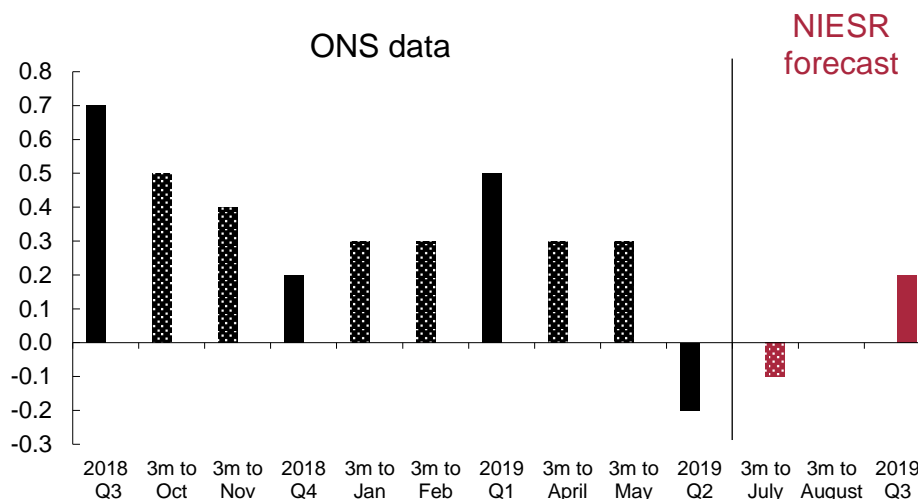


ECONOMIC GROWTH GRINDS TO A HALT

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



Main points

- Latest ONS data published this morning indicates that the UK economy contracted by 0.2 per cent in the second quarter of 2019, partly due to less inventory accumulation than in the first quarter. This outturn was a little weaker than the 0.1 per cent fall in output that we had forecast last month.
- Recent surveys suggest that output was flat in July, with consumer-led service sector expansion being offset by further contractions in manufacturing and construction. If these trends continue, GDP will grow by around 0.2 per cent in the third quarter (figure 1). That would mean that output is flat throughout the middle of this year.
- Nevertheless, quarterly data is likely to be volatile throughout the year and, with little positive momentum in the economy, there is a significant risk that output falls again in the third quarter. In that case the economy would be in a recession that began in April.

“Economic growth in the United Kingdom was negative in the second quarter of 2019 and is set to remain weak in the third quarter in the face of a global slowdown and continuing Brexit-related uncertainty. Our latest estimate implies that there is a significant risk that the economy is already in a recession that began in April, and the clear possibility of a more material downturn should there be a no-deal Brexit.”

Dr Garry Young

Director of Macroeconomic Modelling and Forecasting

Economic background

The short-term outlook for the UK economy continues to be dominated by political and economic uncertainty related to Brexit negotiations, against the background of subdued global demand. Under the assumption that a no-deal Brexit is avoided, the [August 2019 NIESR UK forecast](#) is for GDP growth of around 1 per cent in 2019 and 2020. That forecast builds in a period where output is flat around the middle of this year, consistent with the latest data. But the outlook over the rest of the year is very murky, with risks tilted to the downside largely because of the possibility of a no-deal Brexit that would have a significant negative effect on economic growth.

Forecast news

Figure 2 shows how our short-term forecasts for recent quarters have changed as new information has become available; the average absolute error of our first estimate of quarterly GDP is around 0.2 per cent. The latest monthly data was broadly in line with what we had expected last month, and we have not revised our estimate for growth of 0.2 per cent in the third quarter of 2019.

Figure 2 - Evolution of the NIESR quarterly GDP forecast (3 months on previous 3 months, per cent)

