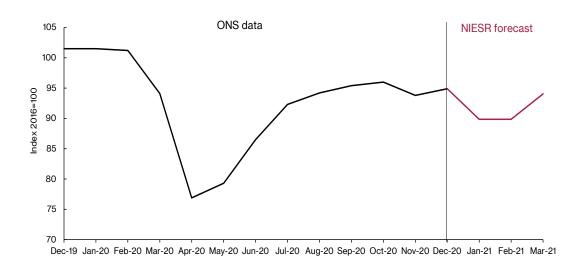
Friday, 12th February 2021

niesr.ac.uk

Continued lockdown puts gloom on Q1 outlook

Figure 1 - UK GDP



Main points

- Latest economic data confirms that the UK economy posted 1.0 per cent growth in the fourth quarter of 2020, consistent with annual decline of 9.9 per cent. This annual decline is exactly in line with the published forecast in our latest <u>National</u> <u>Institute UK Economic Outlook</u>.
- The magnitude of the fall in 2020 means the UK economy has suffered the largest contraction in its history and is likely to have displayed the worst performance among G7 countries.
- After contracting by 2.3 per cent in November due to the effects of the second national lockdown, output increased by 1.2 per cent in December, largely reflecting partial rebound in the services sector on the back of eased lockdown over the Christmas period.
- The second wave of Covid-19 and continued lockdowns imply a persistent divergence in economic performance across sectors. At the end of December 2020, hospitality and arts were 55 per cent and 34 per cent below their February 2020 levels, while manufacturing and retail were below by 4 per cent and 2 per cent, respectively.
- As stringent Covid-19 restrictions are expected remain elevated until early spring, along with the effects of post-Brexit adjustment, our forecast is for GDP growth to decline by 3.8 per cent in the first quarter of 2021.

"According to today's ONS figures, UK GDP contracted by 9.9 per cent in 2020, which is likely to be the largest annual fall among G7 countries last year. Economic growth slowed significantly, dropping from 16.1 per cent in the third quarter to 1 per cent in the last quarter of the year. As a result, the level of GDP in the fourth quarter remained about 8 per cent below pre-pandemic levels even before a third lockdown became necessary in January 2021. With Covid-19 restrictions expected to remain elevated until early spring, we anticipate a sharp decline in activity during the first quarter of the year. Nevertheless, growth will pick up from the second quarter onwards as restrictions ease on the back of a successful vaccination programme."

Dr Kemar Whyte

Senior Economist - Macroeconomic Modelling and Forecasting

Economic setting

In line with our recent forecasts, UK GDP contracted by 9.9 per cent in 2020, which is the largest annual fall on record. Accordingly, UK economic performance in 2020 is likely to be the worst among G7 countries. The quarterly growth rate dropped from 16.1 per cent in the third quarter to 1 per cent in the last quarter of the year amid tightened restrictions even before a third lockdown became necessary in January. Given the quarterly contraction rates of 2.9 per cent and 19 per cent in the first two quarters of the year, the level of GDP in 2020Q4 stands at about 7.8 per cent below their pre-pandemic levels (2019Q4) despite the growth in the second half of the year.

A third national lockdown and the uncertainty regarding the path of the virus and the duration of the lockdown are likely to see the economy contract in the first quarter of this year. The outlook for the year ahead largely depends on the success in combating the pandemic, with the length and stringency of social distancing restrictions key to the growth outlook. In our latest National Institute UK Economic Outlook, our forecast for 2021 is for year-on-year growth of 3.4 per cent, a downward revision from our previous forecast of 5.9 per cent, reflecting the effects of the second wave of Covid-19 and the associated lockdowns.

High frequency indicators suggest that economic activity in January was lower than in November but higher than during Spring 2020. There are notable differences in the extent of restrictions compared with the first lockdown. For e.g. far more children are attending schools and more employers have either invested in home working capabilities or are requiring staff to attend work.

