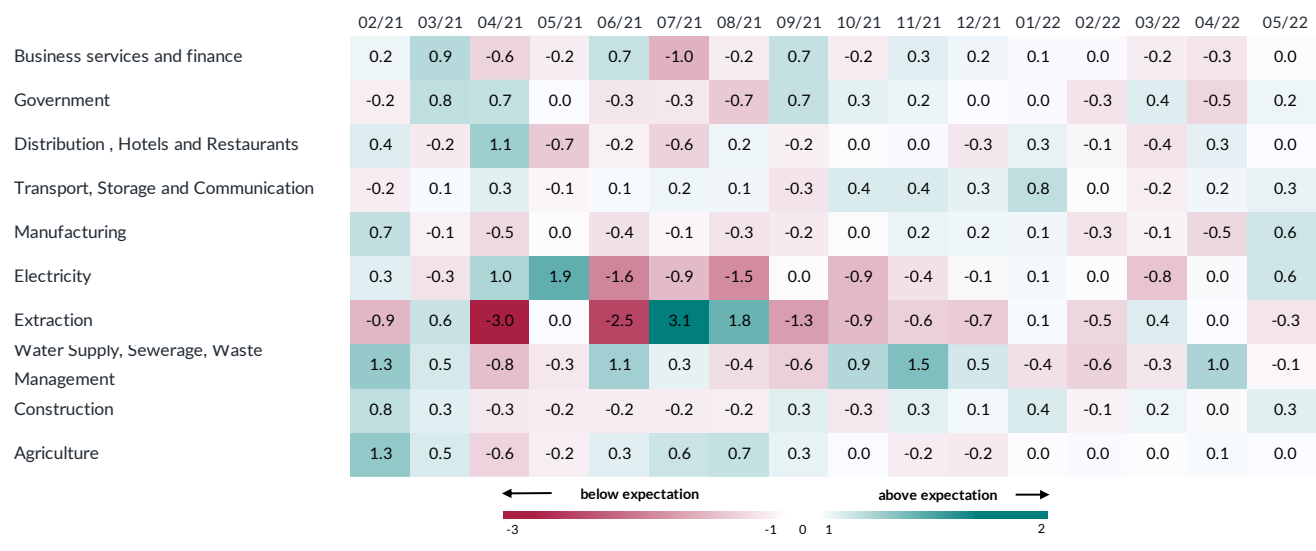


Figure 5 shows a heat map of the data surprises across sectors in the monthly data, relative to last month's GDP Tracker, highlighting the sectors where the surprises are large relative to the volatility of the output data. This month, there was a negative surprise in extraction (mining and quarrying) but positive surprises in manufacturing, electricity, construction and transport.

**Figure 5 – Surprises in monthly data**



Note: Cells show forecast errors as a fraction of the standard deviation of errors for each series. Green cells are greater than expected, red cells are less than expected.

Table 1 shows the growth in each sector for the three months to May, compared with the previous three months, against the forecast for each in our June GDP Tracker.

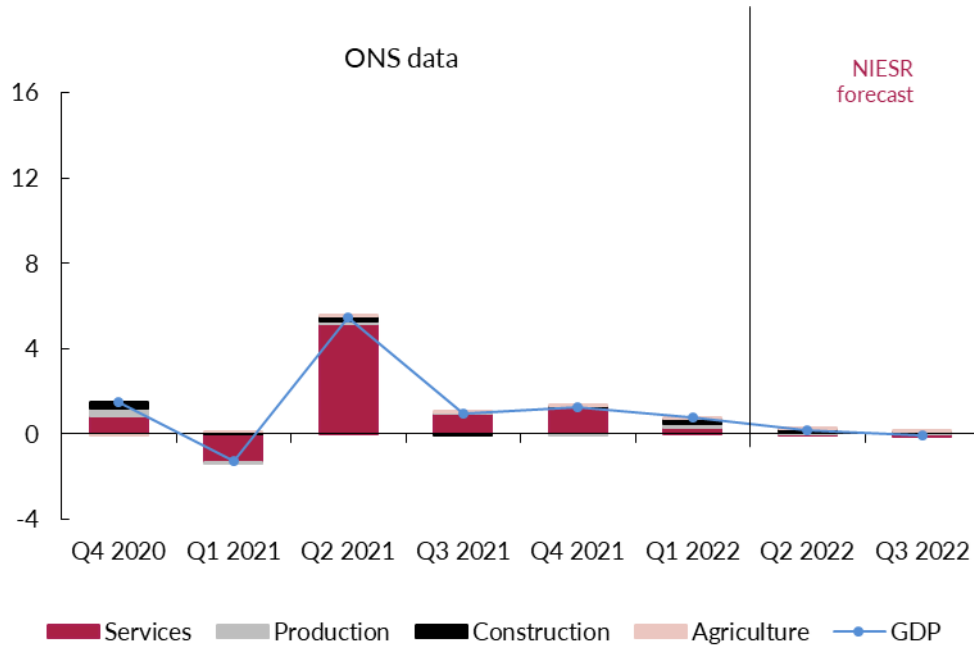
**Table 1 – 3-month-on-3-month growth to May**