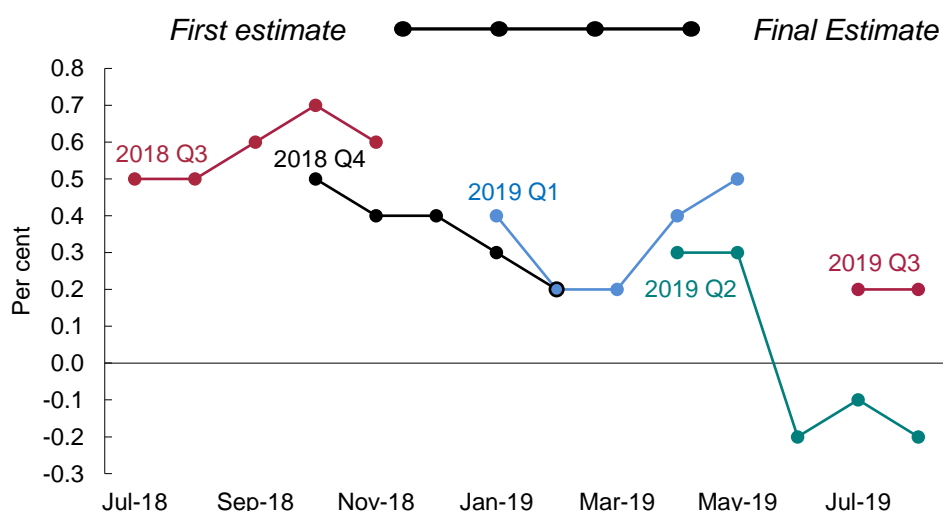
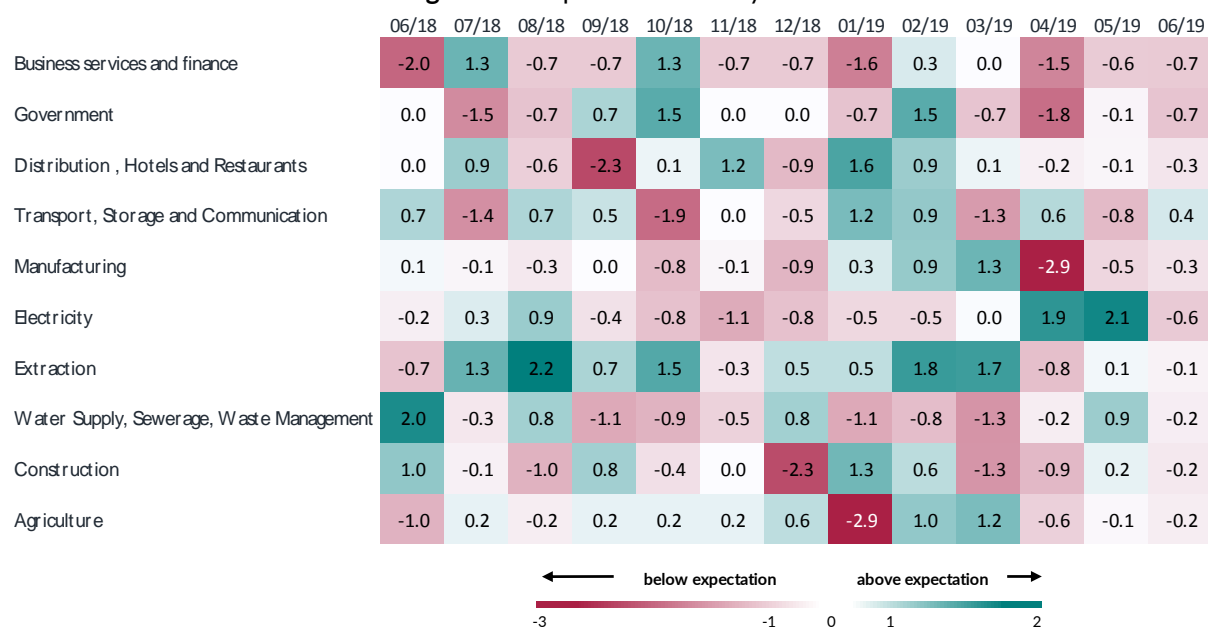


Figure 3 shows a heat map of the data surprises across sectors in the monthly data, highlighting the sectors where the surprises are large relative to the volatility of the output data. This month, only the transport, storage and communication sector showed a positive surprise and all other sectors were modestly weaker than expected.

