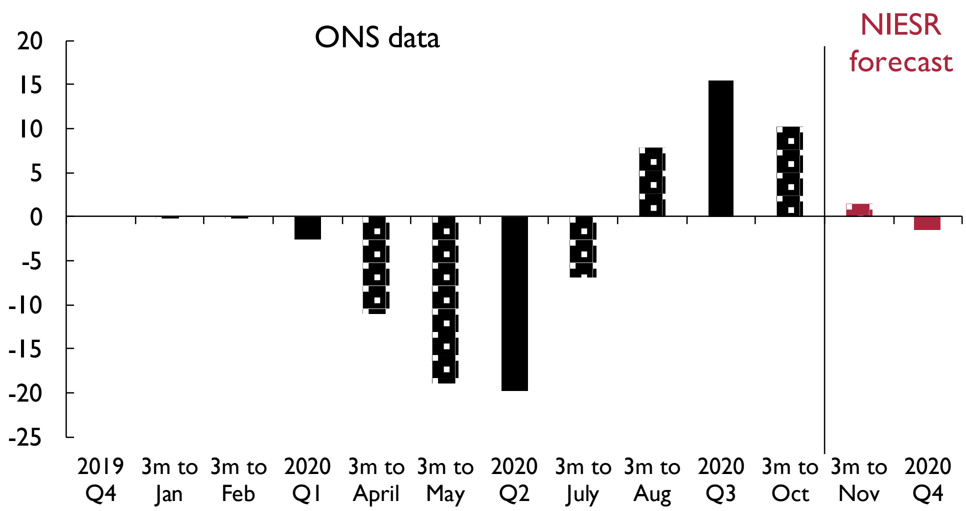
National Institute
Monthly GDP Tracker

Thursday, 10th December 2020 | niesr.ac.uk | Rory Macqueen

October Cloud and November Rain

Figure 1 - UK GDP growth (3 months on previous 3 months, per cent)



Main points

- The morning's ONS estimates suggest that the UK economy grew by 0.4 per cent in October, as the economic recovery from the early stages of Covid-19 slowed. This is largely in line with what we expected in our November GDP Tracker.
- Based on survey data for November and NIESR judgement we estimate that economic activity fell by some 9.3 per cent: as expected, a smaller drop than during the full lockdown in Spring 2020.
- Our outlook for the fourth quarter is for a 1.5 per cent decline in activity, following 9.7 per cent month-on-month growth in December.
- We now expect the level of GDP at the end of the 2020 to be some 8.5 per cent lower than it was at the end of 2019.

"Today's ONS data show that the fourth quarter got off to a ponderous start even before the second lockdown in England was imposed. Survey data suggest that although the economic impact of the second lockdown in November was smaller than the first, it does seem more likely than not that the final quarter of the year will show little or no overall growth in GDP with the recovery shuddering to a halt. While the rollout of the vaccine offers some positive momentum, the final act of Brexit is likely to offset that in the early months of 2021."