	GDP	Index of Services	Index of Production	Manufacturing	Mining and Quarrying	Index of Construction
Forecast	-0.1	-0.2	-0.6	-1.0	2.5	2.2
Outturn	0.4	0.1	0.5	0.2	1.1	3.0

**Sectoral detail**

We forecast GDP to grow by 0.2 per cent in the second quarter of 2022 and decline by 0.1 per cent in the third quarter.

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

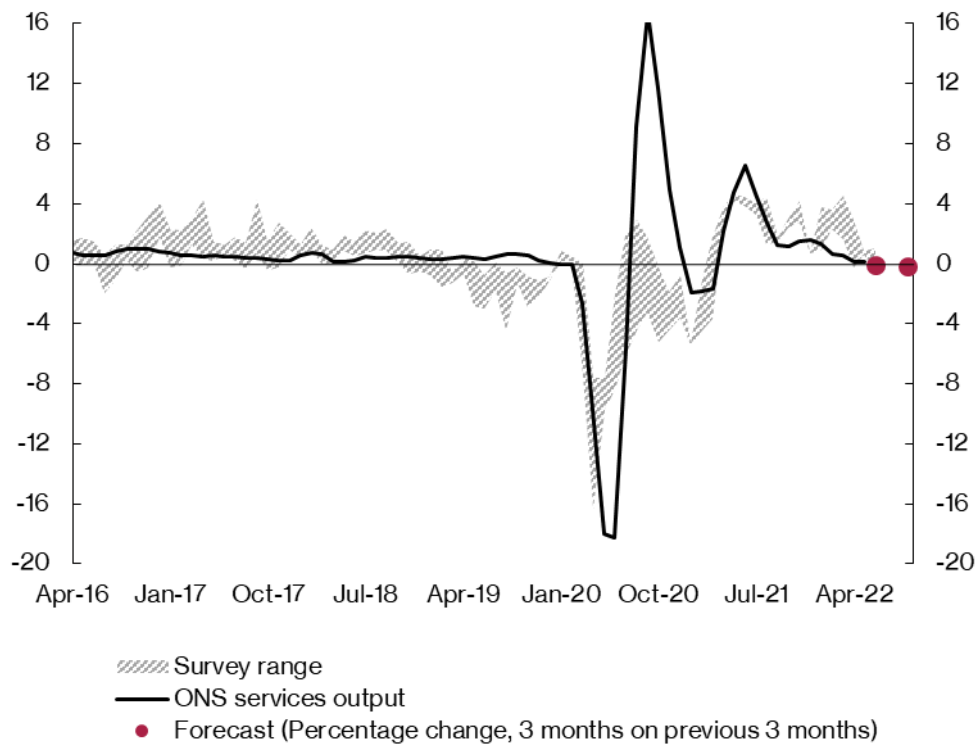


## Services (80 per cent of GDP)

The survey balances point to a weakening in the growth rate of activity in June, as shown by the swathe of survey indicators in figure 7. The headline business activity balance in the IHS Markit/CIPS UK services PMI registered 54.3 in June, up slightly from 53.4 in May. Input costs inflation remained close to May's survey record high. Internationally, the JPMorgan Global Services Business Activity Index reached a four-month high of 53.9.

Based on recent developments we expect service sector activity to fall by 0.1 per cent in the second quarter of 2022 and by 0.2 in the third 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.

