

NIESR

Monthly GDP Tracker

GP visits keep GDP growing in October

Rory Macqueen

December 2021

“October saw growth supported by the continued normalisation of some consumer-facing services sectors. By far the largest contribution came again from the health sector, with a further return to face-to-face GP appointments and strong test-and-trace activity. Retail and travel agencies also grew relatively rapidly, but hospitality fell back sharply after a strong September. Supply chain issues may have been a factor in slower than expected October growth rate: something which will be compounded by the emergence of the omicron variant, which will cause a rise in social distancing, both mandated and voluntary, in December and early 2022. Its overall economic impact is likely to be smaller than the first and second full lockdowns, but will delay the return of GDP to its pre-Covid level.”

Rory Macqueen
Principal Economist, NIESR

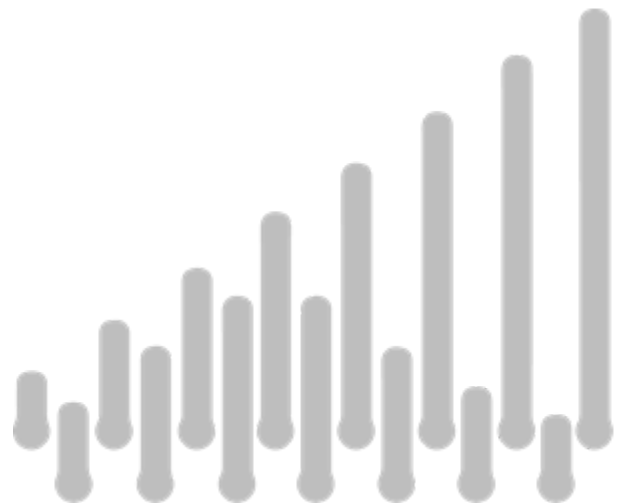
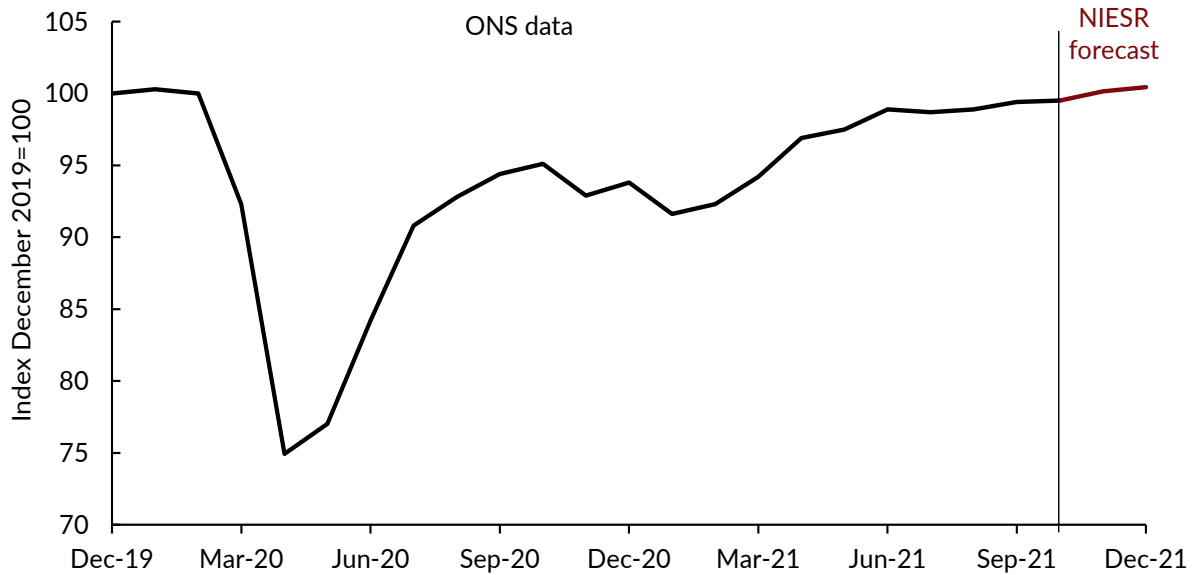


Figure 1 - UK GDP



Main points

- GDP grew only slightly in October, and growth was largely driven by the continuing return to face-to-face NHS appointments. Supply chain problems are likely to have been a factor in the lack of growth for manufacturing and the fall in construction activity.
- We forecast growth of 0.6 per cent in November, before significant concerns about transmission of Covid-19 began to return, falling to 0.3 per cent in December.
- Our overall forecast for the fourth quarter of 2021 is for growth of 1.0 per cent, following 1.3 per cent in the third quarter. Omicron is expected to restrain growth in the coming months but not to cause economic disruption anywhere near the scale of 2020, with households and businesses having adapted economic behaviour more with each wave.

