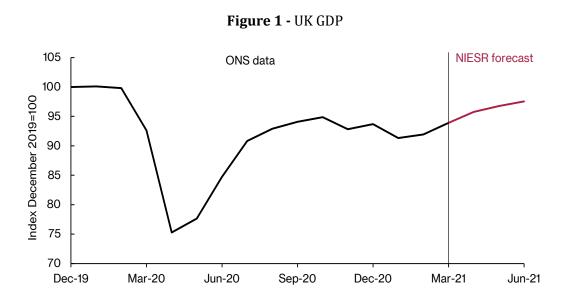


Wednesday, 12th May 2021

Construction and education recovery to be followed by retail and hospitality



Main points

- First quarter GDP growth of 1.5 per cent was in line with our April Tracker forecast. Today's ONS data reported month-on-month growth of 2.1 per cent in March, reflecting the re-opening of schools, the expanded testing and vaccination programme, and rapid growth in the construction sector.
- We now forecast month-on-month growth of 2 per cent in April, and growth of 4.7 per cent in the second quarter compared with the previous quarter. This is likely to be driven by the retail and hospitality sectors, which we anticipate being reopened in line with the government's roadmap.
- While rapid growth in the first part of the year provides a strong basis for 2021, GDP in the first quarter was still nearly 8 per cent below its pre-pandemic level in the final quarter of 2019. In March the hospitality sector was still operating at 41 per cent of its February 2020 level, with the arts and recreation sector at 66 per cent.
- Our full UK forecast for 2021, published on Monday, predicted year-on-year growth of 5.7 per cent, driven by strong consumer spending. There are significant upside and downside risks to this, predominantly related to the continuing spread of Covid-19 globally and to the spending of household savings accumulated under lockdown.

"A contraction of 1.5 per cent is in line with our forecast for the first quarter of the year, underlining the extent to which the economy has adapted to deal with the latest national lockdown. This has provided a better start to 2021 than anticipated at the beginning of the year and we expect it to contribute to a strong rebound in the second quarter as the economy opens up, consistent with our year-on-year growth forecast of 5.7 per cent in 2021. As expected with many children returning to school, the education sector provided a large contribution to growth in March. There were also significant contributions from the retail sector, from construction and from testing and vaccination programmes in the health and social care sector."

Rory Macqueen

Principal Economist - Macroeconomic Modelling and Forecasting

Economic setting

Ahead of today's GDP release optimism for growth this year has been increasing. This week we revised up our full-year 2021 <u>forecasts</u> to 5.7 per cent, from 3.4 per cent in February, driven by the expectation of a smaller fall in first-quarter GDP than we had anticipated earlier in the year. This reflects the success of lockdown and vaccinations in reducing the spread of Covid-19 in the UK.

While, in the early stages of the pandemic, mobility indicators provided a useful indicator of the large falls in economic activity, in recent months activity has 'decoupled' somewhat from mobility, reflecting the adaptation of the economy to lockdowns.

January saw large disruptions to trade reflecting Brexit teething problems, unwinding of pretransition stockbuilding and the new lockdown; these partly unwound in February and March and disruption has not seemed to weigh unduly on output. We have also seen activity in recent months supported by government spending on testing and vaccinating. Further government Covid support announced at the Budget will also have the effect of increasing private sector confidence for the recovery during the second and third quarters of the year.

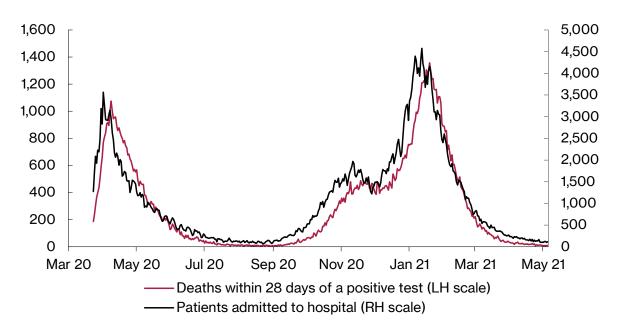


Figure 2.1 – UK daily Covid-19 statistics

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

10 Percentage change from baseline 0 -10 -20 -30 -40 -50 -60 -70 -80 -90 Feb 20 May 20 Nov 20 Aug 20 Feb 21 May 21 Retail and recreation - Workplaces

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.