Figure 3 - Surprises in monthly data

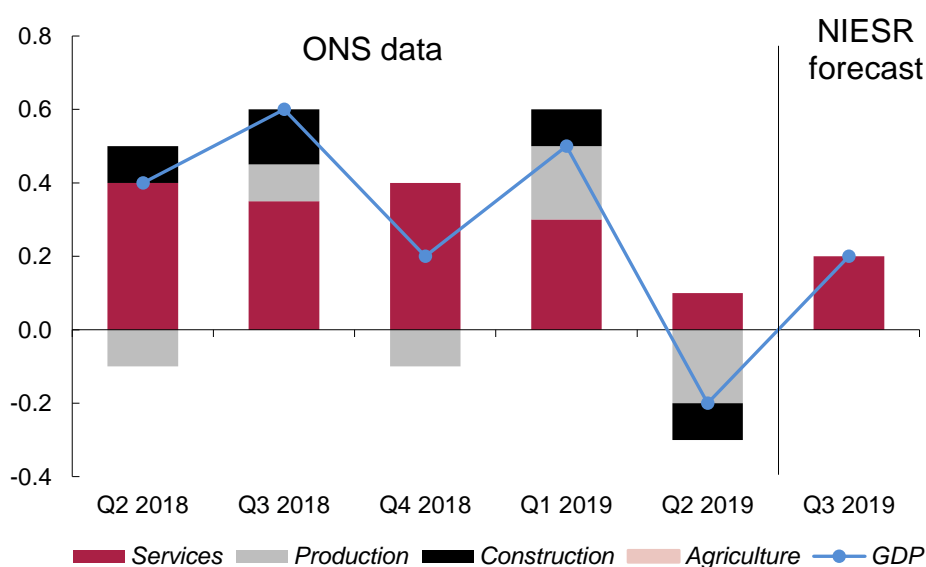


Note: Cells shows forecast errors as a fraction of the standard deviation of errors for each series. Green cells are greater than expected, red cells are less than expected.

Sectoral detail

Economic contraction of 0.2 per cent in the second quarter was mainly driven by the production and construction sectors, with a small positive contribution from the service sector (figure 4). The reduced positive contribution of the service sector points to some persistent underlying weakness in the economy. The forecast for the third quarter is based on slow growth in services and flat production and construction output.

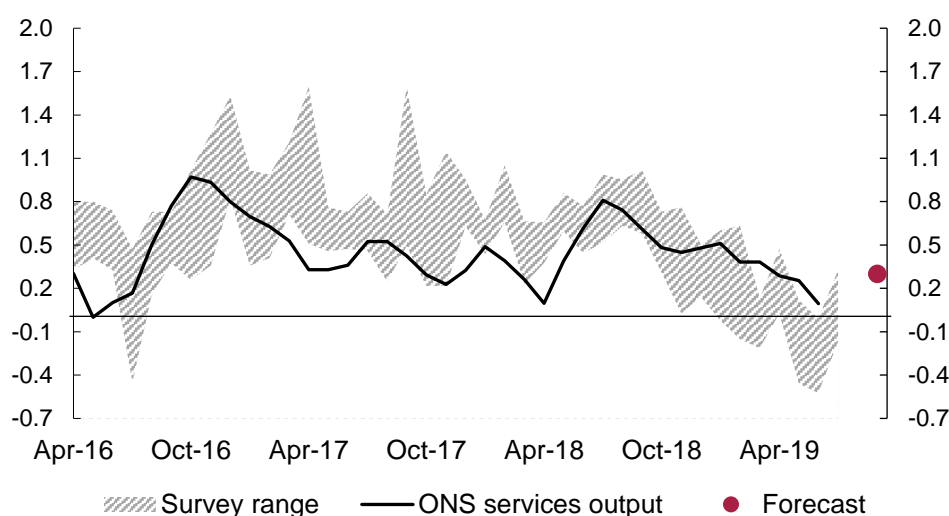
Figure 4 - Contributions to quarterly GDP growth (percentage points)



Services (80 per cent of GDP)

According to ONS, growth in the service sector was 0.1 per cent in the second quarter, 0.1 percentage points lower than our previous estimate. Within the service sector, official data shows that the information and communication sector made the largest positive contribution to growth while 26 out of 51 individual industries contracted. We forecast the service sector to grow by 0.3 per cent in the third quarter, in line with recent survey evidence of slow expansion (figure 5).

Figure 5 - 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.

There was some increase in survey balances in July, as shown by the upward move in the swathe of survey indicators in figure 5.

The headline business activity balance in the IHS Markit/CIPS UK services PMI survey picked up to 51.4 in July from 50.2 in June, the highest reading for nine months but still well below the levels recorded before that. It was reported that the pick-up was driven by consumer services, while business services weakened. The overall increase in the UK services PMI reflected a similar modest increase in the J.P. Morgan Global Services PMI survey.

The EU-collected UK services confidence indicator remained in negative territory for the ninth consecutive month, posting -5.9 in July, albeit less negative than in June. This represents the longest negative run in the indicator history since the global financial crisis.

