

# NIESR

## Monthly GDP Tracker

Activity nears pre-Covid levels but faces headwinds

Rory Macqueen

November 2021

### Main points

- With growth slowing in the third quarter, but September stronger than expected, we now forecast economic activity to increase by 1.1 per cent in the last quarter of 2021, including month-on-month growth of 0.4 per cent in October.
- The end of the post-Covid bounce in consumer services has removed one source of upward momentum but goods and labour shortages have taken over as a brake on growth. Most of September's 0.6 per cent growth came from the largely nonmarket healthcare sector.
- Government estimates of the present level of GDP differ. The output-based approach, as used in NIESR's GDP Tracker, suggests GDP in the third quarter of 2021 was 1 per cent below its pre-Covid level, while the expenditure approach suggests the shortfall is 2 per cent.<sup>1</sup> Using the output-based measure we expect monthly GDP to return to its pre-Covid February 2020 level in November this year.

---

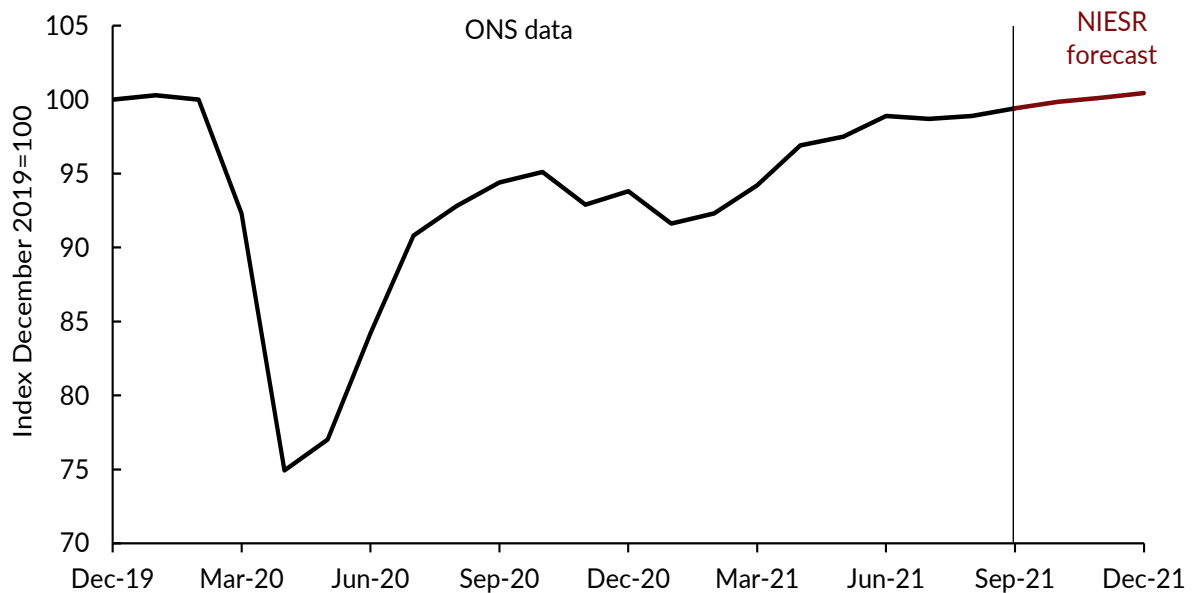
<sup>1</sup> See 'Note on data', page 10

“Of the 0.6 per cent monthly growth 0.5 percentage points was attributed to the health sector, largely due to the return of face-to-face GP appointments. The post-Covid bounce seems to be nearing its end, with hospitality returning to normal growth rates in September after a bumper August. Wholesale and retail activity shrank for a fifth consecutive month and gas distribution for the fourth, which may suggest supply constraints or the unwinding of unusually high demand earlier in the year. Overall growth is likely to slow further in the fourth quarter but will benefit if public confidence in keeping Covid-19 under control has enabled a return to growth in consumer-facing services sectors.”