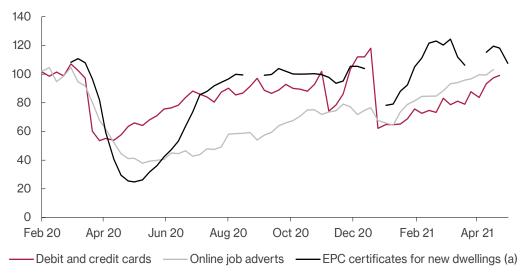


Figure 2.3 – Spending and hiring indicators.

Notes: (a) England and Wales. Debit and credit cards (CHAPSbased): 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.

Covid-19 deaths and infections have continued to fall in the past month and the <u>NIESR Covid Tracker</u> estimates that R-number to be in the range 0.85-1.00. High frequency indicators suggest that economic activity continued to pick up in April, with hospitality businesses among those able to re-open outdoors. Vacancies data and surveys confirm a degree of business optimism, which bodes well for the remaining stages of lifting restrictions. Card spending in the week to 29 April was at 99 per cent of its February 2020 level.

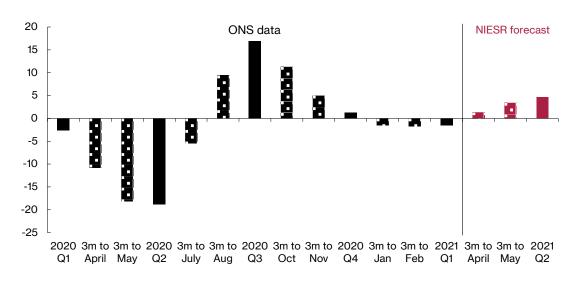


Figure 3 – UK GDP growth (3 months on previous 3 months, per cent)

News in latest ONS data

The ONS data for March were slightly stronger than we forecast in April, with GDP growing by 2.1 per cent month-on-month. Our forecast for a quarterly contraction of 1.6 per cent was accurate.

Figure 4 shows how our short-term forecasts for recent quarters have changed as new information has become available.

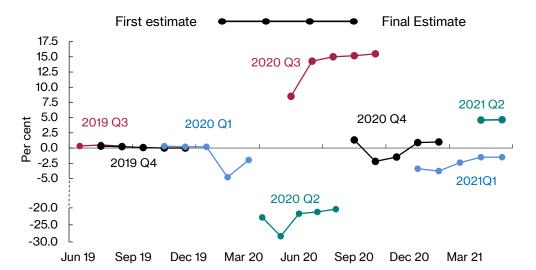
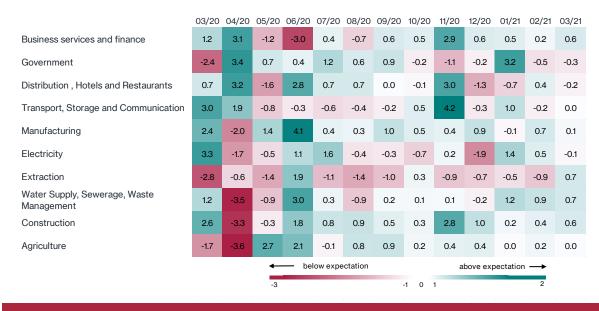


Figure 4 - Evolution of the NIESR quarterly GDP forecast (3 months on previous 3 months, per cent)

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, positive surprises were seen in manufacturing, utilities and distribution, hotels and restaurants. Negative surprises were seen in extraction and government.

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 contracted by 1.5 per cent in the three months to March, compared with the three months previously, exactly in line with our April Tracker forecast. This growth was mainly driven by the education, construction, and wholesale and retail sectors. Our forecast for the second quarter of 2021 is for output to grow by 4.7 per cent.