Economic setting

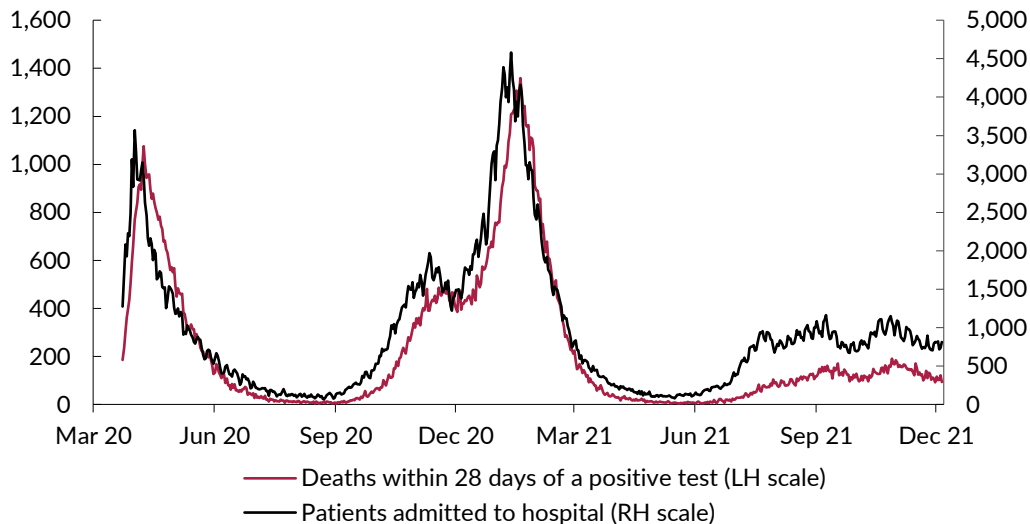
The principal source of concern for the UK economy is now the omicron variant of Covid-19. This could add further constraints to demand and supply, on top of the supply shortages which became apparent during the autumn. 'Plan B' restrictions are likely to have a relatively small macroeconomic impact but will affect consumer-facing services in December.

If the omicron variant is confirmed to pose problems for vaccine immunity it is likely to lead to a significant degree of voluntary social distancing even if the government does not impose a new lockdown. Either would affect the hospitality, transport and recreation sectors in particular. If this persists, further support measures for businesses – such as furlough – will be required to avoid widespread bankruptcies and/or redundancies.

The lockdown beginning in January 2021 had a far smaller effect on GDP than the first, beginning in March 2020, partly due to different degrees of restrictions but also because households and firms had adapted. Hence, there was a much greater set of systems for homeworking, online ordering, takeaway services, click-and-collect and deliveries already in place. This reduction in impact is only likely to have increased between then and any future lockdown. Nonetheless, the combined impact on private and government sector finances is likely to be greater than a no-lockdown scenario: this can be thought of as concentrating the economic 'pain' in a shorter period of time rather than living with a permanently lower level of output due to agents' reticence to return to pre-Covid activities.

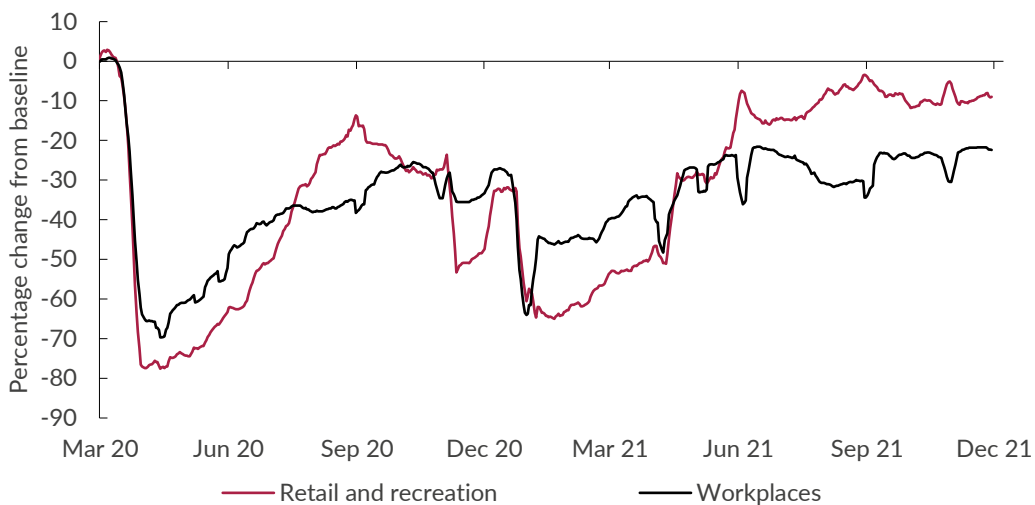
Elsewhere, uncertainty about the true level of activity in the economy persists, with output-based measures (on which our GDP Tracker is based) persisting in giving stronger readings than those comprising the components of expenditure (consumption, investment, trade). NIESR's [Autumn UK Economic Outlook](#), published last month, 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 experienced 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.