**Rory Macqueen**

**Principal Economist - Macroeconomic Modelling and Forecasting**

**Figure 1 - UK GDP**



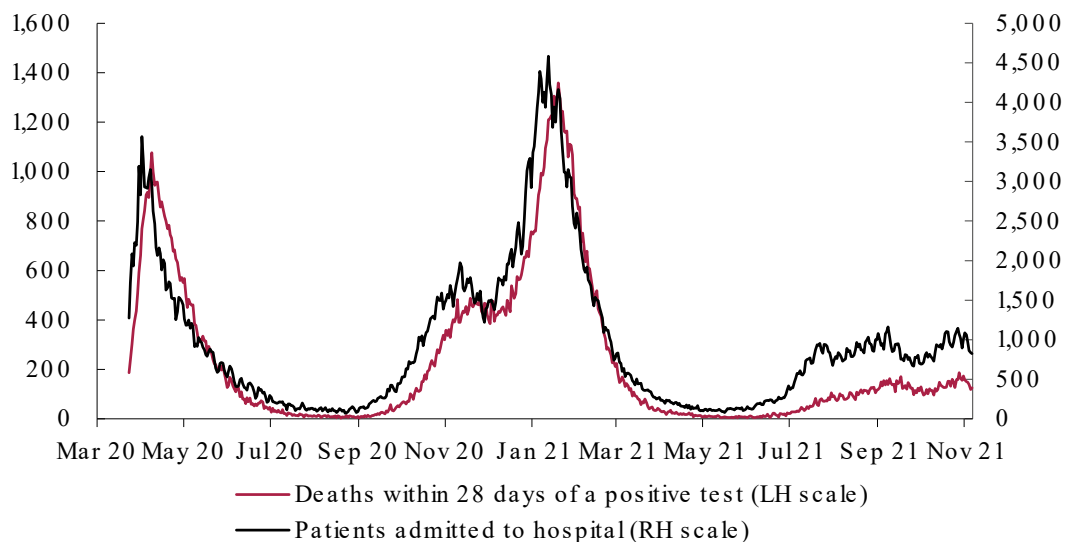
## Economic setting

The slowdown in growth during 2021 began as the reopening mini-boom ended but during the summer came to be dominated by supply constraints and energy price rises. Labour shortages, most notably of HGV drivers, had knock-on effects for not only the transport sector but also every other industry that relies on it. Uncertainty about the true level of activity in the economy persists, with output-based measures (on which our GDP Tracker is based) persisting in giving stronger readings than those comprising the components of expenditure (consumption, investment, trade).

NIESR's [Autumn UK Economic Outlook](#), published on Tuesday, revised down our forecasts for growth over the coming year, while revising up the outlook for inflation. We expect above-target inflation to weigh on demand, offsetting much of the nominal wage gains enjoyed by those in work. Following the cut to Universal Credit and announcement of an effective 2.5 per cent rise in payroll taxes, fiscal policy is likely to provide a drag to growth at a time of constrained real incomes and rising interest rates. Some optimism continues to be generated by the fact that the furlough scheme seems to have come to an end without generating a large rise in unemployment.

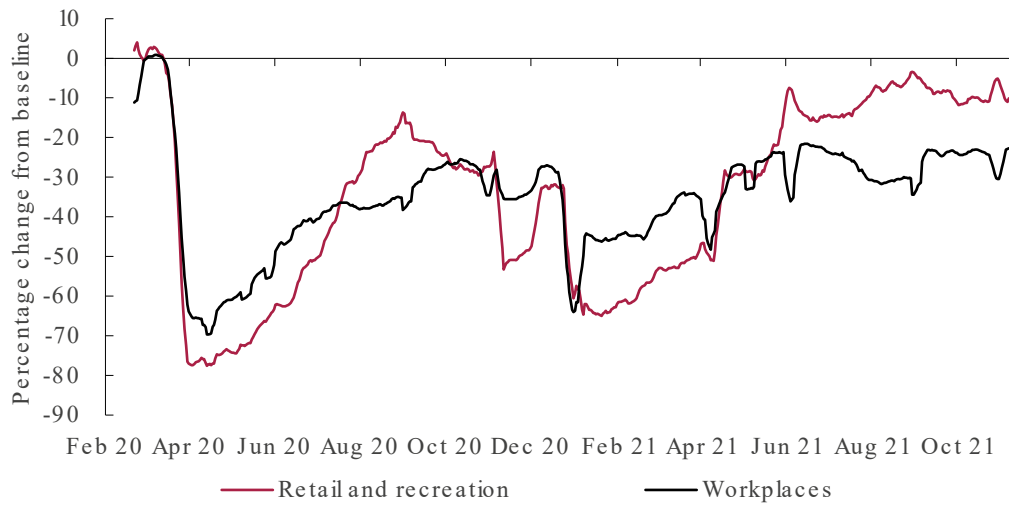
The short-term economic outlook is still likely to be dominated by Covid-19 and how the UK copes with the health and economic fallout from it over the winter months.