The cost of operating in the current economic conditions continue to weigh heavily on the services sector. The latest IHS Markit Services PMI Index suggest that there was a sharp fall in business activity in January, primarily reflecting lockdown measures and restrictions on trade. Manufacturing activity, on the other hand, has held up, mainly due to Brexit-related stockpiling in the fourth quarter as companies built up their inventories to mitigate the risk of a disruptive, disorderly departure from the European Union. Nevertheless, now that a trade deal has been struck, companies are likely to run down their inventories, contributing to the weakening of activity in the first quarter. The latest IHS Markit Manufacturing PMI indicate that the rate of expansion slowed to its joint weakest.

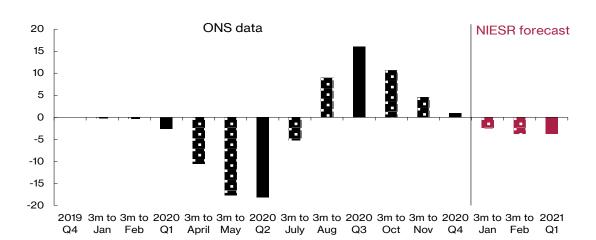


Figure 2 - UK GDP growth (3 months on previous 3 months, per cent)

News in latest ONS data

The latest monthly ONS data were slightly lower than we had anticipated in our January Tracker, confirming GDP grew by 1.2 per cent in December 2020, rather than 1.9 per cent we anticipated. 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)

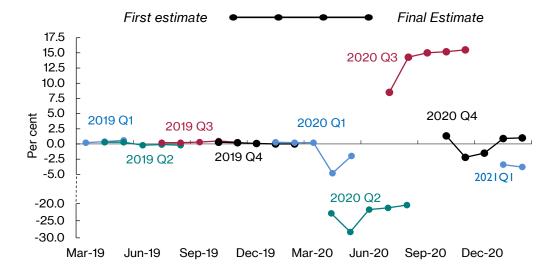


Figure 4 shows a heat map of the data surprises across sectors in the monthly data, relative to last month's GDP Tracker, highlighting the sectors where the surprises are large relative to the volatility of the output data. This month, positive surprises were seen in manufacturing, agriculture, construction, and to a lesser extent – government, and business services. Negative surprises were seen extraction, electricity, distribution and hotels, and water supply.

01/20 02/20 03/20 04/20 05/20 06/20 07/20 08/20 09/20 10/20 11/20 12/20 12/19 0.0 0.0 -0.2 1.2 3.1 -1.2 -2.9 0.4 -0.8 0.6 0.3 2.8 0.4 Business services and finance -2.4 4.5 0.2 0.0 0.1 -0.2 1.1 0.3 1.0 0.3 0.7 -0.3 -1.3 Government 0.7 3.2 2.7 -0.1 2.9 -1.3 Distribution, Hotels and Restaurants -0.1 0.0 -0.1 -1.6 0.5 0.8 0.1 Transport, Storage and Communication -0.1 -0.4 -0.1 2.9 1.9 -0.8 -0.5 -0.7 -0.5 -0.2 0.3 4.1 -0.1 1.2 Manufacturing -0.1 0.2 0.2 2.3 1.3 4.0 0.2 0.1 0.5 0.3 Electricity -0.7 -0.9 3.3 -1.6 -0.6 1.1 -0.4 -0.3 -0.5 -0.7 -1.9 -1.1 1.6 Extraction -0.9 -0.2 -0.2 -2.6 -0.5 -1.3 1.6 -1.1 -1.3 -1.0 0.0 -0.6 -2.0 Water Supply, Sewerage, Waste 0.1 04 -0.5 10 -10 29 0.6 -1.2 0.7 0.5 01 -1.0 Management 0.0 2.5 1.9 2.9 0.8 Construction 0.0 -0.2 -3.1 -0.4 0.5 1.0 0.6 0.3 -1.2 2.1 Agriculture -0.1 0.0 -1.6 -0.1 0.7 0.0 0.5 1.0 2.6 0.5 below expectation above expectation 0

Figure 4 - 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 1.0 per cent in the three months to December, consistent with the forecast in our January Tracker. Growth in those three months was largely underpinned by positive contributions from manufacturing and construction. Our forecast for the first quarter of 2021 is for output to decline by 3.8 per cent.