Production (14 per cent of GDP)

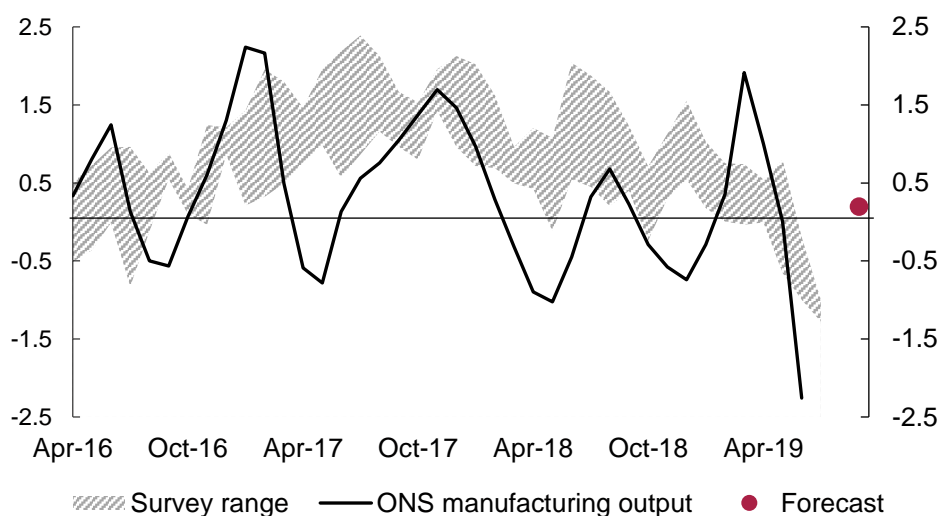
Production output fell by 1.4 per cent in the second quarter. The outturn was weaker than the forecast of a fall of 1.0 per cent that we published last month. We now forecast the production sector to be flat in the third quarter, though output in this sector is volatile and difficult to predict on a 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 percent of GDP)

Output in the manufacturing sector fell by 2.3 per cent in the second quarter, 0.3 percentage points weaker than what we had pencilled in last month. This represents a complete unwinding of the growth recorded in the first quarter. Further weakness in recent surveys imply that the level of manufacturing output will recede from the level recorded in May and June, but growth in the third quarter could nevertheless be positive at around 0.2 per cent reflecting the recovery from the very weak outturn in April.

Figure 6 - 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 turnaround in manufacturing output growth from the first to second quarter was partly due to increased production to meet demand for stocks ahead of the originally expected Brexit date at the end of March that did not need to be repeated in the second quarter. There were also planned factory shutdowns in the motor industry in April that contributed to lower manufacturing output in the second quarter.

The IHS Markit/CIPS UK manufacturing PMI balance was 48.0 in July, unchanged from June. Manufacturers reported that production had been scaled back due to a fall in new orders from both domestic and foreign customers. It was also reported by the CBI in July that order books were perceived to be below normal to the greatest extent since 2010. The below-par level of UK manufacturing activity survey balances was mirrored globally: the J.P.Morgan Global Manufacturing PMI fell slightly to 49.3 in July from 49.4 in March. This decline was focused on the intermediate and investment goods industries.

While much of the weakness of manufacturing output is a global phenomenon, this is overlaid by some UK-specific factors mainly related to Brexit. For example, some respondents to the IHS Markit/CIPS UK manufacturing survey reported that some of their customers were routing supply chains away from UK suppliers in advance of Brexit.

The outlook will depend partly on how demand for inventories and warehouse space to store them evolves in the run-up to the end-October Brexit date. While some respondents to the IHS Markit/CIPS UK manufacturing reported running down stocks built up in advance of the original Brexit date, others were now building further stocks in advance of October. There have also been anecdotal reports that there will be little space for additional stocks at the end of October when warehouses are typically full ahead of Christmas. If this is correct, then a pick-up in production for domestic stockpiling ahead of the October deadline is unlikely.

Despite the fairly gloomy news, many manufacturers maintained a positive outlook in July. The July CBI Industrial Trends survey reported that output volumes in the next three months were expected to recover slightly (+6%) and that new orders over the next three months were expected to pick up again (+10%), with domestic orders (+3%) being broadly flat and export orders (+9%) growing at an above-average pace. But there remained little appetite for investment, the CBI reported that 'the proportion of firms reporting uncertainty about demand as a factor likely to limit capital expenditure was at its highest since January 2013'.