Figure 2.1 – UK daily Covid-19 statistics



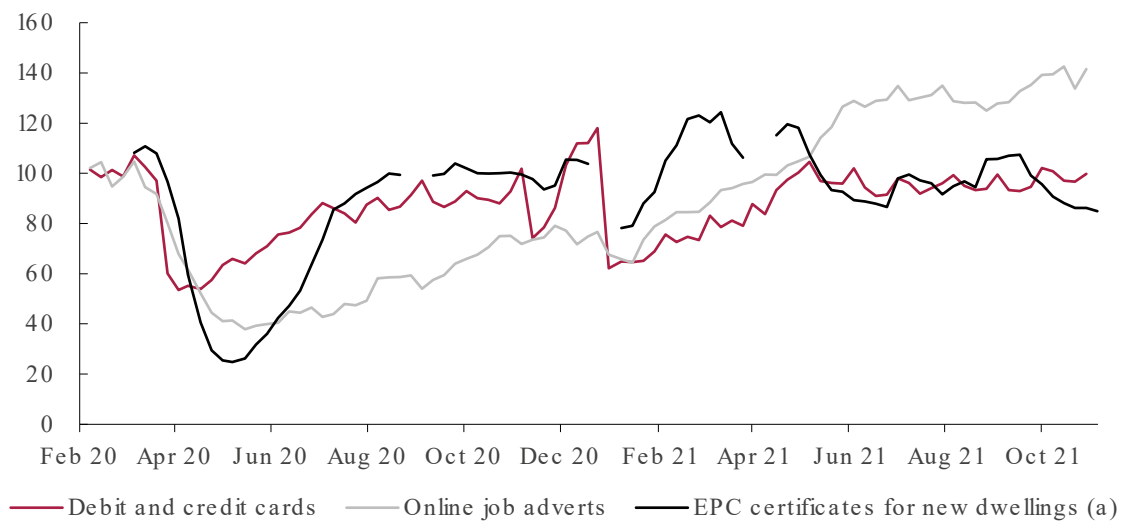
Source: Data.gov.uk. See [coronavirus.data.gov.uk](https://coronavirus.data.gov.uk) for further information.

**Figure 2.2 – Google Mobility Indicators**



Source: Google, NIESR. Note: Baseline is median value for the day of the week Jan 3 - Feb 6 2020. Seven-day rolling average.

**Figure 2.3 – Spending and hiring indicators.**

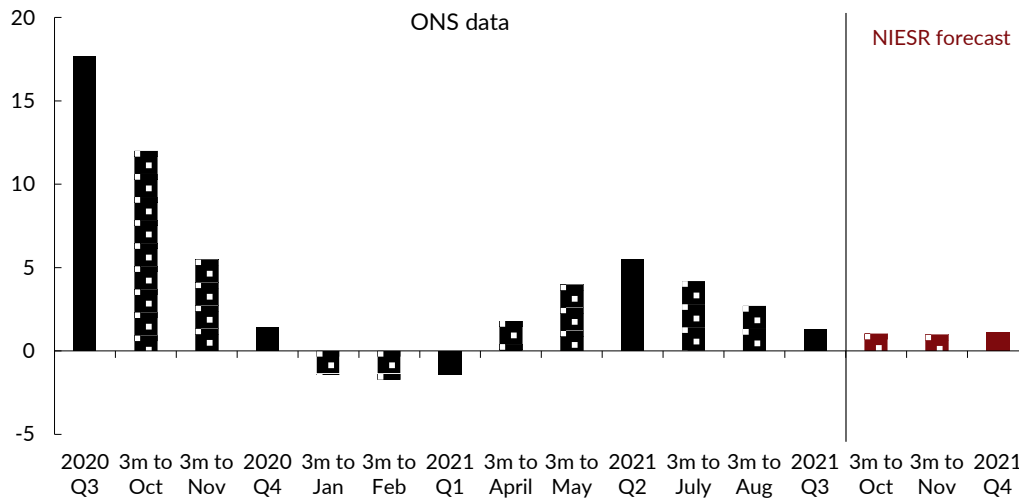


Notes: (a) England and Wales. Debit and credit cards (CHAPS-based): 100 = February 2020, percentage change on a backward looking seven-day rolling average, non-seasonally adjusted, nominal prices. Job adverts: change from the same week in 2019. EPC certificates: change from the same week in 2019/2020,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