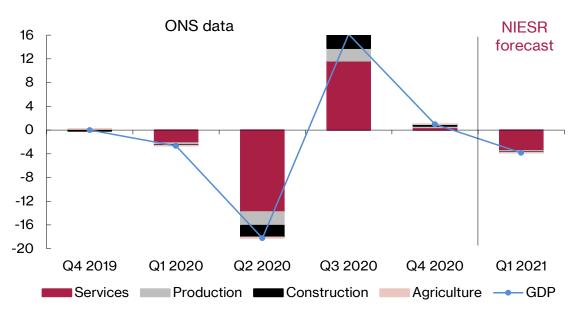
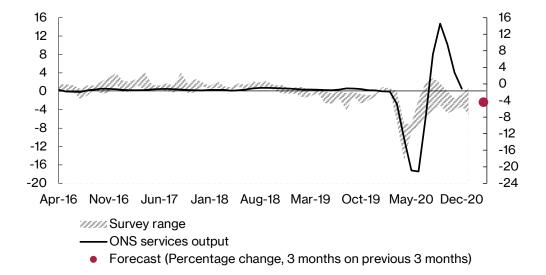


Figure 5 - Contributions to quarterly GDP growth (percentage points)

Services (80 per cent of GDP)

According to the latest ONS data, the services sector grew by 0.6 per cent in the three months to December, in line with our previous forecast of 0.7 per cent. The growth in the services sector was driven by increases in majority of the services sub-sectors, most notably the health sector. Based on recent developments we expect service sector activity to decline by 4.4 per cent in the first quarter of 2021 (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 January, as shown by the swathe of survey indicators in figure 6. The headline business activity balance in the IHS Markit/CIPS UK services PMI came in at 39.5 in January, falling sharply from 49.4 in December and signalled the largest reduction in business activity in the last eight months. The sharp decline in activity was largely attributed to the third national lockdown at the start of the year and the negative impact it had on travel, leisure, and hospitality. Internationally, the JPMorgan Global Services Business Activity Index slowed to 51.6 in January, marginally down again from 51.8 in December.

Production (14 per cent of GDP)

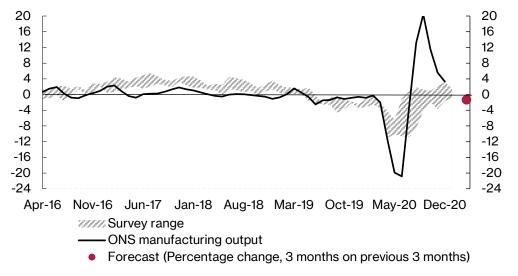
Production output grew by 1.8 per cent in the three months to December, stronger than what we forecast a month ago. The growth in production was principally driven by manufacturing, which continued to recover strongly from the initial Covid-10 shock. We estimate that production will fall by 1.6 per cent in the first quarter of 2021, 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 3.3 per cent in the three months to December. The largest contribution came from the manufacture of transport equipment, which grew 11.5 per cent. Our forecast for the first quarter of 2021 is for manufacturing to decline by 1.4 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.

After rising to a three-year high of 57.5 in December, the IHS Markit/CIPS UK manufacturing PMI fell to a three-month low of 54.1 in January. The positive output in January meant that manufacturing output increased for an eighth consecutive month, despite the slowdown in the rate of expansion. The slowdown was primarily due to lower intakes of new export business. National lockdown, end of the Brexit transition period, and renewed uncertainty at the turn of the year all contributed to the fall in new orders.

The JPMorgan Global Manufacturing Output fell to a three-month low of 53.5 in January, slightly down from 53.8 in December, but remained at one of it is highest recordings over the past three years. 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 5.9 per cent in the three months to December. We now forecast a decline of 1.0 per cent in the first quarter of 2021.

Construction (6 per cent of GDP)

Output in the construction sector grew by 4.6 per cent in the three months to December, a stronger outturn than we had forecast a month ago. The main contributor to this increase was private new housing, which grew by 6.7 per cent. We anticipate output to fall by around 1.4 per cent in the first quarter of 2021.