## Production (14 per cent of GDP)

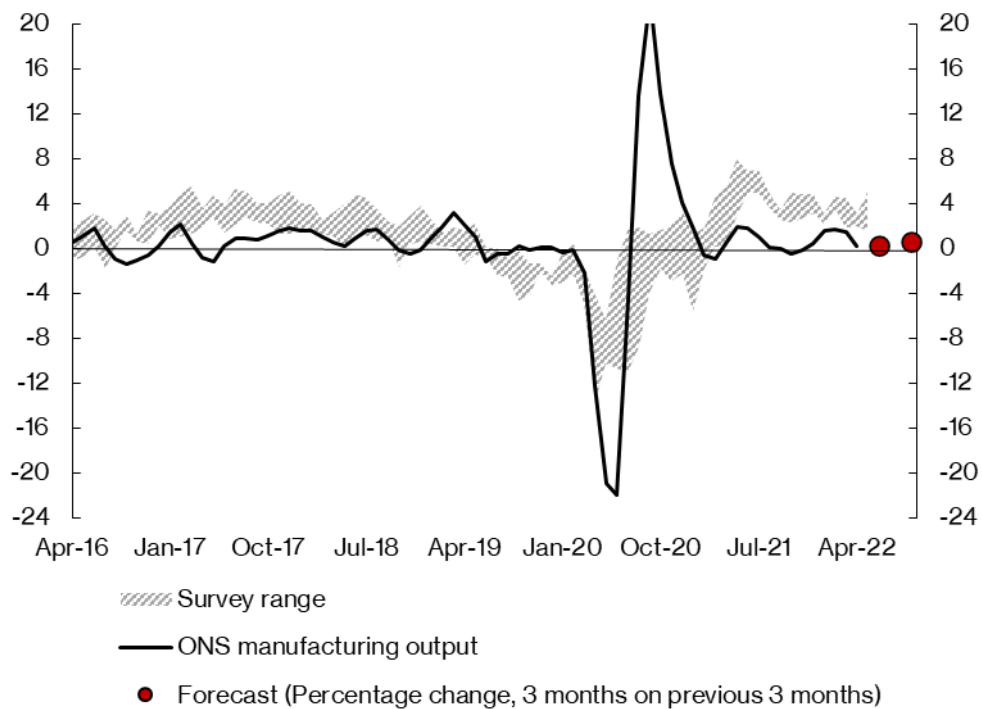


We forecast that production sector output will grow by 0.6 per cent in the second quarter of 2022 and 0.4 per cent in the third quarter, though output in this sector is volatile and difficult to predict with accuracy on a quarterly basis. The production sector comprises manufacturing; mining and quarrying; electricity gas, steam and air conditioning; water supply and sewerage; and oil and gas extraction. The largest of these sectors is manufacturing, accounting for 10 per cent of GDP.

### Manufacturing (10 per cent of GDP)

The IHS Markit/CIPS UK manufacturing PMI read 52.8 in June, down from 54.6 in May. The JPMorgan Global Manufacturing Output PMI reached a 22-month low of 52.2 in June. Our forecast for the second quarter of 2022 is for manufacturing to grow by 0.3 per cent (Figure 8) followed by 0.6 per cent in the third quarter.

**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.

### Mining and quarrying (1 per cent of GDP)

Mining and quarrying (extraction) is a small but erratic component of industrial production that can have an influence on overall GDP growth. We forecast declines of 1.0 per cent in the second quarter of 2022 and of 1.4 per cent in the third quarter.

### Construction (6 per cent of GDP)

The IHS Markit/CIPS construction PMI survey registered 52.6 in June, down from 56.4 in May. We expect construction output to grow by 2.8 per cent in the second quarter of 2022 and 0.5 per cent in the third quarter.