Rory Macqueen

Principal Economist - Macroeconomic Modelling and Forecasting

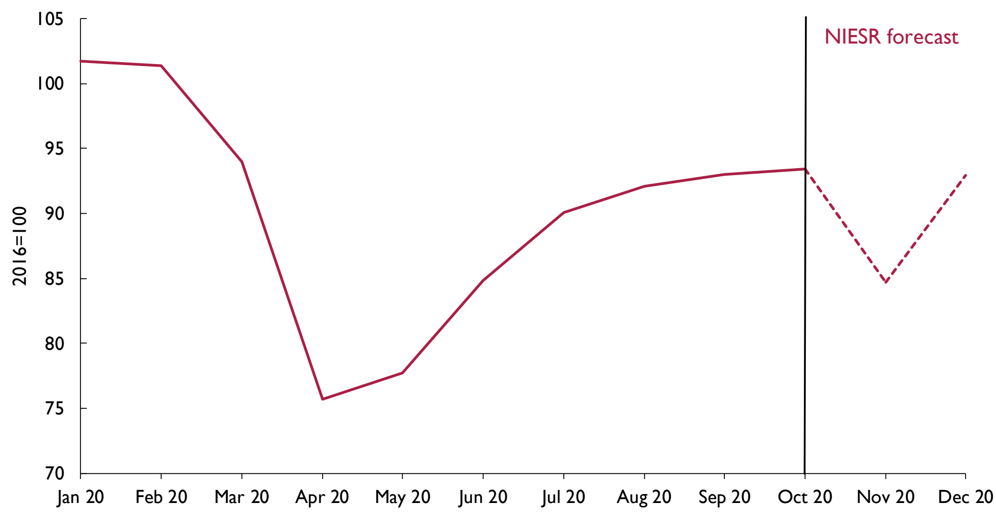
Economic setting

The UK economy initially grew fairly quickly after the first lockdown was lifted in the summer but had only returned to around 92 per cent of its February level in October, before the second lockdown in England took effect. This recovery was supported by the partial reopening of the hospitality sectors, though the arts and recreation sector remained over 20 per cent below its pre-pandemic level. The second lockdown will have particularly affected hospitality and transport but, with restrictions lighter and both public and businesses more prepared, the effect on November GDP is likely to have been far smaller than the 22 per cent fall between February and April.

The full economic cost of the pandemic will not be known for some time but some of the long-term consequences of further recurrences, and the potential impact of Brexit on the recovery, were discussed in our November National Institute Economic Review which was published before the second lockdown was announced. NIESR welcomed the extension of government economic support schemes which will help support demand and reduce scarring pending the return to some form of normal. The beginning of the roll-out of the vaccine, representing a potential boost to consumer and business confidence, constitutes an upside risk to our December forecast.

The outlook for early 2021 is heavily dependent on two things: the speed of the return of consumer and business confidence after Covid-19 and the end of the Brexit transition period. As described in our November Review, the economic impacts of the two shocks largely do not coincide: the end of the EU transition period may affect sectors which have not been as hard hit by Covid-19, such as finance and manufacturing.

Figure 2 – UK GDP during 2020



News in latest ONS data

The latest monthly ONS data were largely in line with what we had anticipated in our November Review and last month, confirming GDP grew by 0.4 per cent in October 2020. Figure 3 shows how our short-term forecasts for recent quarters have changed as new information has become available.

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

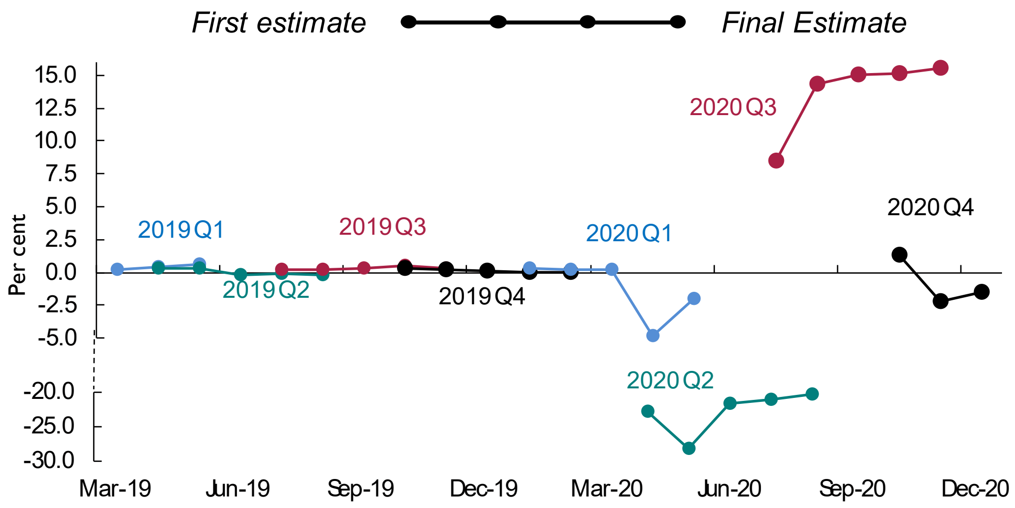


Figure 4 shows a heat map of the data surprises across sectors in the monthly data, relative to last month's GDP Tracker, highlighting the sectors where the surprises are large relative to the volatility of the output data. This month, positive surprises were seen in water supply, construction, and government,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