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

High frequency indicators suggest that hiring remains at record levels, partly due to labour shortages in certain sectors. Card spending continues to show little change since the early summer while the construction sector in September may have reversed some of its recent output losses, though energy certificates for new dwellings have fallen again in recent weeks.

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



**News in latest ONS data**

The monthly GDP data for September were slightly stronger than we forecast in October, GDP growing by 0.6 per cent month-on-month instead of 0.4 per cent, but downward revisions to July and August mean that third quarter growth overall was weaker.

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)**

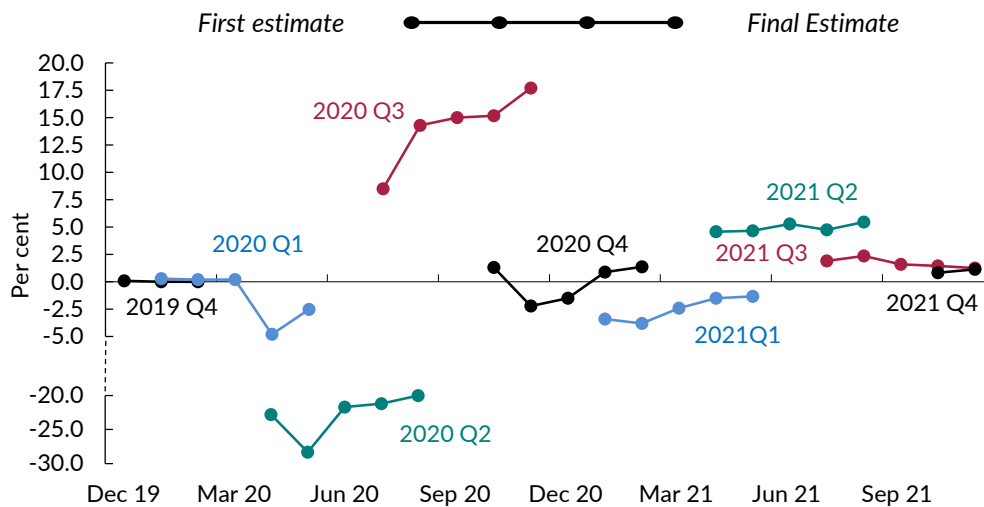
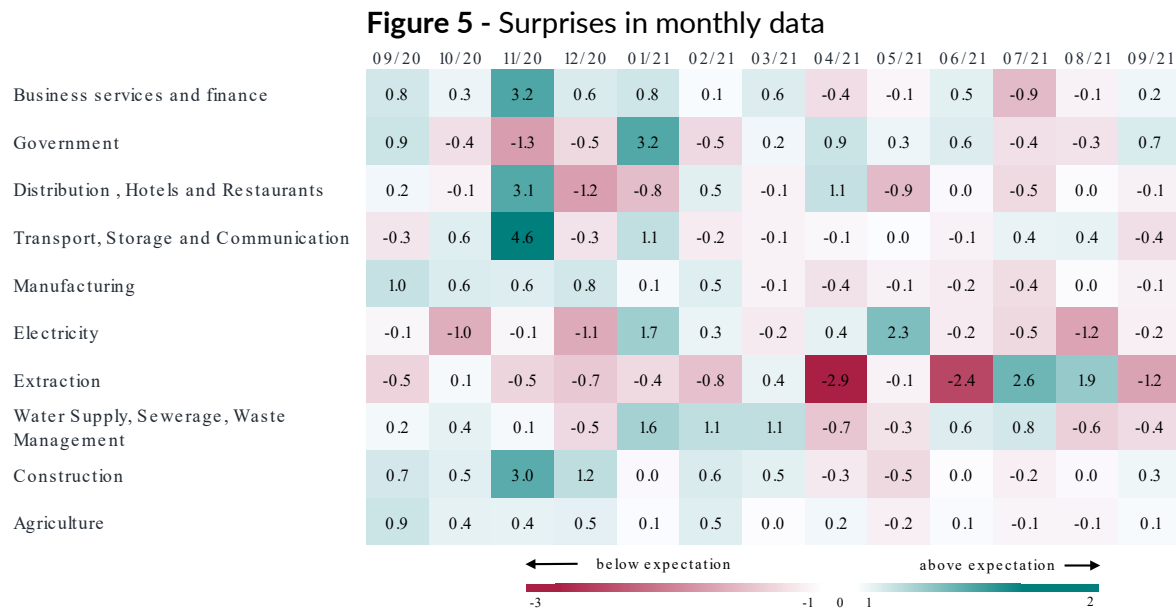