Figure 2.1 – UK daily Covid-19 statistics



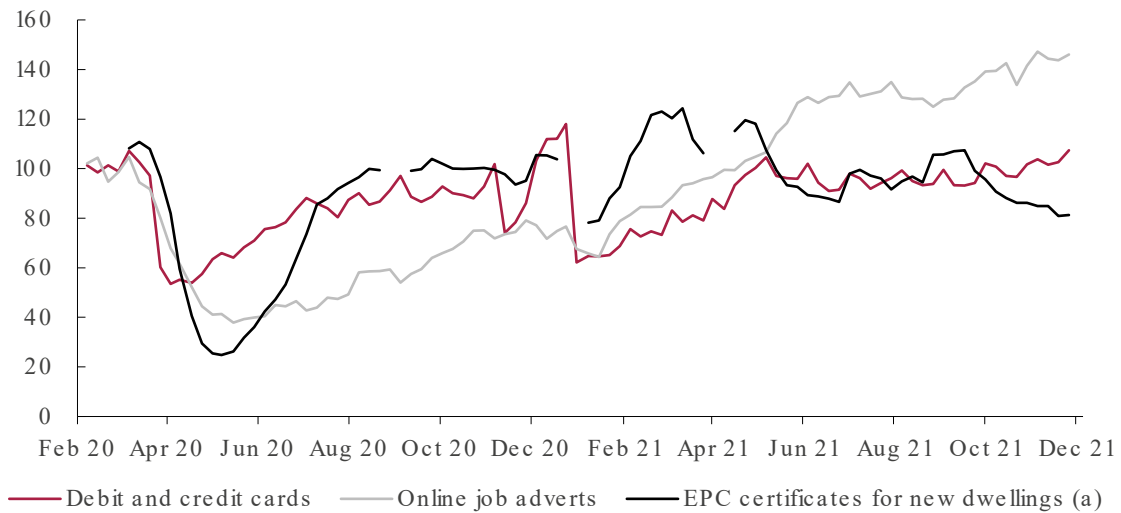
Source: Data.gov.uk. See coronavirus.data.gov.uk for further information.

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.

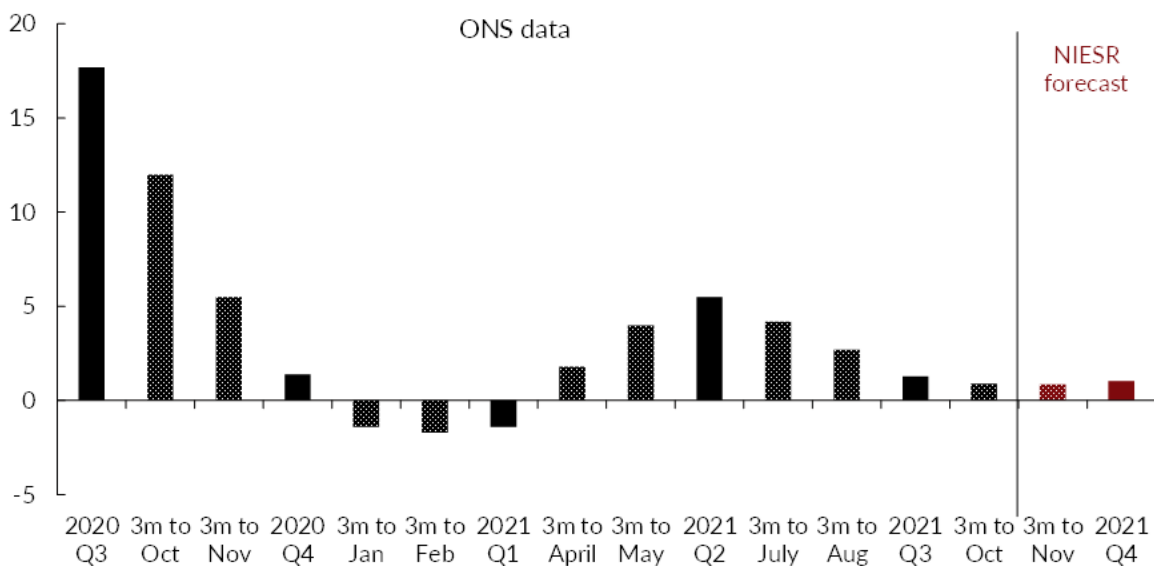


Notes: (a) England and Wales. Debit and credit cards (CHAPS-based): 100 = February 2020, percentage change on a backward looking seven-day rolling average, non-seasonally adjusted, nominal prices. Job adverts: change from the same week in 2019. EPC certificates: change from the same week in 2019/2020,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

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

High frequency indicators suggest that hiring remains close to record levels, with vacancies partly due to labour shortages in certain sectors but also potentially thanks to the smaller workforce post-Covid. Card spending has risen gradually since October but the construction of new dwellings continues to decline relative to pre-Covid rates for the time of year.

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



News in latest ONS data

The monthly GDP data for October were weaker than we forecast in November, GDP growing by just 0.1 per cent month-on-month instead of 0.4 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)