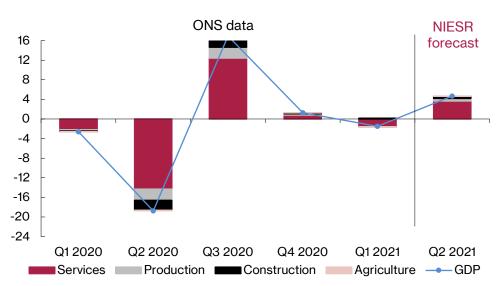
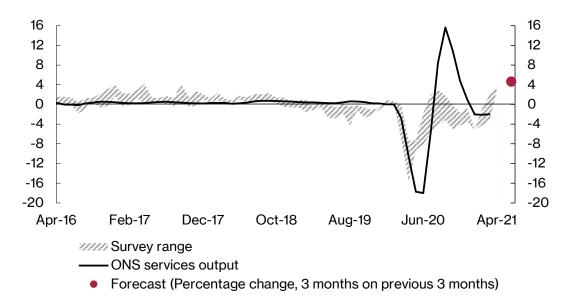


Figure 6 - Contributions to quarterly GDP growth (percentage points)

Services (80 per cent of GDP)

According to the latest ONS data, the services sector shrank by 2 per cent in the three months to March, slightly more than the 1.8 per cent we expected a month ago. Business services and finance was the only of the four sub-sectors to see growth on the previous quarter. Based on recent developments we expect service sector activity to grow by 4.6 per cent in the second quarter of 2021 quarter-on-quarter (figure 7).

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 services activity in April, 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 61.0 in April, up from 56.3 in March, the highest level since October 2013. This was linked to looser pandemic restrictions and optimism for the near-term economic outlook. Internationally, the JPMorgan Global Services Business Activity Index rose to 56.6 in March, its highest since July 2007.

Production (14 per cent of GDP)

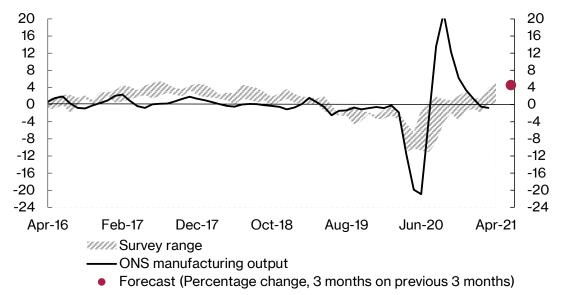
Production output fell by 0.4 per cent in the three months to March, very slightly stronger than the 0.5 fall we forecast a month ago. The largest fall was in mining and quarrying, while water and sewerage grew. We estimate that production will grow by 3.7 per cent in the second quarter of 2021, though 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 declined by 0.8 per cent in the three months to March, very slightly better than the 0.9 per cent decline we forecast in April. Eleven out of the thirteen manufacturing sub-sectors grew in March. Our forecast for the second quarter of 2021 is for manufacturing to grow by 4.6 per cent.

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.

The IHS Markit/CIPS UK manufacturing PMI rose to 60.9 in April, up from 58.9 in March and the highest since July 1994, supported by loosening restrictions, increasing demand and increasing backlog of work. The overall degree of confidence is at its highest level for seven years.

The JPMorgan Global Manufacturing Output rose to 55.8, its best since April 2010.

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 continued to fall, contracting by 2.5 per cent in the three months to March. We now forecast growth of 3 per cent in the second quarter of 2021.

Construction (6 per cent of GDP)

Output in the construction sector grew by 2.6 per cent in the three months to March, faster than we had forecast a month ago. The main contributors were infrastructure and private new housing. We anticipate output to grow by 7.2 per cent in the second quarter of 2021.

The IHS Markit/CIPS construction PMI survey dipped very slightly in April to 61.6, following a six-and-a-half-year record 61.7 in March. This included the steepest pace of civil engineering growth since September 2014.