The IHS Markit/CIPS construction PMI survey suggests that overall output fell for the first time since May 2020. The index came in at 49.2, down from 54.6 in December. Underlying data suggested that commercial activity and civil engineering were the weak performing areas.

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

								011 (2010 100)					
2016=100		Index of			es - Components		Index of	In	dex of Productio Electricity,	n - Components	Water Supply,	Index of	
2016=100	GDP index	Services	Business services and	Government and other	Distribution, Hotels and	Transport, Storage and	Production	Manufacturing	gas, steam and	Mining and	Sewerage and	Construction	Agriculture
			finance	services		Communications		wanuracturing	air conditioning	Quarrying	Waste		
	4000	700					100		conditioning		Management		7
Latest weights	1000	796	339	217	133	108	136	102	15	6	13	61	′
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
April-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 Jul-19	101.4 101.7	101.8 102.1	100.4 101.0	101.5 101.5	102.6 102.8	105.5 106.0	99.0 98.7	98.2 98.4	103.6 100.6	97.3 96.4	102.3 100.8	101.4 102.5	105.9 106.8
Aug-19	101.7	102.1	101.1	102.0	102.6	105.3	97.7	96.9	99.6	98.1	101.1	102.3	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		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		101.8	96.4	100.1	100.2	108.9
Jan-20 Feb-20	101.5 101.2	102.3 102.0	101.1 101.0	103.1 102.6	102.8 102.4	103.5 103.3	97.3 97.4	96.8 97.3	98.9 98.1	96.2 95.4	100.7 99.8	100.2 99.8	108.0 105.1
Mar-20	94.1	94.3	98.5	90.6	87.0	97.6	92.2	90.7	97.8	89.2	100.2	96.2	100.0
Apr-20	76.9	78.9	89.3	76.6	53.8	82.7	74.1	68.0	89.7	87.4	92.6	57.1	89.2
May-20	79.3	80.6	89.0	78.5	60.7	83.3	78.7	74.0	90.7	89.6	92.7	64.4	89.8
Jun-20	86.5	87.1	92.4	82.4	79.9	89.4	86.9	83.4	94.5	96.1	98.1	77.7	91.4
Jul-20 Aug-20	92.3 94.2	92.5 94.6	94.1 94.4	89.8 92.7	93.0 99.7	92.7 92.4	91.6 92.1	89.3 90.6	99.2 99.3	93.1 89.4	99.7 98.8	90.0 93.9	93.7 95.3
Sep-20	95.4	95.8	95.7	96.1	97.6	93.2	92.7	91.6	98.7	86.8	99.9	96.4	96.3
Oct-20	96.0	96.3	96.3	97.2	96.0	95.0	93.5	92.7	98.0	86.8	100.5	97.6	95.8
Nov-20	93.8	93.3	95.6	94.6	85.0	94.0	93.8	93.7	96.4	83.6	100.4	99.3	95.6
Dec-20	94.9	94.9	96.3	96.6	88.7	94.8	94.0	94.0	97.2	82.9	100.5	96.4	95.9