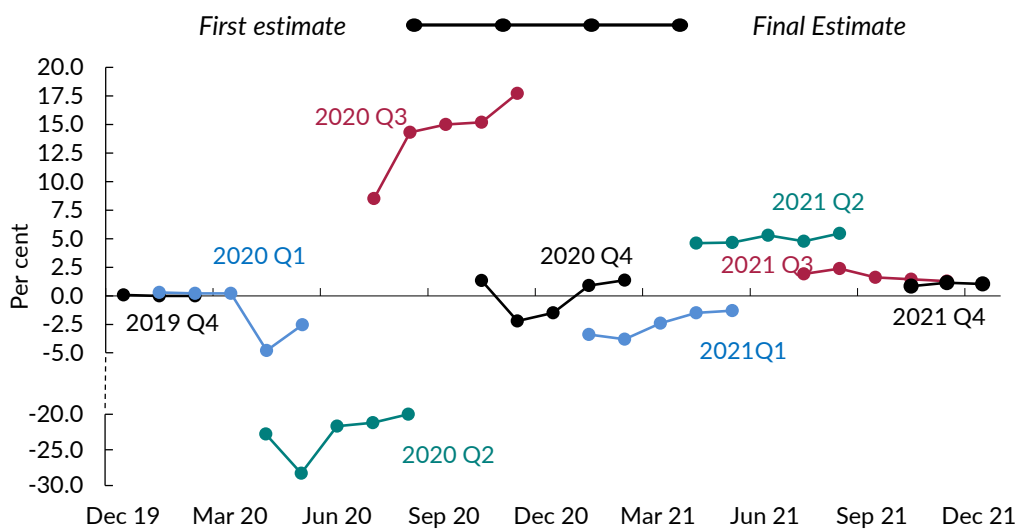
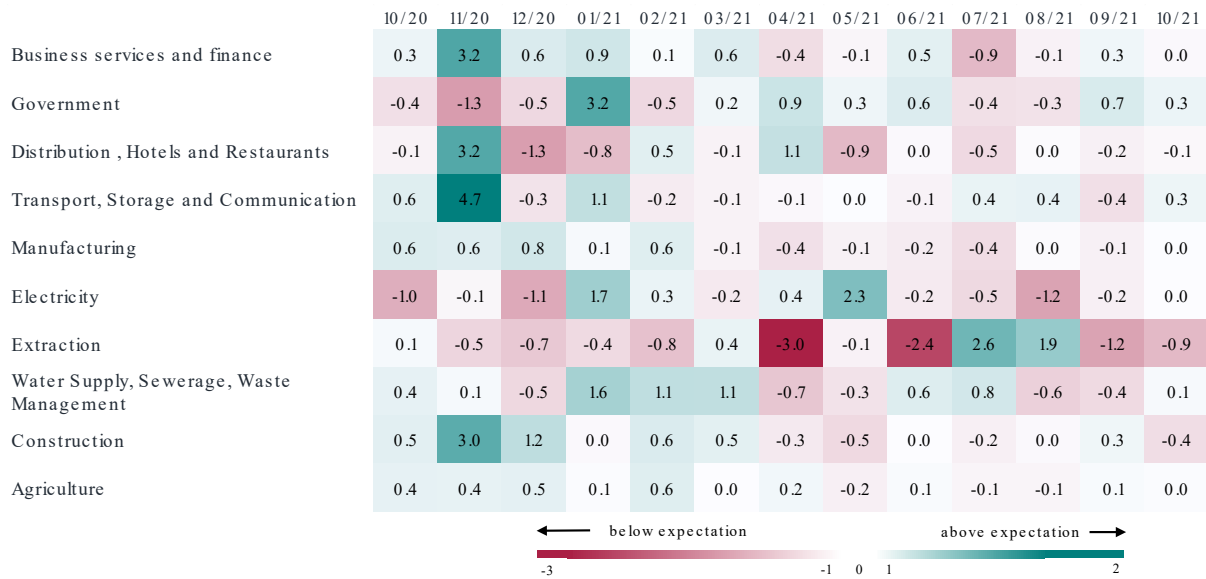


Figure 5 shows a heat map of the data surprises across sectors in the monthly data, relative to last month's GDP Tracker, highlighting the sectors where the surprises are large relative to the volatility of the output data. This month, there was again a positive surprise in government and other services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

Figure 5 - Surprises in monthly data

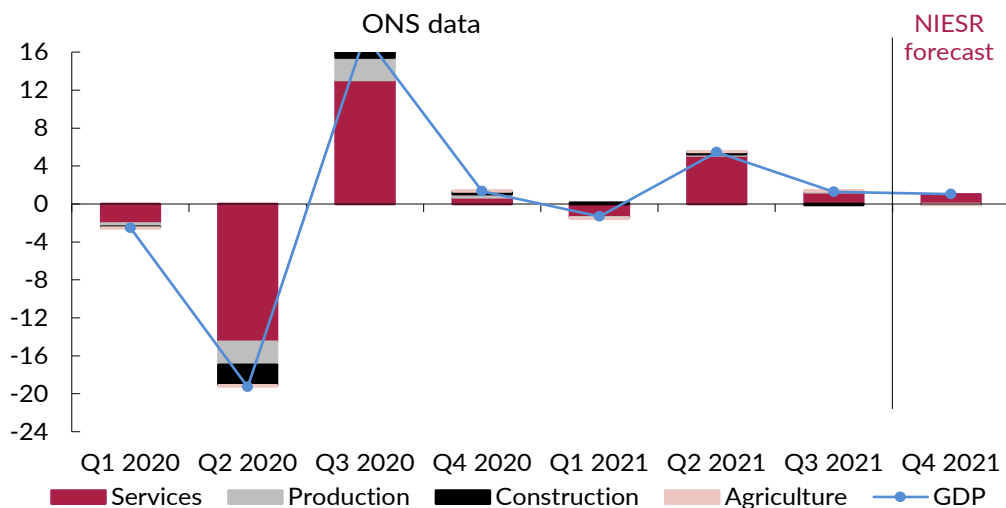


Note: Cells show forecast errors as a fraction of the standard deviation of errors for each series. Green cells are greater than expected, red cells are less than expected.