Table 2 - 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	339	277	193	408	136	102	15	6	13	61	7	
Jun-20	84.3	84.8	91.5	78.7	77.2	84.9	87.2	84.4	95.8	89.5	97.8	71.7	85.4	
Jul-20	90.9	91.3	92.9	89.6	90.9	89.4	92.2	91.0	101.0	82.6	99.0	84.4	87.5	
Aug-20	93.2	93.6	93.3	93.8	97.2	89.4	93.8	93.8	101.0	78.6	98.6	87.0	88.6	
Sep-20	94.5	94.8	95.1	97.3	94.1	89.9	94.6	95.0	101.4	76.0	99.3	89.9	89.1	
Oct-20	95.2	95.5	95.6	97.7	92.9	92.5	95.5	96.3	98.2	78.7	99.8	91.6	87.7	
Nov-20	93.2	92.7	95.2	95.6	82.8	91.8	96.5	98.2	97.4	75.4	99.6	92.2	87.0	
Dec-20	94.3	94.4	96.3	97.1	86.6	91.8	96.8	96.1	100.9	77.0	101.0	90.8	87.1	
Jan-21	91.6	91.3	96.0	91.4	78.9	91.5	94.6	95.0	101.9	78.4	101.2	89.1	88.5	
Feb-21	92.5	92.0	96.4	92.3	80.7	91.0	95.6	96.2	102.1	72.1	102.9	92.3	89.8	
Mar-21	95.0	94.6	98.0	97.7	82.4	92.7	96.7	97.5	101.0	75.0	103.6	96.0	90.9	
Apr-21	97.4	97.8	96.8	102.3	94.2	95.0	98.1	97.8	104.1	61.9	102.4	96.4	90.8	
May-21	98.1	98.5	96.6	102.7	99.3	94.7	97.1	98.3	108.8	64.5	102.3	96.3	91.9	
Jun-21	98.9	99.7	98.1	103.2	101.1	95.5	95.8	97.9	102.2	57.3	104.2	95.7	93.8	
Jul-21	98.7	99.5	97.2	103.4	100.3	96.7	96.6	96.2	99.9	70.1	104.3	94.8	95.5	
Aug-21	98.9	99.6	97.6	101.7	102.2	97.7	96.9	98.0	95.1	81.7	103.9	94.0	96.9	
Sep-21	99.6	100.5	99.1	103.6	101.7	97.5	96.4	97.7	94.1	79.8	103.3	95.4	96.9	
Oct-21	99.9	101.1	98.9	104.4	101.8	99.6	95.7	97.5	91.4	75.3	105.0	94.5	97.0	
Nov-21	100.7	101.8	99.9	105.0	101.9	101.3	96.7	98.5	92.7	73.1	107.4	95.9	96.9	
Dec-21	100.4	101.4	100.3	105.6	97.0	101.4	97.0	99.2	92.9	70.9	107.9	96.5	96.7	
Jan-22	101.1	102.0	99.7	105.2	99.5	104.6	97.9	100.2	94.3	72.4	106.5	97.0	97.0	
Feb-22	101.9	102.1	100.2	104.2	100.0	105.4	97.4	99.5	92.6	72.1	106.3	97.1	97.4	
Mar-22	101.2	102.0	100.2	104.6	98.6	105.3	97.7	99.8	93.5	73.5	106.6	99.1	97.6	
Apr-22	101.0	101.7	99.9	103.1	100.0	105.6	97.7	99.2	95.4	73.1	110.2	99.4	97.7	
May-22	101.5	102.1	100.2	103.5	99.7	106.9	98.5	100.5	95.8	71.1	109.9	100.9	97.9	
Jun-22	101.3	101.8	100.3	103.4	99.2	107.0	98.7	100.7	95.1	71.6	109.8	101.1	98.1	
Jul-22	101.2	101.7	100.0	103.1	99.3	107.4	98.7	100.8	94.7	71.6	110.1	100.9	98.3	
Aug-22	101.2	101.7	100.1	102.9	99.1	107.9	98.6	100.6	95.0	70.8	110.3	100.9	98.3	