Figure 5 shows a heat map of the data surprises across sectors in the monthly data, relative to last month's GDP Tracker, highlighting the sectors where the surprises are large relative to the volatility of the output data. This month, there was a positive surprise in government and other services (which includes healthcare) and a negative surprise in extraction.

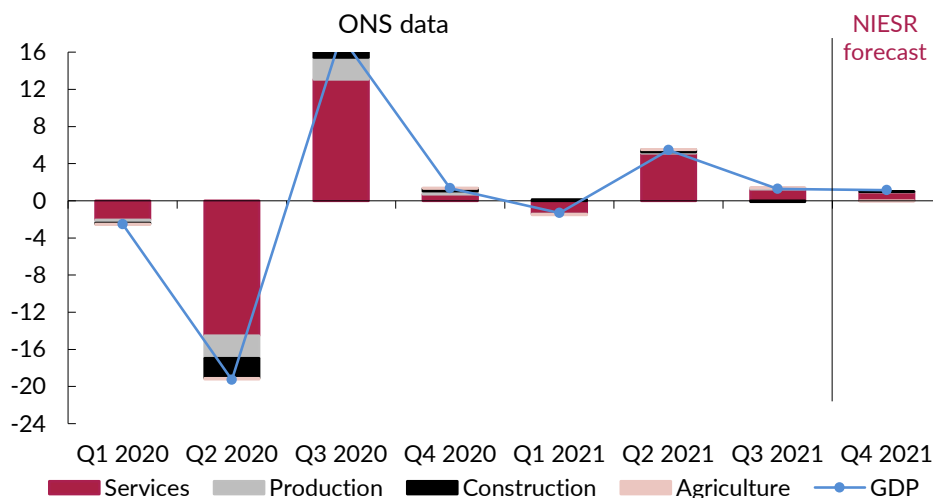


Note: Cells show forecast errors as a fraction of the standard deviation of errors for each series. Green cells are greater than expected, red cells are less than expected.

### Sectoral detail

The economy grew by 1.3 per cent in the three months to September compared with the previous three months: slightly more slowly than the 1.5 per cent in our October Tracker forecast (largely due to downward revisions to earlier months). This growth was mainly driven by post-lockdown growth in the hospitality, arts and recreation and human health sectors. We now forecast output to grow by 1.1 per cent in the fourth quarter of 2021.

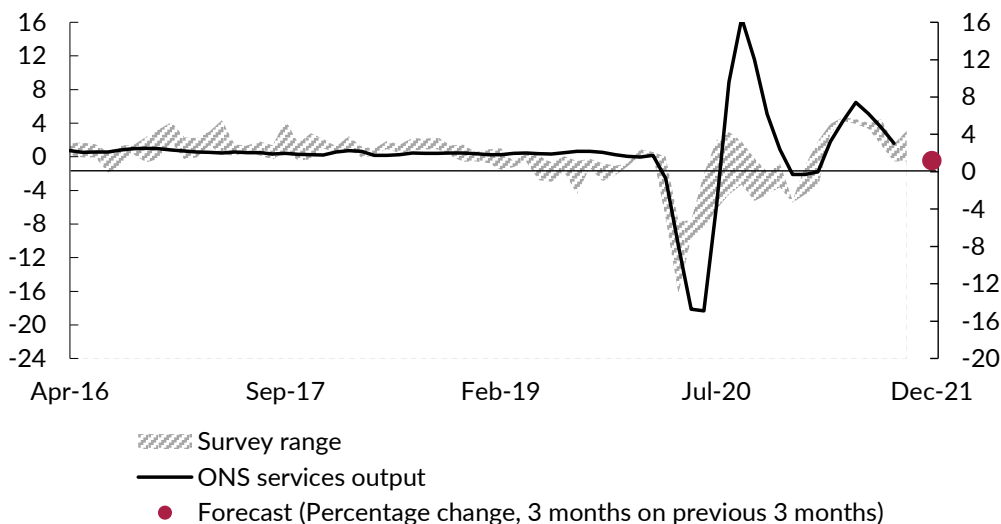
**Figure 6 - Contributions to quarterly GDP growth (percentage points)**



