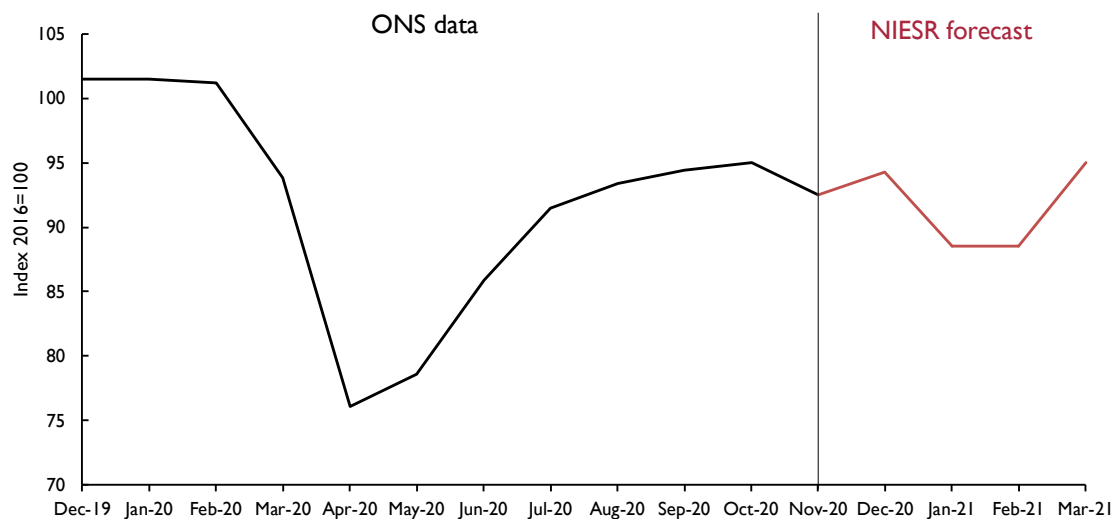


Adjusting to lockdowns: GDP to contract in 2021Q1

Figure 1 - UK GDP



Main points

- November GDP data confirm that the second lockdown in England had a far smaller impact on economic activity than the first. The manufacturing sector, for example, operated 32 per cent below pre-Covid capacity in April but continued its recovery to only 7 per cent below in November.
- December is likely to show some growth, but the emergence of the new strain weighed on activity in the second half of the month in particular. Taken together with today's ONS data revisions we expect a slowing of growth in GDP to 0.9 per cent in the final quarter of 2020, implying a contraction of 9.8 per cent in 2020 overall.
- With tighter Covid-19 restrictions required in January and likely to persist beyond, along with some post-Brexit adjustment, our initial forecast is for negative growth of 3.4 per cent in the first quarter of 2021.
- As always, the short-term negative economic impact of lockdowns should be outweighed by the potential positive long-term health and economic impacts from controlling the virus and restoring confidence.

“Today’s ONS data confirm a significant slowdown in the last quarter of 2020, despite November’s lockdown in England clearly having a far smaller effect than the first. Surveys and high frequency indicators suggest that recovery from the Covid-19 shock was weak even before a third lockdown become necessary in January. Temporary and permanent adjustments post-Brexit transition period are likely to also weigh on growth in the early part of 2021, but the vaccine roll-out provides some encouragement for consumption and investment in the second half of 2021 and beyond. The economic impact of the lockdowns is clearly negative in the short-term but will be significantly positive in the medium term if successful in controlling the virus and restoring confidence.”