Sep-22	101.2	101.1	100.2	102.8	99.0	107.7	98.9	100.8	95.7	70.4	110.5	101.0	98.4	
Percentage change, 3 months on previous 3 months														
Jun-20	-19.2	-18.2	-9.9	-23.2	-34.3	-16.4	-17.6	-22.0	-8.0	-2.4	-5.8	-35.6	-15.1	
Jul-20	-5.6	-5.6	-4.7	-7.9	-3.9	-6.9	-3.1	-4.4	-0.6	2.9	-0.6	-11.1	-7.7	
Aug-20	9.8	9.1	1.1	12.1	36.5	4.3	11.2	13.6	7.0	5.6	4.2	18.7	-0.7	
Sep-20	17.9	16.7	4.7	25.3	50.7	10.6	17.1	22.5	10.4	-3.6	5.5	41.6	-4.0	
Oct-20	12.2	11.7	4.1	19.7	25.5	7.1	10.1	13.8	5.0	-7.2	3.1	24.7	2.6	
Nov-20	5.4	4.9	3.0	10.9	1.7	4.0	4.9	7.5	-0.3	-8.2	1.0	12.6	0.5	
Dec-20	1.5	1.0	2.1	3.5	-7.1	2.8	2.7	4.1	-2.3	-2.6	1.1	5.1	-1.3	
Jan-21	-1.3	-1.9	1.2	-1.6	-12.6	1.2	1.2	1.7	-0.1	-1.9	1.3	1.3	-1.1	
Feb-21	-1.6	-1.9	1.0	-3.4	-8.7	0.0	0.0	-0.5	2.7	-2.0	2.1	-0.6	0.6	
Mar-21	-1.3	-1.7	1.1	-3.1	-7.7	-0.3	-0.3	-0.9	2.9	-3.3	2.4	1.0	2.8	
Apr-21	2.1	2.2	1.3	2.9	3.6	1.5	1.5	0.5	2.3	-8.7	2.4	4.6	3.4	
May-21	4.3	4.8	0.9	7.8	12.1	3.0	1.2	1.9	3.0	-10.7	1.0	6.0	3.1	
Jun-21	5.5	6.5	0.4	9.5	21.7	3.8	0.7	1.8	3.3	-17.8	0.4	4.0	2.7	
Jul-21	3.8	4.7	0.2	5.8	16.9	2.9	0.4	1.0	0.9	-8.2	0.7	0.8	3.6	
Aug-21	2.1	2.7	0.5	1.9	10.0	2.7	-0.2	0.2	-5.6	3.8	1.4	-1.4	4.6	
Sep-21	1.0	1.2	0.8	0.2	3.3	2.3	0.3	0.0	-8.6	26.1	0.9	-1.5	4.6	
Oct-21	1.3	1.3	0.1	1.7	1.7	2.8	-0.2	-0.4	-9.5	23.4	0.4	-1.0	3.4	
Nov-21	1.2	1.5	1.7	1.5	0.6	2.9	-0.2	-0.1	-6.1	9.1	1.0	0.4	1.6	
Dec-21	1.3	1.6	1.8	2.0	-1.2	3.6	-0.2	0.4	-3.9	-5.3	2.8	1.0	0.4	
Jan-22	1.3	1.3	1.5	2.0	-2.4	4.2	0.9	1.6	-0.2	-8.6	3.2	1.9	-0.1	
Feb-22	0.8	0.7	0.8	0.6	-2.9	4.4	1.2	1.8	1.3	-5.6	1.8	1.7	0.1	
Mar-22	0.8	0.6	0.3	-0.3	-0.9	4.3	1.2	1.5	1.9	-0.6	0.3	2.2	0.5	
Apr-22	0.3	0.2	0.1	-1.2	0.1	3.0	0.4	0.2	1.3	1.1	0.8	2.1	0.7	
May-22	0.4	0.0	-0.0	-1.2	0.6	2.0	0.5	1.0	0.2	1.0	1.1	1.9	0.7	
Jun-22	0.2	-0.1	0.1	-1.3	0.3	1.3	0.4	0.3	1.4	-1.0	2.7	2.8	0.6	
Jul-22	0.3	0.0	0.1	-0.6	-0.1	1.5	1.1	1.2	0.7	-2.0	1.6	2.5	0.5	
Aug-22	0.0	-0.2	0.0	-0.5	-0.2	1.4	0.7	0.9	0.0	-1.7	0.8	1.2	0.5	
Sep-22	-0.1	-0.2	0.0	-0.4	-0.5	1.1	0.4	0.6	-0.3	-1.4	0.3	0.5	0.4	
Percentage change, month on same month in previous year														
Jun-20	-15.1	-15.1	-8.2	-21.4	-23.0	-15.1	-12.4	-15.5	-6.3	-0.7	-3.6	-29.7	-11.1	
Jul-20	-8.4	-9.0	-7.4	-10.4	-9.4	-11.5	-7.7	-8.3	0.5	-11.9	-1.5	-15.9	-14.0	