Figure 4 - Surprises in monthly data

	10/19	11/19	12/19	01/20	02/20	03/20	04/20	05/20	06/20	07/20	08/20	09/20	10/20
Business services and finance	0.0	-0.2	0.1	0.0	0.0	1.5	2.7	-1.8	-3.7	0.6	-0.8	0.5	0.2
Government	0.0	0.1	0.1	0.1	0.0	-1.7	4.4	0.5	0.0	2.4	0.1	0.7	-0.5
Distribution , Hotels and Restaurants	0.0	-0.1	-0.1	0.1	-0.1	1.1	4.0	-1.9	2.6	-0.1	1.3	0.2	-0.2
Transport, Storage and Communication	0.0	-0.5	0.3	-0.4	-0.2	4.4	1.9	-1.9	0.1	-0.8	-0.5	-0.3	0.1
Manufacturing	0.2	-0.6	0.0	0.1	0.2	3.1	-1.7	1.2	3.4	0.0	-0.1	0.6	0.7
Electricity	0.3	-0.1	-0.4	-1.6	-1.0	3.0	-2.1	-1.9	1.2	0.8	0.1	0.0	-0.2
Extraction	-0.7	0.3	-0.7	0.3	-0.3	-3.5	-2.8	-0.6	1.7	-0.1	-1.2	0.1	0.1
Water Supply, Sewerage, Waste Management	-1.0	-0.6	0.5	0.8	-0.9	0.5	-2.6	-1.0	2.4	1.5	-0.9	1.5	0.6
Construction	-0.6	0.2	-0.1	-0.2	-0.5	2.3	-3.3	-1.3	2.6	0.8	0.9	0.7	0.3
Agriculture	0.2	-0.1	-0.5	0.5	-0.5	0.0	-2.8	0.3	4.1	-0.9	0.0	0.2	-0.5

below expectation above expectation

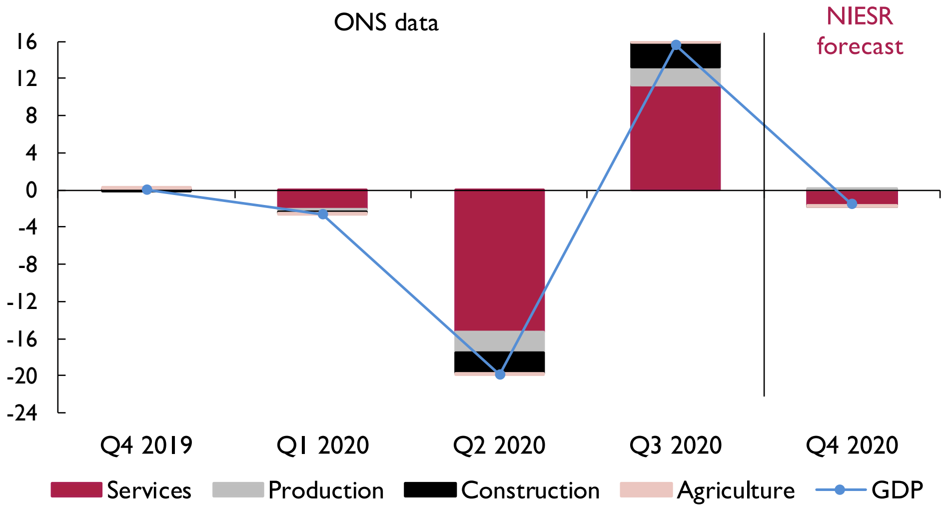
-3 -1 0 1 2

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

Sectoral detail

The economy grew by 10.2 per cent in the three months to October, exactly in line with our November Tracker. Growth in the last three months was largely underpinned by positive contributions across the economy with the exception of mining and quarrying. Our forecast for the fourth quarter of 2020 is for negative growth of 1.5 per cent.