Table 1 - Summary Table of GDP growth (2018=100)

			Index of Services - Components				Index of Production - Components						
2018=100	GDP index	Index of Services	Business services and finance	Government and other services	Distribution, Hotels and	Transport, Storage and Communications	Index of Production		Electricity, gas, steam and air conditioning	Mining and Quarrying	Water Supply, Sewerage and Waste Management	Index of Construction	Agriculture
Latest weights	1000	796	339	217	133	108	136	102	15	6	13	61	7
Sep-19	101.6	102.1	100.7	102.1	102.5	106.2	98.2	96.9	99.2	106.3		102.5	108.5
Oct-19 Nov-19	101.9 101.5	102.5 102.2	101.1 100.7	102.3 102.8	102.9 102.5	106.6 105.0	98.8 97.6	98.0 96.2	103.7 104.1	99.1 99.6		100.2 101.3	108.9 109.0
Dec-19	101.5	102.3	101.0	102.9	102.2	105.2	97.2	96.3	101.8	96.4		100.2	108.9
Jan-20	101.6	102.4	101.0 100.8	103.3	102.9	104.3 104.2	97.5	96.9 97.4	99.1 98.3	96.5 96.3		99.8 99.2	108.0
Feb-20 Mar-20	101.3 94.0	102.1 94.1	98.4	102.6 89.6	102.5 87.0	104.2 98.5	97.6 92.5	97.4	98.3	96.3		99.2	105.1 100.0
Apr-20	76.4	78.4	89.3	74.4	53.8	83.3	74.2	68.0	89.8	88.4		55.9	89.4
May-20 Jun-20	78.8 86.0	79.9 86.5	89.0 92.2	75.6 79.6	60.8 80.2	84.2 91.0	78.9 87.2	74.0 83.5	90.9 94.7	90.6 97.5		63.5 76.1	89.9 91.3
Jul-20	92.2	92.5	93.8	87.8	94.4	95.2	92.1	89.7	99.5	94.8	100.1	89.6	93.4
Aug-20 Sep-20	94.3 95.5	94.6 96.0	94.2 95.5	91.5 95.6	100.3 97.7	95.2 96.0	93.0 93.5	91.4 92.5	99.7 99.1	91.2 88.8		92.5 94.2	95.2 96.9
Oct-20	96.3	96.8	96.4	96.8	96.4	98.8	94.2	93.6	97.6	89.5		94.9	96.8
Nov-20 Dec-20	94.2 95.1	93.9 95.2	95.8 96.9	94.2 95.1	85.8 89.7	97.8 97.6	95.0 95.0	94.9 94.3	98.8 99.5	85.6 89.2		95.5 93.4	96.2 94.8
Jan-21	92.7	92.5	96.0	91.3	81.7	97.5	93.2	92.0	99.6	86.8		93.4	93.5
Feb-21	93.3	93.0	96.5	91.3	84.0	96.9	94.2	93.3	100.3	84.4		95.9	92.2
Mar-21 Apr-21	95.3 97.2	94.7 96.8	97.8 97.6	93.7 96.2	86.0 93.0	98.5 99.7	95.8 97.1	95.3 96.7	100.1	86.5 88.1		101.5	92.3 93.5
May-21 Jun-21	98.2 99.0	97.8 98.6	97.8 98.1	96.8 97.2	97.2 100.6	100.5 101.0	98.0 98.7	97.9 98.8	100.6 100.7	88.6 88.6	104.4	104.2	94.0 94.1
Percentage change, 3 months on previous 3 months												ا. ـ	