Sectoral detail

The economy grew by 0.9 per cent in the three months to October compared with the previous three months: slightly less than the 1.0 per cent growth forecast in our November Tracker forecast. This was mainly driven by post-lockdown growth in the hospitality, arts and recreation and administrative sectors. We now forecast output to grow by 1.0 per cent in the fourth quarter of 2021.

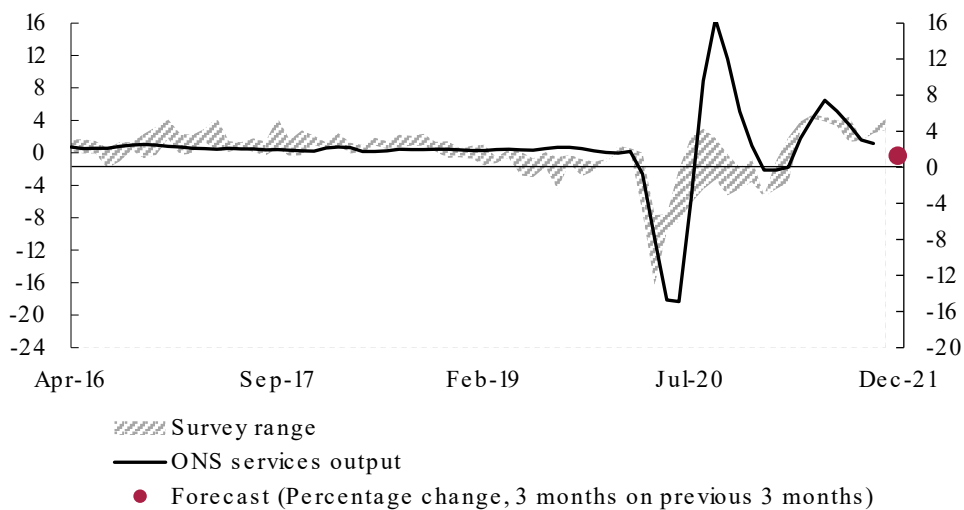
Figure 6 - Contributions to quarterly GDP growth (percentage points)



Services (80 per cent of GDP)

According to the latest ONS data, the services sector grew by 1.1 per cent in the three months to October, nearly in line with the 1.2 per cent we forecast a month ago. This largely results from growth in the arts and recreation, hospitality and admin sectors. Based on recent developments we expect service sector activity to grow by 1.3 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 a pick up in the growth rate of activity in November, 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 58.5 in November, down slightly from 59.1 in October, though new business growth was the strongest since June. Internationally, the JPMorgan Global Services Business Activity Index was unchanged in November at 55.6.

Production (14 per cent of GDP)

Production output grew by 0.5 per cent in the three months to October, slightly weaker than the 0.7 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 fall by 0.1 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.

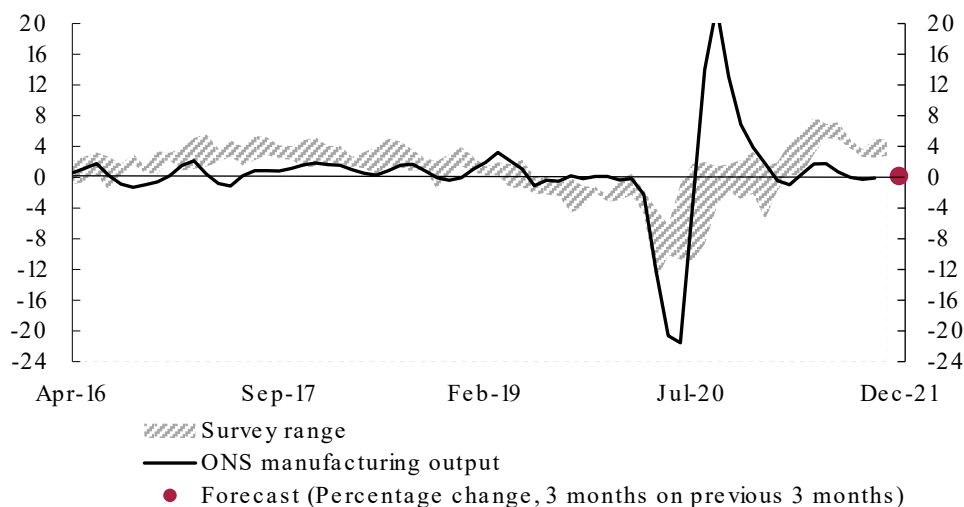
The production sector comprises manufacturing; mining and quarrying; electricity gas, steam and air conditioning; water supply and sewerage; and oil and gas extraction. The largest of these sectors is manufacturing, accounting for 10 per cent of GDP.

Manufacturing (10 per cent of GDP)

Within production, output in the manufacturing sector contracted by 0.1 per cent in the three months to October, in line with the 0.1 per cent fall we forecast in November. A 10 per cent fall from the manufacture of machinery and unclassified equipment was partially offset by a rise of 9% in pharmaceuticals. Our forecast for the fourth quarter of 2021 is for manufacturing to grow by 0.1 per cent.

The IHS Markit/CIPS UK manufacturing PMI rose to 58.1 in November from 57.8 in October: a three-month high. The JPMorgan Global Manufacturing Output PMI was almost unchanged at 54.2 in November.