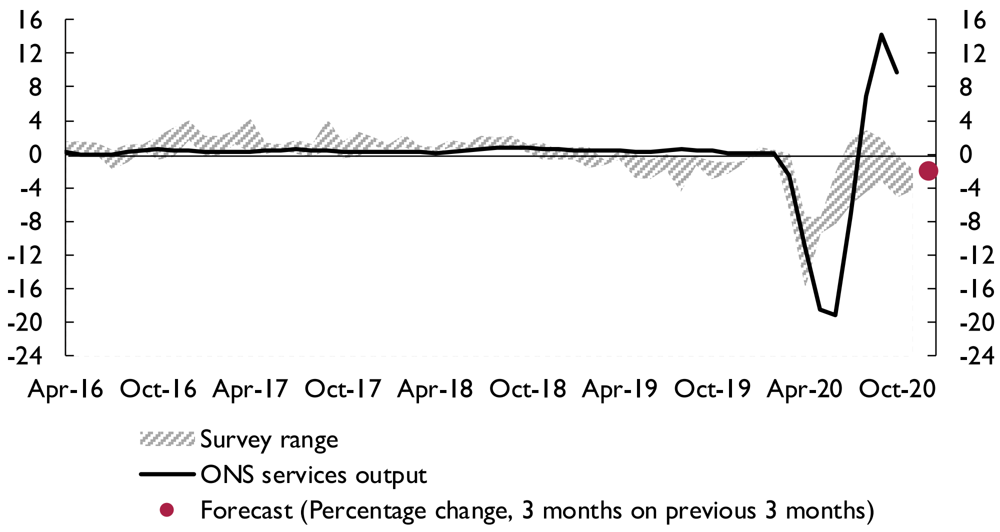
Figure 5 - Contributions to quarterly GDP growth (percentage points)



Services (80 per cent of GDP)

According to the latest ONS data, the services sector grew by 9.7 per cent in the three months to October, almost in line with our forecast a month ago of 9.8 per cent. The growth in the services sector was driven by widespread increases across the industries, most notably accommodation and food services, which grew by 187 per cent compared with the previous three months. Based on recent developments we expect service sector activity to decline by about 2 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 a slowing of growth in the private service sector, as shown by the swathe of survey indicators in figure 6. The headline business activity balance in the IHS Markit/CIPS UK services fell to 47.6 in November, sharply down from 51.4 in October. This is below the 50-point which separates expansion from contraction for the first time in five months but still comfortably higher than the record low 13.4 seen in April. Latest data suggested a further fall in new orders, primarily reflecting temporary closures in hospitality, travel and leisure. Widespread redundancies were reported, including the fastest rate of job shedding for three months. Internationally, the JPMorgan Global Services Activity Index registered at 52.2 in November, slightly down from 52.9 in September, including a solid drop in new export business.

Production (14 per cent of GDP)