Rory Macqueen

**Principal Economist - Macroeconomic Modelling and
Forecasting**

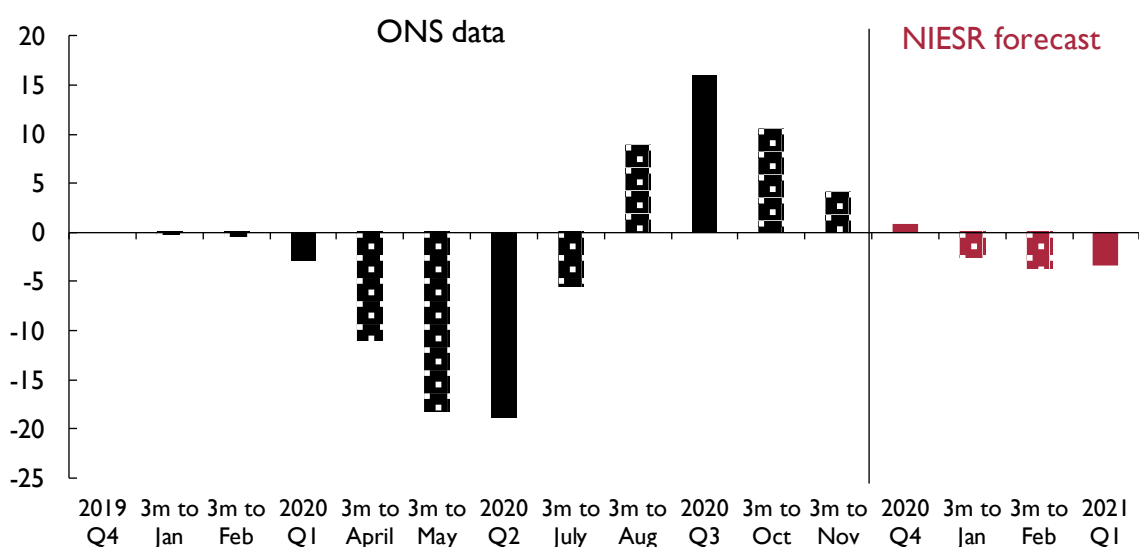
Economic setting

The UK economy returned to around 94 per cent of its pre-Covid level in October 2020, largely driven by the re-opening of the retail sector and the partial re-opening of the hospitality sector. The second lockdown in England, which took place in November, had little effect on manufacturing and construction but was a set-back for retail, hospitality and the arts and came on the back of generally slowing growth in October. The first part of December is likely to have provided some relief to businesses unable to operate in November but the emergence of the new Covid-19 strain, impacting consumer confidence and government policy-making particularly in the second half of the month, means the recovery will have been a restrained one.

The first quarter of 2021 is likely to be dominated by the return to stricter lockdown conditions, but early indicators suggest a smaller effect than seen in April 2021, with many employers requiring attendance or having invested in home-working arrangements. The near total closure of non-essential retail and hospitality and the likely maintenance of restrictions beyond the end of January make positive growth in Q1 unlikely. Anecdotal evidence on the early effects of the end of the Brexit transition deal suggest some dislocations at UK internal and external borders, but the extent of reorientation is unknown. The lack of a deal for financial services is also likely to have some effect in the short term at least.

The extension of furlough and other government schemes is welcome, indeed something NIESR has called for since July, especially with an end hopefully in sight. The medium-term consequences for the UK economy and fiscal policy will be discussed in our forthcoming UK forecast. As always, the economic impact of the lockdowns in November and early 2021 should be considered not just in the short-term impact on GDP but also the extent to which they succeed in controlling the virus and restoring confidence in the long term.

Figure 2 – UK GDP growth (3 months on previous 3 months, per cent)



News in latest ONS data

The latest monthly ONS data were slightly more positive than we had anticipated in our December Tracker, confirming GDP fell by 2.6 per cent in November 2020. Backward revisions also suggest that GDP was slightly higher – and notably higher in the case of construction – than previously estimated throughout the autumn. Figure 3 shows how our short-term forecasts for recent quarters have changed as new information has become available. The hospitality sector has been shrinking each month since August.