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 October, slightly less than our November forecast of 28 per cent, thanks to reopening oilfields after planned maintenance in the second quarter. We forecast growth of 0.1 per cent in the fourth quarter of 2021.

Construction (6 per cent of GDP)

Output in the construction sector fell by 1.2 per cent in the three months to October, weaker than the 0.4 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 fall by 0.6 per cent in the fourth quarter of 2021.

The IHS Markit/CIPS construction PMI survey registered 55.5 in November, up from 54.6 in October, the strongest reading since July.

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

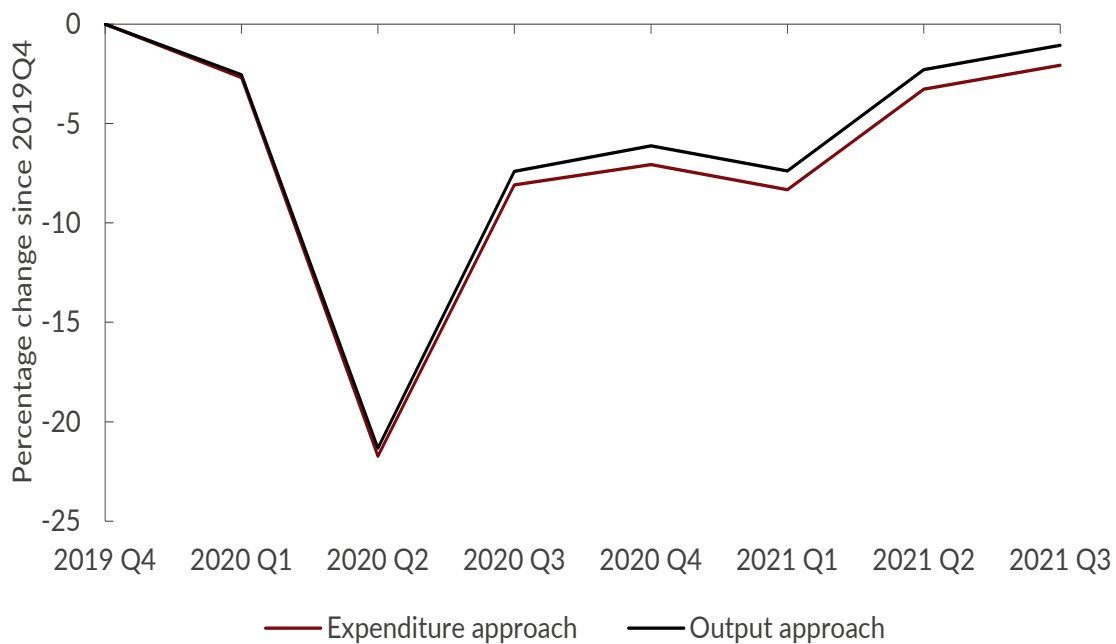


Table 1 - Summary Table of GDP growth (2019=100)

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	339	217	133	108	136	102	15	6	13	61	7
Mar-20	92.4	92.2	98.0	88.0	84.9	93.0	93.4	93.1	99.9	79.7	99.8	93.6	95.2
Apr-20	75.0	76.8	88.7	72.9	52.1	78.8	74.1	69.1	90.3	76.9	92.3	54.6	83.0
May-20	77.1	78.2	88.7	73.2	59.4	79.8	78.7	75.4	89.5	79.2	92.7	59.7	83.6
Jun-20	84.3	84.8	91.6	77.1	79.3	86.2	87.5	85.3	94.7	85.6	98.2	73.0	85.2
Jul-20	90.9	91.2	93.2	87.4	93.1	90.1	92.6	91.7	100.3	83.4	99.1	85.8	87.3
Aug-20	92.9	93.2	93.7	91.9	97.3	90.0	94.0	93.9	100.6	80.4	98.7	87.9	89.2
Sep-20	94.5	94.9	95.3	96.2	95.7	90.6	94.7	95.0	100.7	78.5	99.0	90.8	91.0
Oct-20	95.2	95.5	95.8	97.0	94.2	93.3	95.5	96.4	98.0	79.0	99.5	92.5	91.5
Nov-20	93.0	92.5	95.5	94.0	83.4	92.2	96.5	98.1	98.3	75.7	99.5	93.3	91.0
Dec-20	93.9	93.8	96.7	94.1	87.9	92.1	96.3	97.0	101.0	77.9	100.4	91.9	89.8
Jan-21	91.7	91.3	96.5	90.2	79.6	92.1	94.9	95.2	102.5	75.1	101.1	91.0	88.7
Feb-21	92.4	91.8	96.7	90.2	82.1	91.5	95.5	96.1	102.8	72.0	102.7	94.2	88.3
Mar-21	94.3	93.7	97.9	94.2	84.3	92.5	96.6	97.4	102.0	73.5	104.4	98.7	88.3
Apr-21	97.0	97.1	96.9	99.6	96.4	93.4	96.2	97.9	103.4	62.4	103.3	99.1	90.0
May-21	97.6	97.9	96.9	100.7	100.2	93.5	97.1	98.0	109.6	64.4	103.1	97.6	91.1
Jun-21	99.0	99.7	98.1	104.0	102.6	93.6	96.5	97.9	107.7	58.6	104.3	98.0	92.4
Jul-21	98.8	99.5	97.5	104.2	101.9	94.5	96.8	97.5	104.3	69.9	105.6	96.8	92.4
Aug-21	99.0	99.6	97.6	103.1	103.6	95.1	96.8	97.8	102.6	82.5	105.1	96.1	91.7
Sep-21	99.5	100.3	98.3	105.2	103.1	94.6	97.4	97.7	101.0	81.8	104.7	97.3	91.3
Oct-21	99.6	100.6	98.4	106.2	102.8	96.2	96.8	97.6	101.0	77.7	105.3	95.6	91.4
Nov-21	100.2	101.2	98.5	106.5	102.9	96.3	97.3	97.7	101.5	78.1	105.5	96.2	91.7
Dec-21	100.5	101.5	98.8	106.9	103.0	96.5	97.6	98.1	101.6	78.6	105.6	96.6	91.9