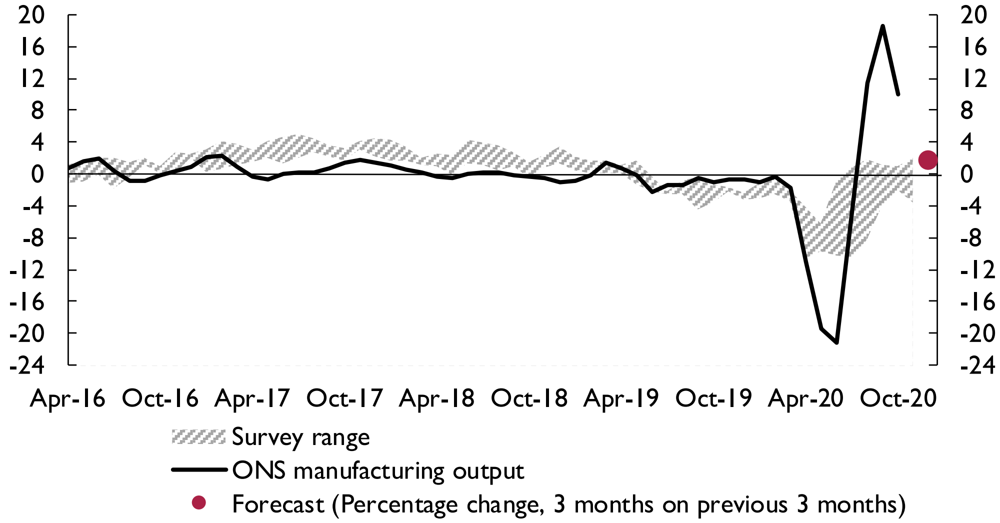
Production output grew by 7.6 per cent in the three months to October, slightly stronger than the 7.1 per cent we forecast a month ago. The growth in production was principally driven by manufacturing, but electricity and gas supply and water supply also contributed positively. We estimate that production will grow by 1.2 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 10 per cent in the three months to October. Manufacturing industries experienced widespread increases over the month, with 11 out of 13 sub-sectors larger in October than in September. The most notable was again the manufacture of transport equipment, which grew by 5 per cent on September. Our forecast for the fourth quarter is for manufacturing to grow by 2 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 35-month high 55.6 in November, from 53.7 in October, a sixth straight month of growth. Growth in the sector reflected higher intakes of new work and catching up on orders delayed by lockdown. Investment and intermediate goods industries saw marked expansions while the consumer goods sector continued to contract. New business from overseas was boosted by EU clients bringing forward purchases, likely for similar reasons as the highest rate of input purchases since March 2019.

The JPMorgan Global Manufacturing Output rose to 53.7 in November, up from 53.0 in October, a 33-month high. The fastest expansion was in the investment goods sector where output rose at the fastest rate in almost a decade.

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 2.3 per cent in the three months to October,. We now forecast a decline of 1.3 per cent in the fourth quarter of 2020.

Construction (6 per cent of GDP)

Output in the construction sector grew by 24.9 per cent in the three months to October, a very slightly stronger outturn than what we had forecast last month. The main contributor to this increase was private new housing. We anticipate output to decline by around 1½ per cent in the fourth quarter of 2020.

The IHS Markit/CIPS construction PMI survey continued to suggest expansion in November, rising to 54.7 from 53.1 in October. Underlying data suggested that house building continued to grow rapidly, while civil engineering activity returned to growth.