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

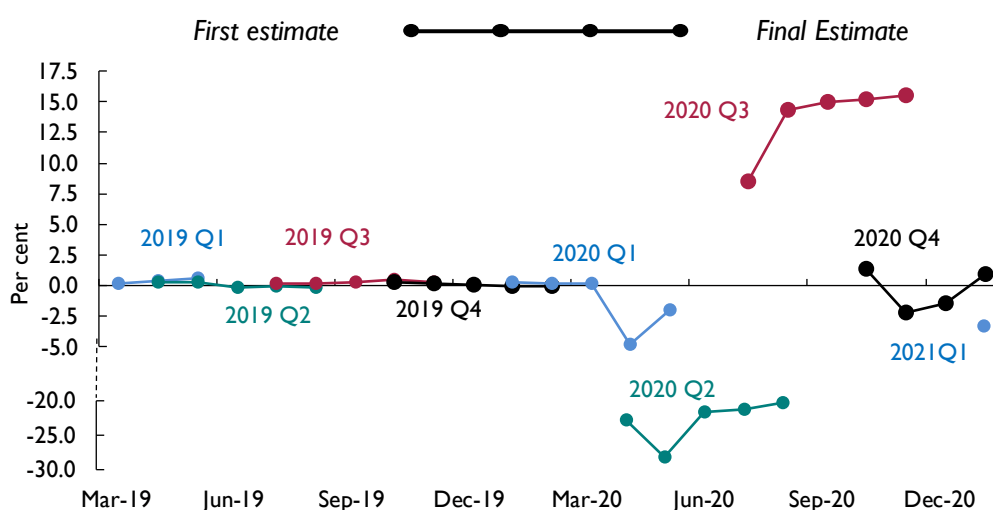
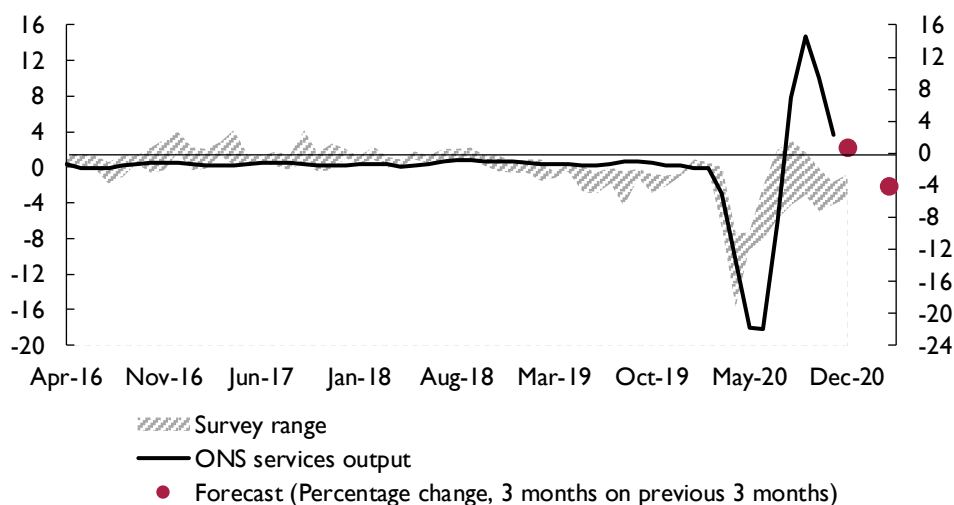


Figure 4 shows a heat map of the data surprises across sectors in the monthly data, relative to last month’s GDP Tracker, highlighting the sectors where the surprises are large relative to the volatility of the output data. This month, positive surprises were seen in water supply, construction, and government, with the only negative surprise seen in transport, storage and communication.

Services (80 per cent of GDP)

According to the latest ONS data, the services sector grew by 3.7 per cent in the three months to November, stronger than our previous forecast of 1 per cent. The growth in the services sector was driven by ‘government and other service sectors’, including education and health. Based on recent developments we expect service sector activity to grow by 0.7 per cent in the fourth quarter of 2020 (figure 6).

Figure 6 - 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 services activity in December, as shown by the swathe of survey indicators in figure 6. The headline business activity balance in the IHS Markit/CIPS UK services PMI remained negative in December at 49.4, slightly up from 47.6 in November but still below the 50-point level which separates expansion from contraction. Shrinking demand and pandemic restrictions were cited with the strongest sectors being residential property, business-to-business services and digital consumer services. Internationally, the JPMorgan Global Services Business Activity Index slowed to 51.8 in December, slightly down again from 52.2 in October.