### Services (80 per cent of GDP)

According to the latest ONS data, the services sector grew by 1.6 per cent in the three months to September, slightly weaker than the 1.8 per cent we forecast a month ago. This largely reflects the reopening of hospitality and entertainment industries, as well as a rise in health-related activity e.g., GP appointments. Based on recent developments we expect service sector activity to grow by 1.2 per cent in the fourth quarter of 2021.

**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.

The survey balances point to little change in the growth rate of activity in October, 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 59.1 in October, up from 55.4 in September, and the fastest rise in activity in three months, though cost inflation was reported at its highest level for 25 years. Internationally, the JPMorgan Global Services Business Activity Index rose slightly in October, to 55.6 from 53.8.

### **Production (14 per cent of GDP)**

Production output grew by 0.8 per cent in the three months to September, exactly in line with the 0.8 per cent growth we forecast a month ago. The fastest growth was in mining and quarrying, due to the reopening of oilfields following planned maintenance. We forecast that production sector output will grow by 0.4 per cent in the fourth quarter of 2021, 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.

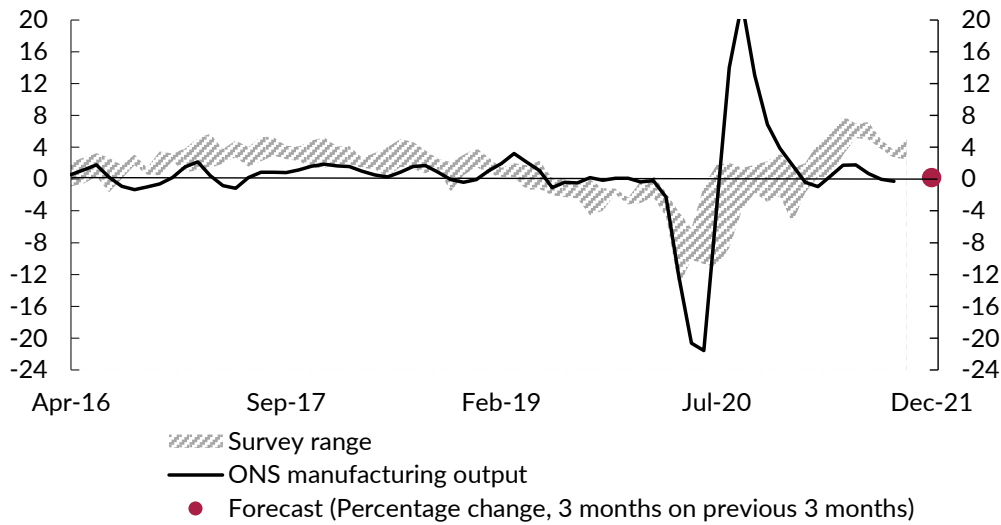
### **Manufacturing (10 per cent of GDP)**

Within production, output in the manufacturing sector contracted by 0.3 per cent in the three months to September, slightly weaker than the 0.2 per cent contraction we forecast in October. Six out of the 13 manufacturing sub-sectors shrank in September itself, with the largest contribution coming from a 5.1 per cent decrease in the manufacture of transport equipment. Our forecast for the fourth quarter of 2021 is for manufacturing to grow by 0.2 per cent.

The IHS Markit/CIPS UK manufacturing PMI rose slightly to 57.8 in October, from 57.1 in September, its first rise in five months. The JPMorgan Global Manufacturing Output PMI was little changed at 54.3 in October.



**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 is a small but erratic component of industrial production that can have an influence on overall GDP growth. Output rose by 26 per cent in the three months to September, in line with our October forecast, thanks to reopening oilfields after planned maintenance in the second quarter. We forecast growth of 6 per cent in the fourth quarter of 2021.