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

2016=100	GDP index	Index of Services	*Index of Services - Components*: Business services and finance	Government and other services	Distribution, Hotels and Restaurants	Transport, Storage and Communications	Index of Production	*Index of Production - Components*: Manufacturing	Electricity, gas, steam and air conditioning	Mining and Quarrying	Water Supply, Sewerage and Waste Management	Index of Constructio	Agriculture
Latest weights	*1000*	*796*	*339*	*217*	*133*	*108*	*136*	*102*	*15*	*6*	*13*	*61*	*7*
Dec-18	100.5	100.9	100.2	100.5	100.7	104.0	98.9	98.9	98.5	99.0	99.2	98.9	103.1
Jan-19	100.9	101.1	100.1	100.6	102.0	104.4	99.4	99.6	100.8	97.1	98.4	101.0	103.3
Feb-19	101.3	101.4	100.3	101.0	102.2	104.4	99.8	100.2	97.6	99.3	98.8	103.4	103.1
Mar-19	101.5	101.4	100.3	101.1	102.4	104.4	101.3	101.7	98.4	103.7	98.9	102.3	103.6
April-19	101.0	101.4	100.0	101.1	102.5	105.1	98.1	97.7	101.2	97.3	98.8	102.2	104.4
May-19	101.3	101.5	100.1	101.2	102.4	105.1	99.3	98.7	102.2	100.3	100.8	102.5	105.3
Jun-19	101.4	101.8	100.5	101.7	102.5	105.4	98.9	98.2	103.1	97.8	100.5	101.1	105.9
Jul-19	101.7	102.1	100.9	101.8	102.8	105.9	98.7	98.4	100.5	97.3	100.0	102.1	106.8
Aug-19	101.5	102.1	101.0	102.0	102.7	105.0	97.9	97.3	99.7	98.3	100.7	102.0	107.8
Sep-19	101.6	102.0	100.7	102.0	102.5	105.5	98.3	97.2	99.4	104.5	100.7	102.5	108.4
Oct-19	101.8	102.4	101.1	102.2	102.9	106.0	98.8	97.9	103.7	98.5	99.9	100.6	108.8
Nov-19	101.5	102.0	100.7	102.6	102.3	104.6	97.8	96.5	103.8	99.6	100.0	101.7	108.9
Dec-19	101.6	102.3	101.0	102.8	102.3	105.4	97.3	96.4	101.8	96.5	100.4	100.6	108.7
Jan-20	101.7	102.4	101.1	102.9	103.4	104.4	97.2	96.6	98.9	96.8	100.4	100.8	108.3
Feb-20	101.4	102.2	101.1	102.2	102.9	104.4	97.6	97.4	98.2	96.7	99.4	99.5	107.4
Mar-20	94.0	94.1	98.8	89.0	86.9	98.6	93.1	91.5	98.1	91.2	101.4	94.0	105.5
Apr-20	75.7	77.3	88.7	72.8	53.3	81.5	74.9	68.5	91.3	89.7	93.9	55.3	99.1
May-20	77.7	78.7	88.1	74.2	60.2	82.1	79.1	73.9	91.7	92.1	95.3	60.3	99.9
Jun-20	84.8	85.2	91.2	77.5	79.2	90.0	86.9	82.8	95.6	98.8	99.5	73.5	103.1
Jul-20	90.1	90.1	92.6	83.6	91.8	93.2	91.5	88.5	99.9	97.1	100.6	86.3	105.9
Aug-20	92.1	92.2	93.0	86.2	99.3	93.2	91.7	89.3	100.5	92.9	100.0	89.6	106.8
Sep-20	93.0	93.2	94.0	88.6	97.7	94.2	92.1	89.4	100.9	94.1	101.8	92.2	106.7