Production (14 per cent of GDP)

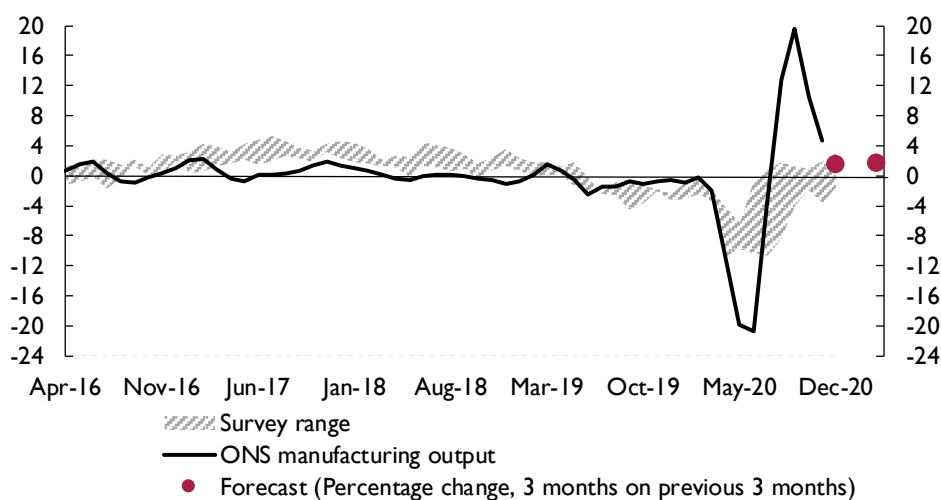
Production output grew by 2.8 per cent in the three months to November, slightly weaker than the 3.2 per cent we forecast a month ago. The growth in production was principally driven by manufacturing, which continued to recover strongly from the initial Covid-10 shock. We estimate that production will grow by 0.9 per cent in the fourth quarter of 2020, though output in this sector is volatile and difficult to predict on a quarterly basis with any accuracy.

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, worth 10 per cent of GDP.

Manufacturing (10 per cent of GDP)

Within production, output in the manufacturing sector grew by 4.7 per cent in the three months to November. Manufacturing industries experienced widespread increases over the month, with 12 out of 13 manufacturing sub-sectors increasing in the three months to November. The largest contribution in November was the manufacture of motor vehicles, which grew 5.7% on October. Our forecast for the fourth quarter is for manufacturing to grow by 1.6 per cent.

Figure 7 - 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.

The IHS Markit/CIPS UK manufacturing PMI rose to a three-year high 57.5 in December, up from 55.6 in November, a seventh straight month of growth. Growth in the sector reflected orders being brought forward to before the end of the Brexit transition period, as well as continuing global re-opening. Intermediate goods grew strongly and consumer goods returned to growth though job cuts were made. Inventories rose by the second largest rate in the survey's history after March 2019.

The JPMorgan Global Manufacturing Output was largely unchanged in December at 53.8, the sixth straight month of expansion. Supply chains nevertheless remained stretched, leading to delays.

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 shrank by 7 per cent in the three months to November. We now forecast a decline of 3.1 per cent in the fourth quarter of 2020.

Construction (6 per cent of GDP)

Output in the construction sector grew by 12 per cent in the three months to November, a stronger outturn than we had forecast a month ago. The main contributor to this increase was infrastructure. We anticipate output to grow by around 3 per cent in the fourth quarter of 2020.

The IHS Markit/CIPS construction PMI survey continued to suggest expansion in December, largely unchained at 54.6 in November. Underlying data suggested that civil engineering was the weakest performing area, shrinking for the fourth time in five months.

Table 1 - Summary Table of GDP growth (2016=100)