Jan-21 Feb-21	89.9 89.9	89.0 89.0	94.4 94.4	82.8 82.8	84.7 84.7	90.5 90.5	91.7 91.7		93.2 93.2	82.0 82.0	98.8 98.8	95.8 95.8	94.6 94.6
Mar-21	94.1	93.9	96.3	92.0	90.8	94.2	93.4		98.0	86.8	100.5	97.6	95.8
,			55.0										3313
	Percentage cha	nge, 3 months o	on previous 3 mo	nths				1					
Sep-19	0.4	0.6	0.8	0.6	0.2	0.8	-0.6		-2.6	2.4	-0.5	0.2	2.4
Oct-19	0.3	0.5		0.7	0.1	0.6	-0.8		-1.4	3.4	-1.1	-0.6	2.3
Nov-19 Dec-19	0.1 0.0	0.2 0.2	0.0	0.7 0.8	0.0 -0.1	0.3 -0.2	-0.3 -0.3	-0.8 -0.6	1.1 3.4	4.5 -1.9	-1.4 -1.1	-0.7 -1.8	1.8 1.1
Jan-20	-0.2	0.0	0.0	0.8	-0.1	-1.4	-0.9	-0.9	0.8	-3.7	-0.4	-1.0	0.2
Feb-20	-0.3	-0.1	0.2	0.5	-0.2	-1.8	-0.9		-2.7	-5.6		-1.3	-1.3
Mar-20	-2.7	-2.7	-0.7	-3.8	-5.0	-3.9	-2.3	-2.0	-4.8	-4.8	0.5	-1.8	-4.2
Apr-20	-10.6	-10.3	-4.6	-12.6	-20.9	-9.6	-9.7	-11.5	-6.3	-6.9	-2.6	-16.1	-9.7
May-20 Jun-20	-17.7 -18.2	-17.2 -17.4	-8.7 -9.9	-20.4 -19.8	-34.5 -33.5	-15.5 -16.1	-16.1 -16.5	-19.9 -20.9	-6.9 -6.8	-7.6 -2.7	-5.0 -5.8	-27.5 -32.7	-13.4 -13.6
Jul-20	-16.2	-17.4	-4.6	-7.1	-3.9	-6.4	-16.5	-20.9	-0.4	2.5	-5.6 -0.7	-8.3	-6.6
Aug-20	9.1	8.0	1.5	7.8	35.3	4.1	10.4	13.1	5.3	4.7	3.9	20.2	0.5
Sep-20	16.2	14.7	5.0	17.3	49.3	9.0	15.3	20.5	8.1	-1.4	5.3	40.7	5.5
Oct-20	10.7	10.2	4.0	14.1	25.6	5.7	8.2		4.1	-5.7	3.0	24.0	4.5
Nov-20	4.5 1.0	4.1 0.6	2.4	8.7	2.2	2.8 2.0	3.5		0.0	-7.7	1.4 1.0	12.1	2.6
Dec-20 Jan-21	-2.5	-3.3	0.0	3.5 -4.2	-7.1 -11.9	-0.4	1.8	3.3	-1.9	-5.9 -5.5	0.2	4.6	-0.5
Feb-21	-3.7	-4.4	-0.9	-8.9	-7.4	-2.2	-0.9		-3.2	-4.0	-0.9	-1.8	-0.9
Mar-21	-3.8	-4.4	-1.1	-10.7	-3.5	-3.0	-1.6	-1.4	-2.5	-1.0	-1.1	-1.4	-0.8
Sep-19	Percentage cha	inge, month on s	same month in pr 0.6	evious year 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		1.9	1.7	4.9	-0.8		5.5	-2.2	-0.2	-1.3	8.7
Nov-19	0.7	1.2		2.4	0.4	2.9	-1.3		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	1.1	1.0	2.5	0.8	-1.0	-2.4	-3.2	-2.0	-0.8		-0.7	4.5
Feb-20 Mar-20	-0.1 -7.2	0.7 -7.0	0.6 -1.7	1.8 -10.4	0.3 -15.0	-1.0 -6.3	-2.6 -8.9	-3.1 -10.6	0.4 -0.5	-3.7 -13.7	0.2	-3.3 -6.2	1.9 -3.5
Apr-20	-23.9	-22.2	-10.7	-24.2	-47.5	-21.2	-24.5	-30.3	-11.5	-9.7	-7.6	-44.2	-14.6
May-20	-21.6	-20.5	-11.1	-22.5	-40.7	-20.4	-20.7	-24.9	-11.6	-10.1	-8.9	-37.3	-14.7
Jun-20	-14.7	-14.4	-8.0	-18.8	-22.1	-15.3	-12.2	-15.1	-8.8	-1.2	-4.1	-23.4	-13.7