Oct-20	93.4	93.4	94.2	89.7	95.9	95.2	93.3	91.0	101.1	94.3	102.4	93.1	105.2
Nov-20	84.7	83.5	87.6	90.6	67.1	76.2	93.4	91.2	101.7	93.2	102.2	79.1	103.5
Dec-20	93.0	93.1	93.4	90.3	95.7	94.9	92.0	89.5	101.3	92.0	101.4	92.1	101.3
	Percentage change, 3 months on previous 3 months												
Jun-19	0.0	0.3	0.0	0.4	0.3	0.8	-1.4	-2.3	3.3	-1.6	1.4	-0.3	1.8
Jul-19	0.2	0.4	0.3	0.5	0.2	0.8	-0.8	-1.4	2.9	-1.6	1.6	-0.7	2.2
Aug-19	0.3	0.6	0.7	0.7	0.2	0.5	-1.1	-1.4	0.5	-2.6	0.9	-0.6	2.3
Sep-19	0.4	0.5	0.7	0.6	0.2	0.3	-0.5	-0.6	-2.3	1.6	0.4	0.3	2.3
Oct-19	0.2	0.4	0.4	0.5	0.1	0.0	-0.6	-1.0	-1.0	2.0	0.0	-0.2	2.2
Nov-19	0.1	0.1	0.0	0.4	-0.1	-0.1	-0.2	-0.8	1.2	3.1	-0.2	-0.1	1.7
Dec-19	0.0	0.2	0.1	0.6	-0.2	-0.1	-0.3	-0.7	3.2	-1.8	-0.4	-1.2	1.1
Jan-20	0.0	0.1	0.0	0.7	0.0	-0.7	-0.9	-1.0	0.6	-2.8	-0.2	-0.7	0.3
Feb-20	-0.1	0.2	0.2	0.4	0.3	-0.6	-0.9	-0.4	-2.6	-4.2	-0.1	-1.3	-0.5
Mar-20	-2.6	-2.6	-0.6	-4.4	-4.7	-2.7	-2.0	-1.8	-4.6	-3.4	0.3	-2.8	-1.6
Apr-20	-11.1	-10.8	-4.7	-14.4	-21.1	-9.5	-9.1	-11.1	-5.6	-5.2	-2.0	-17.9	-4.3
May-20	-18.8	-18.5	-9.1	-23.4	-35.1	-16.5	-15.4	-19.5	-6.0	-5.9	-3.2	-30.3	-6.1
Jun-20	-19.8	-19.3	-11.0	-23.7	-34.3	-17.5	-16.3	-21.1	-5.6	-1.4	-4.2	-35.7	-5.9
Jul-20	-6.8	-7.2	-5.8	-10.9	-4.9	-6.7	-3.0	-4.7	-0.1	3.7	0.2	-11.5	-1.0
Aug-20	7.9	7.0	0.4	4.8	34.9	5.4	9.3	11.4	5.3	5.8	3.3	19.0	3.7
Sep-20	15.5	14.2	4.3	15.1	49.9	10.6	14.3	18.7	8.1	1.2	4.7	41.8	5.7
Oct-20	10.3	9.8	3.4	12.4	26.7	6.5	7.6	10.0	5.3	-2.3	3.0	24.9	3.2
Nov-20	1.5	1.0	-0.4	8.7	-3.5	-3.9	3.2	4.2	2.6	-2.5	2.1	6.0	-0.1
Dec-20	-1.5	-2.0	-1.6	4.7	-10.4	-5.1	1.2	1.7	0.9	-1.6	1.2	-1.4	-2.9
	Percentage change, month on same month in previous year												
Jun-19	1.5	2.0	0.8	2.0	2.2	6.0	-1.3	-2.4	6.5	-1.2	-1.7	0.2	6.5
Jul-19	1.4	2.0	0.8	1.9	1.4	6.9	-1.9	-1.8	0.6	-7.1	-1.0	1.0	7.2
Aug-19	1.1	1.7	0.9	1.9	1.7	4.1	-2.3	-2.5	0.1	-6.6	-0.1	1.6	8.0
Sep-19	1.2	1.6	0.6	1.9	2.1	3.5	-2.1	-3.4	0.1	3.8	0.6	1.4	8.5
Oct-19	1.1	1.6	0.4	1.8	1.7	4.3	-0.7	-1.6	5.5	-2.8	0.0	-0.9	8.6
Nov-19	0.7	1.0	0.0	2.2	0.2	2.5	-1.1	-2.4	5.6	-0.4	0.8	0.5	7.5
Dec-19	1.1	1.4	0.8	2.3	1.6	1.3	-1.6	-2.5	3.4	-2.5	1.2	1.7	5.4
Jan-20	0.8	1.3	1.0	2.3	1.4	0.0	-2.2	-3.0	-1.9	-0.3	2.0	-0.2	4.8
Feb-20	0.1	0.8	0.8	1.2	0.7	0.0	-2.2	-2.8	0.6	-2.6	0.6	-3.8	4.2