2016=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		
	1000	796	339	217	133	108	136	102	15	6	13	61	7
Latest weights	1000	796	339	217	133	108	136	102	15	6	13	61	7
Mar-19	101.4	101.4	100.2	101.1	102.4	104.2	101.2	101.5	98.3	103.4	100.0	102.6	103.6
Apr-19	101.0	101.4	100.0	101.1	102.4	105.0	98.1	97.6	101.3	96.8	100.2	102.4	104.4
May-19	101.2	101.4	100.1	101.3	102.4	104.6	99.3	98.5	102.6	99.7	101.8	102.7	105.3
Jun-19	101.4	101.8	100.4	101.5	102.6	105.5	99.0	98.2	103.6	97.3	102.3	101.4	105.9
Jul-19	101.7	102.1	101.0	101.5	102.8	106.0	98.7	98.4	100.6	96.4	100.8	102.5	106.8
Aug-19	101.6	102.2	101.1	102.0	102.6	105.3	97.7	96.9	99.6	98.1	101.1	102.2	107.8
Sep-19	101.6	102.1	100.7	102.1	102.5	106.2	98.2	96.9	99.2	106.3	100.8	102.5	108.5
Oct-19	101.9	102.5	101.1	102.3	102.9	106.6	98.8	98.0	103.7	99.1	99.7	100.2	108.9
Nov-19	101.5	102.2	100.7	102.8	102.5	105.0	97.6	96.2	104.1	99.6	99.5	101.3	109.0
Dec-19	101.5	102.3	101.0	102.9	102.2	105.2	97.2	96.3	101.8	96.4	100.1	100.2	108.9
Jan-20	101.5	102.2	101.0	103.0	103.0	104.0	97.2	96.7	98.6	96.6	100.7	100.1	108.4
Feb-20	101.2	101.9	100.9	102.3	102.5	104.0	97.6	97.4	98.2	96.5	99.6	99.3	107.4
Mar-20	93.8	93.8	98.5	89.0	87.1	98.4	92.4	90.8	98.1	90.6	100.6	95.7	105.5
Apr-20	76.1	77.9	88.8	76.4	53.5	82.4	74.3	68.3	89.3	88.4	92.7	56.8	99.1
May-20	78.6	79.6	88.4	78.4	60.7	83.2	78.6	73.9	90.1	90.8	92.7	64.2	99.9
Jun-20	85.9	86.2	91.7	82.2	79.9	90.2	87.1	83.6	93.9	97.7	98.2	77.8	103.0
Jul-20	91.5	91.4	93.4	87.3	92.5	93.3	91.6	89.2	98.4	95.0	99.7	90.1	106.0
Aug-20	93.4	93.5	93.8	90.1	99.7	92.9	91.8	90.0	98.0	91.6	98.4	94.0	107.2
Sep-20	94.4	94.5	94.9	93.2	97.2	93.8	92.1	90.6	97.9	89.3	100.0	96.5	107.1
Oct-20	95.0	95.0	95.4	94.6	95.7	95.3	93.1	92.0	97.5	89.2	100.2	98.0	105.6
Nov-20	92.5	91.7	94.6	93.1	84.7	93.9	93.0	92.6	95.3	86.1	99.8	99.8	104.0
Dec-20	94.3	94.8	94.6	94.6	95.5	95.0	92.0	89.5	101.3	92.0	101.4	92.1	101.3
Jan-21	88.6	87.4	92.8	81.8	81.1	90.0	93.2	93.5	93.3	85.9	98.6	91.9	101.0
Feb-21	88.6	87.4	92.8	81.8	81.1	90.0	93.2	93.5	93.3	85.9	98.6	91.9	101.0
Mar-21	95.0	95.0	95.4	93.9	95.7	95.3	93.0	92.0	97.5	89.2	100.2	98.0	105.6