Aug-20	-7.0	-6.8	-7.3	-6.7	-2.7	-10.6	-5.3	-5.6	2.6	-15.8	-1.8	-12.2	-16.5	
Sep-20	-5.8	-5.7	-5.3	-3.3	-6.2	-10.8	-5.0	-4.7	0.4	-20.8	-0.5	-8.5	-18.9	
Oct-20	-5.2	-5.2	-5.2	-3.0	-6.9	-8.2	-4.6	-4.4	-6.3	-11.8	0.6	-5.3	-20.9	
Nov-20	-6.8	-7.5	-4.6	-5.7	-16.9	-7.8	-2.8	-1.3	-8.1	-14.2	0.4	-5.7	-20.5	
Dec-20	-5.8	-6.1	-4.0	-4.5	-13.3	-7.9	-2.8	-2.7	-2.9	-9.2	1.9	-7.0	-16.5	
Jan-21	-8.7	-9.3	-4.5	-10.7	-21.6	-7.6	-4.0	-4.8	1.6	-10.4	0.9	-8.7	-14.8	
Feb-21	-7.3	-8.2	-3.7	-8.7	-19.1	-8.4	-3.4	-4.0	3.0	-16.0	3.8	-4.7	-11.0	
Mar-21	2.7	2.5	0.4	10.4	-2.3	-1.0	3.8	5.0	1.8	-7.4	3.9	4.3	-4.9	
Apr-21	29.9	27.3	9.1	41.3	82.6	19.2	30.0	41.7	16.2	-19.9	11.5	80.0	82.6	
May-21	27.4	26.1	9.2	40.7	70.0	19.0	23.7	30.9	21.7	-18.6	11.1	62.5	84	
Jun-21	17.3	17.6	7.2	31.1	31.0	12.5	9.9	16.0	6.7	-36.0	6.5	33.5	8.6	
Jul-21	9.0	9.0	4.6	15.4	10.3	8.3	4.6	7.9	-2.1	-15.1	5.8	12.3	9.1	
Aug-21	6.1	6.4	4.6	8.4	5.1	9.3	3.3	4.5	-5.8	3.9	5.2	8.1	9.4	
Sep-21	5.4	6.0	4.2	6.5	8.1	8.5	1.9	2.8	-7.2	5.0	4.0	6.0	8.8	
Oct-21	4.9	5.9	3.5	6.9	9.6	7.7	0.2	1.2	-6.9	-4.3	5.2	3.1	10.6	
Nov-21	8.0	9.8	4.9	9.8	23.1	10.3	0.2	0.3	-4.8	-3.1	7.8	4.0	11.4	
Dec-21	6.5	7.4	4.2	8.8	12.0	10.5	0.9	2.5	-7.9	-7.9	6.8	6.9	11.0	
Jan-22	10.4	11.7	3.9	15.1	26.1	14.3	3.3	5.5	-7.5	-5.2	5.5	8.9	9.6	
Feb-22	9.9	10.9	3.5	12.9	23.9	15.9	1.9	3.4	-7.3	0.0	3.9	5.1	8.5	
Mar-22	6.5	7.8	2.2	7.1	19.7	13.6	1.0	2.4	-7.4	-2.0	3.9	3.3	7.4	
Apr-22	3.7	4.0	3.2	0.8	6.2	11.2	1.7	1.4	-8.4	18.1	7.6	3.1	7.6	
May-22	3.5	3.7	3.7	0.8	0.4	12.9	1.4	2.2	-11.9	10.2	7.4	4.7	6.5	
Jun-22	2.5	2.1	2.2	0.2	-1.9	12.0	3.0	2.9	-7.0	25.0	5.4	5.6	4.6	
Jul-22	2.5	2.2	2.9	-0.3	-1.0	11.1	2.2	2.6	-4.3	2.1	5.4	6.4	2.9	
Aug-22	2.3	2.1	2.5	1.2	-3.0	10.5	1.7	2.7	-0.1	-33.3	5.2	7.4	1.5	
Sep-22	1.6	1.2	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.

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.

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.

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 2020Q2 when our GDP tracker in May pointed to growth of -22.8 per cent, 2.4 points lower than the ONS first estimate of GDP growth.

**Table 3 - Forecast Error Analysis: Quarterly GDP growth (%)**

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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