Jul-20	-9.2	-9.4	-6.8	-11.5	-9.5	-12.5	-7.2		-1.4	-3.4	-1.1	-12.2	-12.3
Aug-20 Sep-20	-7.3 -6.1	-7.4 -6.2	-6.6 -5.0	-9.1 -5.9	-2.8 -4.8	-12.3 -12.2	-5.7 -5.6	-6.5 -5.5	-0.3 -0.5	-8.9 -18.3	-2.3 -0.9	-8.1 -6.0	-11.6 -11.2
Oct-20	-5.8	-6.0		-5.0	-6.7	-10.9	-5.4	-5.4	-5.5	-12.4	0.8	-2.6	-12.0
Nov-20	-7.6	-8.7		-8.0	-17.1	-10.5	-3.9		-7.4	-16.1	0.9	-2.0	-12.3
Dec-20	-6.5	-7.2		-6.1	-13.2	-9.9	-3.3		-4.5	-14.0	0.4	-3.8	-11.9
Jan-21	-11.5	-13.0		-19.7	-17.6	-12.5	-5.7		-5.8	-14.7	-1.9 -1.0	-4.4	-12.4
Feb-21 Mar-21	-11.2 0.0	-12.7 -0.4	-6.5 -2.2	-19.3 1.5	-17.3 4.4	-12.4 -3.5	-5.8 1.3		-5.0 0.2	-14.0 -2.7	-1.0	-4.0 1.5	-10.0 -4.2
,	0.0	-0.4	-2.2	1.5	4.4	-0.5	1.3	2.2	0.2	-2.1	0.3	1.5	-4.2
	Percentage cha	nge, month on p	previous month			-		i					
Sep-19	0.0	-0.1		0.1	-0.1	0.9	0.5		-0.4	8.4	-0.3	0.3	0.6
Oct-19	0.3	0.4		0.2	0.4	0.4	0.6		4.5	-6.8	-1.1	-2.2	0.4
Nov-19 Dec-19	-0.4 0.0	-0.3 0.1	-0.4 0.3	0.5 0.1	-0.4 -0.3	-1.5 0.2	-1.2 -0.4		0.4 -2.2	0.5 -3.2	-0.2 0.6	1.1 -1.1	0.1 -0.1
Jan-20	0.0	0.0		0.1	0.6	-1.6	0.1	0.5	-2.8	-0.2	0.6	0.0	-0.1
Feb-20	-0.3	-0.3	-0.1	-0.5	-0.4	-0.2	0.1	0.5	-0.8	-0.8	-0.9	-0.4	-2.7
Mar-20	-7.0	-7.5		-11.7	-15.0	-5.5	-5.3		-0.3	-6.5	0.4	-3.6	-4.9
Apr-20	-18.3	-16.3		-15.5	-38.2	-15.3	-19.6		-8.3	-2.0	-7.6	-40.6	-10.8
May-20 Jun-20	3.1 9.1	2.2 8.1	-0.3 3.8	2.5 5.0	12.8 31.6	0.7 7.3	6.2 10.4	8.8 12.7	1.1 4.2	2.5 7.3	0.1 5.8	12.8 20.7	0.7 1.8
Jul-20 Jul-20	6.7	6.2	1.8	9.0	16.4	7.3	10.4 5.4	7.1	5.0	7.3 -3.1		15.8	2.5
Aug-20	2.1	2.3		3.2	7.2	-0.3	0.5	1.5	0.1	-4.0	-0.9	4.3	1.7
Sep-20	1.3	1.3	1.4	3.7	-2.1	0.9	0.7	1.1	-0.6	-2.9	1.1	2.7	1.0
Oct-20	0.6	0.5		1.1	-1.6	1.9	0.9		-0.7	0.0	0.6	1.2	-0.5
Nov-20	-2.3	-3.1		-2.7	-11.5	-1.1	0.3		-1.6	-3.7	-0.1	1.7	-0.2
Dec-20 Jan-21	1.2 -5.3	1.7 -6.2		-14.3	-4.5	0.9 -4.5	0.2 -2.4		-4.1	-0.8 -1.0	0.1 -1.7	-2.9 -0.6	0.3 -1.4
Feb-21	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Mar-21	4.7	5.4		11.0	7.2	4.0			5.2	5.8		1.9	1.3
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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
2020QI	-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	
2021QI			-3.8		
Average absolute error				0.22	0.08

Notes for editors

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