Sep-19 Oct-19	0.4 0.3	0.6 0.5	0.8 0.5	0.6 0.7	0.2	0.8	-0.6 -0.8	-0.7 -1.1	-2.6 -1.4	2.4 3.4		0.2 -0.6	2.4
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 Jan-20	0.0 -0.2	0.2 0.0	0.0 -0.1	0.8	-0.1 -0.1	-0.2 -1.1	-0.3 -0.8	-0.6 -0.8	3.4 0.8	-1.9 -3.6		-1.8 -1.2	1.1 0.2
Feb-20	-0.2	0.0	-0.1 0.1	0.8	-0.1 -0.1	-1.1 -1.3	-0.8 -0.8	-0.8	-2.5	-3.6 -5.2		-1.2 -1.6	-1.3
Mar-20	-2.6	-2.7	-0.9	-4.1	-4.9	-3.1	-2.0	-1.8	-4.6	-4.0		-2.3	-4.2
Apr-20 May-20	-10.8 -18.1	-10.5 -17.7	-4.7 -8.6	-13.7 -22.4	-20.9 -34.5	-9.1 -15.2	-9.6 -16.0	-11.4 -19.9	-6.2 -6.8	-5.9 -6.8		-16.7 -28.1	-9.6 -13.3
Jun-20	-18.8	-18.0	-9.9	-22.3	-33.4	-15.8	-16.4	-20.9	-6.8	-2.4	-5.5	-33.7	-13.6
Jul-20 Aug-20	-5.4 9.3	-5.7 8.4	-4.7 1.3	-8.9 8.1	-3.2 36.4	-5.5 5.8	-2.3 10.9	-3.6 13.6	-0.4 5.4	2.8 5.2		-8.6 20.0	-6.8 0.2
Sep-20	16.9	15.6	4.8	19.7	50.1	10.8	15.9	21.3	8.3	-0.6	4.9	41.3	5.5
Oct-20 Nov-20	11.3 5.0	11.0 4.8	4.0 2.7	16.8 10.7	25.1 1.8	7.2 4.0	8.7 3.8	12.3 6.2	4.0 0.5	-4.7 -6.9		22.9 10.2	5.2 3.6
Dec-20	1.3	1.0	2.0	4.0	-7.0	2.7	2.0	3.4	-0.8	-3.8		2.7	0.8
Jan-21	-1.4	-2.0	0.9	-1.2	-12.6	1.0	0.9	1.3	0.5	-2.9		0.4	-1.5
Feb-21 Mar-21	-1.7 -1.5	-2.1 -2.0	0.6 0.4	-3.1 -3.4	-8.7 -7.4	-0.2 -0.4	-0.1 -0.4	-0.5 -0.8	1.3 1.4	-1.3 -2.5		-0.5 2.6	-3.2 -3.4
Apr-21 May-21	1.3 3.4	1.0 3.0	1.1 1.3	0.2 3.3	2.3 8.2	0.7 2.3	1.4 3.0	1.5 3.7	0.9 0.5	-1.0 1.1	2.1	6.3 9.1	-2.3 -0.2
Jun-21	4.7	4.6	1.1	5.1	15.5	2.8	3.7	4.6	0.5	3.0	1.5	7.2	1.3
Sep-19	1.2	nge, month on s	ame 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	0.4	1.9	1.7	4.9	-0.7	-1.5	5.5	-2.2		-1.3	8.7
Nov-19 Dec-19	0.7 1.0	1.2 1.4	0.0	2.4 2.4	0.4 1.5	2.9	-1.3 -1.7	-2.7 -2.6	5.9 3.4	-0.4 -2.6		0.1	7.6 5.6
Jan-20	0.6	1.2	0.9	2.7	0.9	-0.2	-2.2	-3.1	-1.8	-0.5	2.2	-1.1	4.5
Feb-20 Mar-20	0.0 -7.3	0.8 -7.2	0.4 -1.8	1.8 -11.4	0.4 -15.0	-0.1 -5.5	-2.4 -8.6	-3.0 -10.4	0.6 -0.2	-2.8 -12.6		-3.9 -6.6	1.9 -3.5
Apr-20	-24.4	-22.7	-10.7	-26.4	-47.5	-20.7	-24.4	-30.3	-11.4	-8.7		-45.4	-14.4
May-20 Jun-20	-22.1 -15.2	-21.2 -15.0	-11.1 -8.2	-25.4 -21.6	-40.6 -21.8	-19.5 -13.7	-20.5 -11.9	-24.9 -15.0	-11.4 -8.6	-9.1 0.2		-38.2 -25.0	-14.6 -13.8
Jul-20	-9.3	-15.0	-7.1	-13.5	-8.2	-10.2	-6.7	-8.8	-1.1	-1.7		-12.6	-12.5
Aug-20	-7.2	-7.4	-6.8	-10.3	-2.2	-9.6	-4.8	-5.7	0.1	-7.0		-9.5	-11.7