Percentage change, 3 months on previous 3 months													
Sep-19	0.4	0.6	0.8	0.6	0.2	0.8	-0.6	-0.7	-2.6	2.4	-0.5	0.2	2.4
Oct-19	0.3	0.5	0.5	0.7	0.1	0.6	-0.8	-1.1	-1.4	3.4	-1.1	-0.6	2.3
Nov-19	0.1	0.2	0.0	0.7	0.0	0.3	-0.3	-0.8	1.1	4.5	-1.4	-0.7	1.8
Dec-19	0.0	0.2	0.0	0.8	-0.1	-0.2	-0.3	-0.6	3.4	-1.9	-1.1	-1.8	1.1
Jan-20	-0.2	0.0	-0.1	0.8	-0.1	-1.2	-0.9	-0.9	0.7	-3.6	-0.4	-1.1	0.3
Feb-20	-0.3	-0.1	0.2	0.3	-0.1	-1.4	-0.9	-0.2	-2.7	-5.1	0.1	-1.4	-0.5
Mar-20	-2.8	-3.0	-0.8	-4.5	-4.9	-3.3	-2.2	-1.9	-4.7	-3.9	0.5	-2.2	-1.7
Apr-20	-11.0	-10.8	-4.8	-13.3	-21.0	-9.4	-9.5	-11.3	-6.2	-5.8	-2.5	-16.5	-4.4
May-20	-18.3	-18.0	-9.0	-20.9	-34.6	-15.7	-16.0	-19.8	-7.1	-6.8	-4.8	-27.7	-6.2
Jun-20	-18.9	-18.2	-10.5	-19.5	-33.6	-16.5	-16.4	-20.7	-7.3	-2.4	-5.7	-32.6	-6.0
Jul-20	-5.6	-6.0	-5.1	-7.4	-4.1	-6.3	-2.6	-3.8	-1.1	2.9	-0.8	-7.8	-1.0
Aug-20	9.0	7.9	1.2	6.5	35.2	4.7	10.3	12.8	4.6	5.4	3.6	20.9	3.8
Sep-20	16.1	14.6	4.9	14.1	49.1	9.4	14.8	19.5	7.7	-0.4	5.1	41.1	6.1
Oct-20	10.5	10.0	3.9	12.1	25.5	5.7	7.7	10.5	3.9	-4.7	2.8	24.3	3.6
Nov-20	4.1	3.7	2.2	8.2	2.0	2.4	2.8	4.7	0.1	-6.9	1.2	12.4	0.2
Dec-20	0.9	0.7	0.9	4.3	-4.7	1.5	0.9	1.6	-0.1	-3.1	1.1	3.3	-2.9
Jan-21	-2.6	-3.2	-0.7	-3.0	-10.7	-1.1	0.4	1.1	-1.2	-2.3	0.4	-1.6	-4.3
Feb-21	-3.7	-4.1	-1.7	-8.1	-7.2	-2.8	0.1	0.5	-1.0	-0.3	-0.5	-6.3	-4.3
Mar-21	-3.4	-4.1	-1.3	-8.8	-6.5	-3.1	0.5	1.8	-3.4	-2.4	-1.3	-2.8	-1.1
Percentage change, month on same month in previous year													
Sep-19	1.2	1.7	0.6	2.0	2.1	4.2	-2.2	-3.7	-0.1	5.6	0.7	1.4	8.6
Oct-19	1.2	1.7	0.4	1.9	1.7	4.9	-0.7	-1.5	5.5	-2.2	-0.2	-1.3	8.7
Nov-19	0.7	1.2	0.0	2.4	0.4	2.9	-1.3	-2.7	5.9	-0.4	0.3	0.1	7.6
Dec-19	1.0	1.4	0.8	2.4	1.5	1.2	-1.7	-2.6	3.4	-2.6	0.9	1.3	5.6
Jan-20	0.5	1.0	0.9	2.4	1.0	-0.4	-2.5	-3.3	-2.3	-0.4	1.9	-0.8	4.9
Feb-20	-0.1	0.6	0.5	1.4	0.4	-0.3	-2.4	-3.0	0.5	-2.6	0.0	-3.8	4.2
Mar-20	-7.5	-7.5	-1.7	-12.0	-14.9	-5.5	-8.7	-10.5	-0.2	-12.4	0.6	-6.7	1.8
Apr-20	-24.7	-23.2	-11.2	-24.4	-47.7	-21.5	-24.3	-30.0	-11.8	-8.7	-7.5	-44.5	-5.1
May-20	-22.3	-21.5	-11.7	-22.6	-40.7	-20.4	-20.8	-25.0	-12.2	-8.9	-8.9	-37.5	-5.1
Jun-20	-15.3	-15.3	-8.7	-19.0	-22.1	-14.5	-12.0	-14.9	-9.4	0.4	-4.0	-23.3	-2.7