Mar-20	-7.4	-7.2	-1.5	-12.0	-15.1	-5.6	-8.1	-10.0	-0.3	-12.1	2.5	-8.1	1.8
Apr-20	-25.0	-23.8	-11.3	-28.0	-48.0	-22.5	-23.6	-29.9	-9.8	-7.8	-5.0	-45.9	-5.1
May-20	-23.3	-22.5	-12.0	-26.7	-41.2	-21.9	-20.3	-25.1	-10.3	-8.2	-5.5	-41.2	-5.1
Jun-20	-16.4	-16.3	-9.3	-23.8	-22.7	-14.6	-12.1	-15.7	-7.3	1.0	-1.0	-27.3	-2.6
Jul-20	-11.4	-11.8	-8.2	-17.9	-10.7	-12.0	-7.3	-10.1	-0.6	-0.2	0.6	-15.5	-0.8
Aug-20	-9.3	-9.7	-7.9	-15.5	-3.3	-11.2	-6.3	-8.2	0.8	-5.5	-0.7	-12.2	-0.9
Sep-20	-8.5	-8.6	-6.7	-13.1	-4.7	-10.7	-6.3	-8.0	1.5	-10.0	1.1	-10.0	-1.6
Oct-20	-8.3	-8.8	-6.8	-12.2	-6.8	-10.2	-5.6	-7.0	-2.5	-4.3	2.5	-7.5	-3.3
Nov-20	-16.5	-18.2	-13.0	-11.7	-34.4	-27.2	-4.5	-5.5	-2.1	-6.5	2.2	-22.2	-5.0
Dec-20	-8.5	-9.0	-7.5	-12.1	-6.5	-10.0	-5.5	-7.2	-0.5	-4.6	1.0	-8.5	-6.8
	Percentage change, month on previous month												
Jun-19	0.1	0.3	0.4	0.5	0.1	0.3	-0.4	-0.5	0.9	-2.5	-0.3	-1.4	0.6
Jul-19	0.3	0.3	0.4	0.1	0.3	0.5	-0.2	0.2	-2.5	-0.5	-0.5	1.0	0.8
Aug-19	-0.2	0.0	0.1	0.2	-0.1	-0.8	-0.8	-1.1	-0.8	1.0	0.7	-0.1	0.9
Sep-19	0.1	-0.1	-0.3	0.0	-0.2	0.5	0.4	-0.1	-0.3	6.3	0.0	0.5	0.6
Oct-19	0.2	0.4	0.4	0.2	0.4	0.5	0.5	0.7	4.3	-5.7	-0.8	-1.9	0.4
Nov-19	-0.3	-0.4	-0.4	0.4	-0.6	-1.3	-1.0	-1.4	0.1	1.1	0.1	1.1	0.1
Dec-19	0.1	0.3	0.3	0.2	0.0	0.8	-0.5	-0.1	-1.9	-3.1	0.4	-1.1	-0.2
Jan-20	0.1	0.1	0.1	0.1	1.1	-0.9	-0.1	0.2	-2.8	0.3	0.0	0.2	-0.4
Feb-20	-0.3	-0.2	0.0	-0.7	-0.5	0.0	0.4	0.8	-0.7	-0.1	-1.0	-1.3	-0.8
Mar-20	-7.3	-7.9	-2.3	-12.9	-15.5	-5.6	-4.6	-6.1	-0.1	-5.7	2.0	-5.5	-1.8
Apr-20	-19.5	-17.9	-10.2	-18.2	-38.7	-17.3	-19.5	-25.1	-6.9	-1.6	-7.4	-41.2	-6.1
May-20	2.6	1.8	-0.7	1.9	12.9	0.7	5.6	7.9	0.4	2.7	1.5	9.0	0.8
Jun-20	9.1	8.3	3.5	4.4	31.6	9.6	9.9	12.0	4.3	7.3	4.4	21.9	3.2
Jul-20	6.3	5.8	1.5	7.9	15.9	3.6	5.3	6.9	4.5	-1.7	1.1	17.4	2.7
Aug-20	2.2	2.3	0.4	3.1	8.2	0.0	0.2	0.9	0.6	-4.3	-0.6	3.8	0.8
Sep-20	1.0	1.1	1.1	2.8	-1.6	1.1	0.4	0.1	0.4	1.3	1.8	2.9	-0.1
Oct-20	0.4	0.2	0.2	1.2	-1.8	1.1	1.3	1.8	0.2	0.2	0.6	1.0	-1.4
Nov-20	-9.3	-10.6	-7.0	1.0	-30.0	-20.0	0.1	0.2	0.6	-1.2	-0.2	-15.0	-1.6
Dec-20	9.7	11.6	6.6	-0.3	42.6	24.6	-1.6	-1.9	-0.4	-1.2	-0.8	16.4	-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 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		15.0	0.5	
2020Q4			-2.2		
Average absolute error				0.22	0.08

Notes for editors

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