Sep-20 Oct-20	-6.0 -5.5	-6.0 -5.6	-5.2 -4.6	-6.4 -5.4	-4.7 -6.3	-9.6 -7.3	-4.8 -4.7	-4.5 -4.5	-0.1 -5.9	-16.5 -9.7		-8.1 -5.3	-10.7 -11.1
Nov-20	-7.2	-8.1	-4.9	-8.4	-16.3	-6.9	-2.7	-1.4	-5.1	-14.1		-5.7	-11.7
Dec-20 Jan-21	-6.3 -8.8	-6.9 -9.7	-4.1 -5.0	-7.6 -11.6	-12.3 -20.6	-7.2 -6.5	-2.3 -4.4	-2.1 -5.1	-2.3 0.5	-7.5 -10.1		-6.8 -6.0	-12.9 -13.4
Feb-21	-7.9	-8.9	-4.3	-11.0	-18.0	-7.0	-3.5	-4.2	2.0	-12.4	2.5	-3.3	-12.3
Mar-21 Apr-21	1.4 27.2	0.6 23.4	-0.6 9.3	4.5 29.4	-1.1 72.9	0.0	3.6	4.8	2.0	-4.3 -0.3		5.9 84.6	-7.7 4.6
May-21 Jun-21	24.6 15.1	22.4 14.0	9.9 6.4	28.1 22.1	59.9 25.4	19.3	24.3 13.2	32.3	10.7	-2.2 -9.1	11.7	64.1	4.6
	Percentage cha												
Sep-19 Oct-19	0.0 0.3	-0.1 0.4	-0.4 0.4	0.1 0.2	-0.1 0.4	0.9	0.5 0.6	0.0	-0.4 4.5	8.4 -6.8		0.3 -2.2	0.6 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		-1.1	-0.1
Jan-20 Feb-20	0.1 -0.3	0.1 -0.3	0.0 -0.2	0.4 -0.7	0.7 -0.4	-0.9 -0.1	0.3 0.1	0.6 0.5	-2.7 -0.8	0.1 -0.2		-0.4 -0.6	-0.8 -2.7
Mar-20	-7.2	-7.8	-2.4	-12.7	-15.1	-5.5	-5.2	-6.7	-0.2	-6.1	0.7	-3.4	-4.9
Apr-20 May-20	-18.7 3.1	-16.7 1.9	-9.2 -0.3	-17.0 1.6	-38.2 13.0	-15.4 1.1	-19.8 6.3	-25.2 8.8	-8.5 1.2	-2.2 2.5		-41.6 13.6	-10.6 0.6
Jun-20	9.1	8.3	3.6	5.3	31.9	8.1	10.5	12.8	4.2	7.6	5.9	19.8	1.6
Jul-20 Aug-20	7.2 2.3	6.9 2.3	1.7 0.4	10.3 4.2	17.7 6.3	4.6 0.0	5.6 1.0	7.4 1.9	5.1 0.2	-2.8 -3.8		17.7	2.3 1.9
Sep-20	1.3	2.3 1.5	1.4	4.2	-2.6	0.8	0.5	1.2	-0.6	-3.6 -2.6		1.8	1.8
Oct-20	0.8	0.8	0.9	1.3	-1.3	2.9	0.7	1.2	-1.5	0.8		0.7	-0.1
Nov-20 Dec-20	-2.2 1.0	-3.0 1.4	-0.6 1.1	-2.7 0.9	-11.0 4.5	-1.0 -0.1	0.0	1.4 -0.6	1.2 0.7	-4.4 4.2		0.6 -2.2	-0.6 -1.5
Jan-21	-2.5	-2.8	-0.9	-4.0	-8.8	-0.1	-1.9	-2.4	0.1	-2.7	0.1	0.4	-1.4
Feb-21 Mar-21	0.6 2.1	0.5 1.8	0.5 1.3	0.0 2.6	2.8 2.4	-0.7 1.7	1.1 1.7	1.4 2.1	0.7 -0.2	-2.8 2.5		2.2 5.8	-1.4 0.1
Apr-21	2.0	2.2	-0.2	2.8	8.1	1.2	1.3	1.5	0.0	1.9	0.0	1.6	1.3
May-21 Jun-21	1.1 0.8	1.1 0.9		0.6 0.4	4.5 3.4	0.8 0.5	1.0 0.7		0.5 0.1	0.5 0.0			0.5 0.1
Sair-Ei	0.8	0.9	0.3	0.4	3.4	0.5	0.7	0.9	0.1	0.0	0.1	0.5	0.1

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
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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