Percentage change, 3 months on previous 3 months													
Mar-20	-2.5	-2.6	-0.7	-3.7	-4.1	-3.0	-2.4	-2.3	-4.4	-4.7	0.6	-2.1	-7.7
Apr-20	-11.0	-10.6	-4.5	-13.9	-20.9	-9.2	-10.3	-12.2	-6.9	-6.3	-2.4	-17.2	-12.1
May-20	-18.7	-18.1	-8.5	-23.6	-34.9	-15.5	-17.0	-20.6	-8.3	-7.5	-4.7	-29.9	-15.2
Jun-20	-19.3	-18.3	-9.9	-23.7	-33.5	-15.9	-17.4	-21.5	-8.8	-3.2	-5.4	-35.6	-16.0
Jul-20	-5.7	-5.7	-4.7	-9.7	-2.6	-5.4	-2.8	-3.8	-1.9	2.8	-0.5	-11.4	-8.2
Aug-20	9.7	8.9	1.1	9.5	37.3	5.8	11.3	14.0	5.7	5.8	3.9	88.7	6.0
Sep-20	17.7	16.5	4.9	23.4	49.9	10.6	17.1	22.1	9.9	0.2	4.8	41.2	6.2
Oct-20	12.0	11.6	4.1	19.9	23.9	7.0	9.8	13.0	5.2	-4.1	2.5	24.1	6.1
Nov-20	5.4	5.1	2.9	12.0	1.3	3.7	4.6	6.9	0.5	-6.5	0.7	12.1	4.5
Dec-20	1.4	0.9	2.1	3.5	-7.2	2.5	2.5	3.9	-1.4	-4.0	0.9	5.0	1.8
Jan-21	-1.4	-2.1	1.4	-2.4	-12.6	0.9	1.2	1.8	0.8	-3.9	1.3	1.8	-0.8
Feb-21	-1.7	-2.1	1.2	-4.4	-8.7	-0.1	0.0	-0.4	3.1	-3.5	2.1	0.2	-2.4
Mar-21	-1.3	-1.8	1.1	-3.7	-7.3	-0.5	-0.5	-1.0	3.4	-5.2	2.9	2.2	-2.6
Apr-21	1.8	1.8	1.0	2.0	4.7	0.4	0.2	0.4	2.1	-9.1	3.1	5.7	-1.1
May-21	3.9	4.3	0.6	7.3	12.5	1.3	1.1	1.7	2.8	-11.0	2.2	6.6	1.0
Jun-21	5.5	6.5	0.3	10.8	21.6	1.6	1.0	1.8	4.4	-16.0	0.8	3.8	3.1
Jul-21	4.1	5.1	0.3	8.8	15.9	1.5	0.7	0.7	4.3	-7.2	0.8	0.1	3.5
Aug-21	2.7	3.5	0.5	5.7	9.7	1.4	0.4	0.0	-0.1	5.3	1.4	-1.5	2.6
Sep-21	1.3	1.6	0.5	2.7	3.1	1.3	0.8	-0.3	-4.0	26.3	1.5	-1.5	0.7
Oct-21	0.9	1.1	0.6	1.8	1.6	1.5	0.6	-0.1	-5.3	25.5	0.7	-1.2	-0.5
Nov-21	0.9	1.1	0.7	2.1	0.2	1.4	0.1	-0.1	-3.5	12.6	0.1	-0.6	-0.8
Dec-21	1.0	1.3	0.8	2.3	0.0	1.7	-0.1	0.1	-1.2	0.1	0.3	-0.6	-0.2