Jul-20	-10.0	-10.5	-7.5	-14.0	-10.0	-11.9	-7.2	-9.3	-2.2	-1.5	-1.1	-12.1	-0.7
Aug-20	-8.1	-8.5	-7.2	-11.7	-2.8	-11.8	-6.0	-7.1	-1.6	-6.6	-2.7	-8.0	-0.6
Sep-20	-7.1	-7.4	-5.7	-8.7	-5.1	-11.7	-6.2	-6.5	-1.3	-16.0	-0.8	-5.9	-1.3
Oct-20	-6.8	-7.3	-5.7	-7.5	-7.0	-10.6	-5.8	-6.1	-6.0	-10.0	0.5	-2.2	-3.0
Nov-20	-8.9	-10.3	-6.0	-9.5	-17.4	-10.6	-4.7	-3.7	-8.5	-13.6	0.3	-1.5	-4.6
Dec-20	-7.1	-7.4	-6.4	-8.1	-6.6	-9.7	-5.4	-7.1	-0.5	-4.6	1.3	-8.1	-7.0
Jan-21	-12.7	-14.5	-8.2	-20.7	-21.3	-13.5	-4.1	-3.3	-5.4	-11.1	-2.1	-8.2	-6.9
Feb-21	-12.5	-14.2	-8.1	-20.9	-13.4	-13.4	-4.5	-4.0	-5.0	-11.0	-1.0	-7.5	-6.0
Mar-21	1.3	1.3	-3.2	5.6	9.8	-3.2	0.7	1.3	-0.6	-1.5	-0.4	2.4	0.1
Percentage change, month on previous month													
Sep-19	0.0	-0.1	-0.4	0.1	-0.1	0.9	0.5	0.0	-0.4	8.4	-0.3	0.3	0.6
Oct-19	0.3	0.4	0.4	0.2	0.4	0.4	0.6	1.1	4.5	-6.8	-1.1	-2.2	0.4
Nov-19	-0.4	-0.3	-0.4	0.5	-0.4	-1.5	-1.2	-1.8	0.4	0.5	-0.2	1.1	0.1
Dec-19	0.0	0.1	0.3	0.1	-0.3	0.2	-0.4	0.1	-2.2	-3.2	0.6	-1.1	-0.1
Jan-20	0.0	-0.1	0.0	0.1	0.8	-1.1	0.0	0.4	-3.1	0.2	0.6	-0.1	-0.5
Feb-20	-0.3	-0.3	-0.1	-0.8	-0.5	-0.1	0.4	0.7	-0.4	-0.1	-1.1	-0.8	-0.9
Mar-20	-7.3	-7.9	-2.4	-13.0	-15.0	-5.3	-5.3	-6.8	-0.1	-6.1	1.0	-3.6	-1.8
Apr-20	-18.9	-17.0	-9.9	-14.1	-38.6	-16.2	-19.6	-24.8	-9.0	-2.4	-7.9	-40.6	-6.1
May-20	3.3	2.2	-0.5	2.6	13.4	1.0	5.8	8.2	0.9	2.7	0.0	13.0	0.8
Jun-20	9.3	8.3	3.8	4.9	31.7	8.4	10.8	13.1	4.2	7.6	5.9	21.2	3.1
Jul-20	6.5	6.0	1.9	6.1	15.8	3.5	5.2	6.7	4.8	-2.8	1.5	15.8	2.9
Aug-20	2.1	2.3	0.4	3.2	7.8	-0.5	0.2	0.9	-0.4	-3.6	-1.3	4.3	1.1
Sep-20	1.1	1.1	1.2	3.5	-2.5	1.0	0.3	0.7	-0.1	-2.5	1.6	2.7	-0.1
Oct-20	0.6	0.5	0.5	1.5	-1.6	1.7	1.1	1.5	-0.4	-0.1	0.2	1.6	-1.4
Nov-20	-2.6	-3.5	-0.8	-1.6	-11.5	-1.5	-0.1	0.7	-2.3	-3.5	-0.4	1.8	-1.5
Dec-20	1.9	3.4	-0.1	1.6	12.7	1.2	-1.1	-3.3	6.3	6.9	1.6	-7.7	-2.6
Jan-21	-6.1	-7.8	-1.9	-13.6	-15.1	-5.2	1.3	4.5	-7.9	-6.6	-2.8	-0.3	-0.3
Feb-21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mar-21	7.3	8.7	2.8	14.9	18.0	5.9	-0.2	-1.6	4.5	3.9	1.6	6.7	4.6

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			-2.2		
Average absolute error				0.22	0.08

Notes for editors

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