### Construction (6 per cent of GDP)

Output in the construction sector fell by 1.5 per cent in the three months to September, slightly weaker than the 1.4 per cent contraction we forecast a month ago; this was largely driven by a fall in repair and maintenance and in new work. We expect construction output to grow by 0.7 per cent in the fourth quarter of 2021.

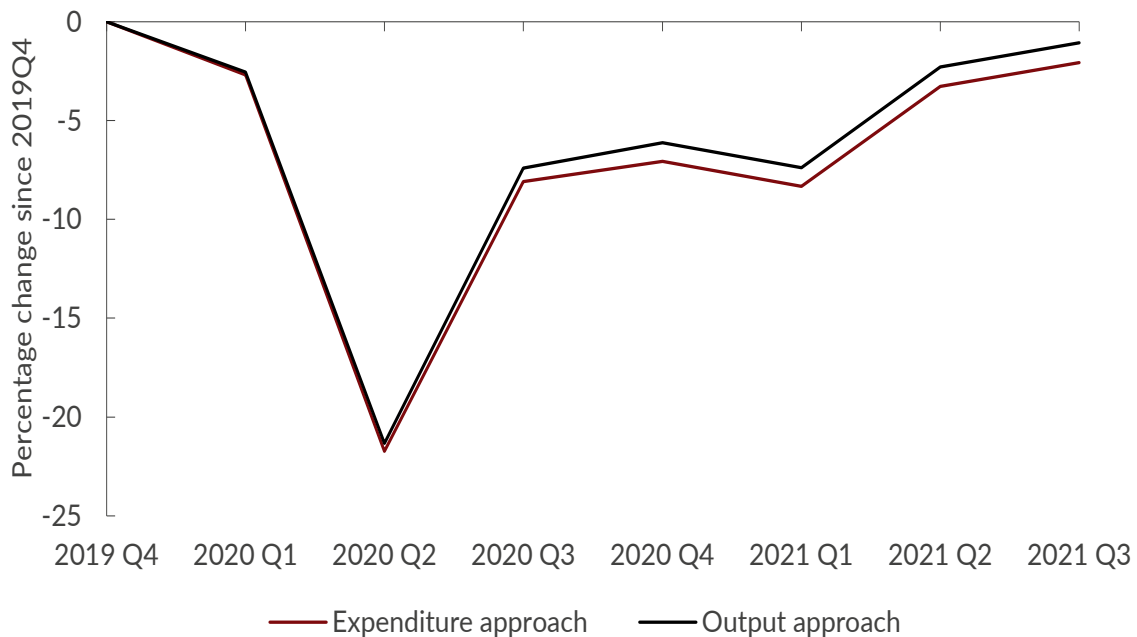
The IHS Markit/CIPS construction PMI survey registered 54.6 in October, up from 52.6 in September; a slight recovery from an eight-month low, but well below the rate of expansion reported in June.

### Note on data

The Office for National Statistics publishes three approaches to GDP at quarterly frequencies: those based on output (which are used by NIESR's GDP Tracker), expenditure and income. There are generally small statistical discrepancies between them.

The output measure, consistent with monthly GDP estimates, diverged during 2020 from the expenditure approach, as shown in Figure 9. While quarterly growth rates in 2021 have been similar, the divergence in the first year of Covid-19 means that the pre-Covid level of GDP is likely to be reached earlier if measured using the output-based approach than the expenditure-based approach. This is in addition to any difference between measuring on a monthly or quarterly basis.

Figure 9 - Different measurements of quarterly UK GDP during Covid-19





## 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 is published in January and will then be updated four times (in February, March, April and May) before the ONS publishes 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 2, 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 2 - 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**

For further information please contact the NIESR Press Office: [press@niesr.ac.uk](mailto:press@niesr.ac.uk) or Luca Pieri on [l.pieri@niesr.ac.uk](mailto:l.pieri@niesr.ac.uk) / 020 7654 1954

National Institute of Economic and Social Research  
2 Dean Trench Street  
Smith Square  
London, SW1P 3HE  
United Kingdom

Switchboard Telephone Number: 020 7222 7665  
Website: <http://www.niesr.ac.uk>