Percentage change, month on same month in previous year													
Mar-20	-7.5	-7.3	-1.5	-11.2	-15.1	-6.3	-8.7	-8.9	6.2	-32.2	-0.1	-6.8	3.1
Apr-20	-24.8	-22.8	-10.8	-26.5	-48.0	-21.4	-25.3	-30.1	-9.1	-24.8	-8.1	-45.7	-10.7
May-20	-22.8	-21.6	-10.9	-26.4	-40.7	-20.0	-21.5	-24.7	-11.5	-20.2	-8.3	-40.6	-11.9
Jun-20	-15.8	-15.2	-8.1	-23.0	-20.9	-14.2	-12.1	-14.6	-7.3	-5.0	-3.3	-26.6	-12.3
Jul-20	-9.4	-9.1	-7.1	-12.6	-7.2	-10.8	-7.2	-8.6	-0.2	-11.1	-1.4	-14.4	-4.2
Aug-20	-7.3	-7.2	-7.0	-8.6	-2.6	-10.0	-5.1	-5.5	2.2	-13.8	-1.9	-12.5	-15.9
Sep-20	-5.8	-5.6	-5.1	-4.4	-4.6	-10.1	-4.9	-4.7	-0.3	-18.2	-0.8	-9.3	-17.1
Oct-20	-5.2	-5.2	-5.0	-3.7	-5.6	-7.4	-4.6	-4.3	-6.5	-11.4	0.3	-6.3	-17.5
Nov-20	-7.0	-7.7	-4.3	-7.3	-16.3	-7.4	-4.8	-1.4	-7.3	-13.9	0.3	-6.2	-16.9
Dec-20	-6.2	-6.7	-3.6	-7.5	-12.0	-7.6	-2.6	-2.5	-2.8	-8.1	1.3	-7.2	-13.9
Jan-21	-8.7	-9.4	-3.9	-12.0	-21.3	-7.0	-3.9	-4.5	1.1	-11.8	0.8	-8.2	-14.4
Feb-21	-7.7	-8.7	-3.6	-11.7	-18.6	-7.6	-3.3	-4.0	3.1	-15.2	3.4	-4.2	-12.4
Mar-21	2.1	1.6	-0.1	7.0	-0.7	-0.5	3.4	4.6	2.1	-7.8	4.6	5.4	-7.2
Apr-21	29.3	26.4	9.2	36.6	85.0	18.5	29.8	41.7	14.5	-18.9	11.9	81.5	8.4
May-21	26.6	25.2	9.2	37.6	68.7	17.2	23.4	30.0	22.5	-18.7	11.2	63.5	9.0
Jun-21	17.4	17.6	7.1	34.9	29.4	8.6	10.3	14.8	13.7	-31.5	6.2	34.2	8.5
Jul-21	8.7	9.1	4.6	19.2	9.5	4.9	4.5	6.3	4.0	-16.2	6.6	12.8	5.8
Aug-21	6.6	6.9	4.2	12.2	6.5	5.7	4.0	4.2	2.0	-2.6	6.5	9.3	2.8
Sep-21	5.3	5.7	3.1	9.4	7.7	4.4	2.9	2.8	0.3	4.2	5.8	7.2	0.3
Oct-21	4.6	5.3	2.7	9.5	9.1	3.1	1.9	1.2	3.1	-1.6	5.8	3.4	-0.1
Nov-21	7.8	9.4	3.1	13.3	23.4	4.5	0.8	-0.4	3.3	3.2	6.0	3.1	0.7
Dec-21	7.1	8.2	2.2	13.6	17.1	4.8	1.3	1.1	0.5	0.8	5.1	5.1	2.3

Percentage change, month on previous month													
Mar-20	-7.7	-8.3	-2.3	-13.9	-15.9	-6.1	-5.5	-7.0	0.2	-6.1	0.5	-4.8	-5.6
Apr-20	-18.8	-16.7	-9.5	-17.2	-38.6	-15.3	-20.7	-25.8	-9.6	-3.5	-7.5	-41.7	-12.8
May-20	2.8	1.8	0.0	0.4	14.0	1.3	6.2	9.1	-0.9	3.0	0.4	9.3	0.7
Jun-20	9.3	8.4	3.3	5.3	33.5	8.0	11.2	13.1	5.8	8.1	5.9	22.3	1.9
Jul-20	7.8	7.5	1.7	13.4	17.4	4.5	5.8	7.5	5.9	-2.6	0.9	17.5	2.5
Aug-20	2.2	2.2	0.5	5.1	4.5	-0.1	1.5	2.4	0.3	-3.6	-0.4	2.4	2.2
Sep-20	1.7	1.8	0.7	4.7	-1.6	0.7	0.7	1.2	0.1	-2.4	0.3	3.3	2.0
Oct-20	0.7	0.6	0.5	0.8	-1.6	3.0	0.8	1.5	-2.7	0.6	0.5	1.9	0.5
Nov-20	-2.3	-3.1	-0.3	-3.1	-11.5	-1.2	1.0	1.8	0.3	-4.2	0.0	0.9	-0.5
Dec-20	1.0	1.4	1.3	0.1	5.4	-0.1	-0.2	-1.1	2.7	2.9	0.9	-1.5	-1.3
Jan-21	-2.3	-2.7	-0.2	-4.1	-9.4	0.0	-1.5	-1.9	1.5	-3.6	0.7	-1.0	-1.2
Feb-21	0.8	0.5	0.2	0.0	3.1	-0.7	0.6	0.9	0.3	-4.1	1.6	3.5	-0.5
Mar-21	2.1	2.1	1.2	4.4	2.7	1.1	1.2	1.4	-0.8	2.1	1.7	4.8	0.0
Apr-21	2.9	3.6	-1.0	5.7	14.4	1.0	-0.4	0.5	1.4	-15.1	-1.1	0.4	1.9
May-21	0.6	0.8	0.0	1.1	3.9	0.1	0.9	0.1	6.0	3.2	-0.2	-1.5	1.2
Jun-21	1.4	1.8	1.2	3.3	2.4	0.1	-0.6	-0.1	-1.7	-9.0	1.2	0.4	1.4
Jul-21	-0.2	-0.2	-0.6	0.2	-0.7	1.0	0.3</						

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

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