Mining and quarrying (2 percent of GDP)

Mining and quarrying is a small but erratic component of industrial production that can have an influence on overall GDP growth. Output in the second quarter contracted by 0.4 per cent, a little weaker than the 0.2 per cent fall we had forecast last month.

Construction (6 percent of GDP)

Output in the construction sector fell by 1.3 per cent in the second quarter of 2019. This was weaker than we had expected.

The latest reading from the IHS Markit/CIPS construction PMI survey signalled further falls in construction activity, with the headline business activity balance at 45.3 in July, up from 43.1 in June.

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		
<i>Latest weights</i>	1000	793	334	220	133	106	140	101	12	17	10	60	7
Jan-18	103.3	103.1	103.6	100.4	103.1	107.1	102.9	104.3	96.9	101.6	100.4	107.4	101.8
Feb-18	103.0	102.7	103.0	100.4	103.2	106.2	103.1	103.9	100.6	102.0	101.0	106.6	101.0
Mar-18	103.1	103.0	103.4	100.6	103.0	107.1	102.9	103.4	103.4	98.9	101.3	104.5	100.6
Apr-18	103.3	103.3	103.5	100.6	103.8	107.3	102.5	102.8	100.0	105.9	100.3	105.0	100.4
May-18	103.5	103.6	103.5	100.6	105.3	108.0	101.8	103.2	94.7	101.6	101.2	107.1	100.3
Jun-18	103.9	103.8	103.6	100.7	105.4	108.9	102.8	104.2	95.0	102.8	103.1	108.0	100.0
Jul-18	104.2	104.1	103.9	100.7	106.4	109.1	103.3	103.7	98.7	106.2	103.3	108.1	99.9
Aug-18	104.3	104.3	103.9	101.0	106.2	110.1	103.3	103.6	98.4	107.1	103.3	108.1	100.0
Sep-18	104.3	104.2	103.8	101.1	105.3	110.7	102.8	103.6	97.1	103.7	102.8	109.7	100.5
Oct-18	104.5	104.5	104.2	101.4	106.0	110.3	102.5	103.0	97.1	105.8	102.3	109.4	101.1
Nov-18	104.7	104.9	104.4	101.6	107.0	110.7	102.3	103.1	96.5	103.9	102.0	108.7	101.0
Dec-18	104.4	104.7	104.2	101.5	106.0	111.4	101.9	102.5	96.3	104.7	102.3	106.0	100.2
Jan-19	104.9	105.0	104.0	101.7	107.4	111.7	102.6	103.7	96.9	102.8	101.3	109.6	99.7
Feb-19	105.1	105.1	104.2	101.8	107.6	111.9	102.9	104.6	92.1	106.4	101.1	110.4	99.2
Mar-19	105.2	105.2	104.3	101.7	107.7	112.2	104.3	106.2	92.7	108.2	101.9	108.8	99.1
April-19	104.8	105.2	104.1	101.5	107.6	113.1	101.3	101.6	96.1	105.0	102.2	108.2	98.9
May-19	105.0	105.2	104.3	101.5	107.6	112.9	102.7	103.0	98.2	105.5	103.1	108.6	98.9
Jun-19	104.9	105.2	104.3	101.4	107.6	113.3	102.2	102.8	95.9	105.7	103.1	107.8	98.9
Jul-19	105.0	105.3	104.3	101.4	107.8	113.6	102.0	102.6	95.6	105.0	103.2	108.5	98.9
Aug-19	105.1	105.5	104.5	101.3	108.0	113.9	102.2	102.8	96.5	104.3	103.4	108.6	99.0
Sep-19	105.3	105.6	104.7	101.3	108.1	114.3	102.1	102.7	96.9	103.6	103.5	109.0	99.1
Percentage change, 3 months on previous 3 months													
Feb-19	0.3	0.4	0.0	0.3	0.8	1.0	0.0	0.4	-1.9	0.2	-0.8	-0.5	-1.2
Mar-19	0.5	0.4	-0.1	0.2	1.2	1.0	1.0	1.9	-2.8	1.0	-0.8	1.5	-1.4
April-19	0.4	0.3	0.0	0.1	0.8	1.0	0.5	1.0	-3.0	2.6	-0.1	1.0	-1.2
May-19	0.2	0.3	0.1	-0.1	0.6	1.0	0.3	0.0	0.6	1.5	0.8	-0.1	-0.7
Jun-19	-0.2	0.1	0.1	-0.3	0.0	1.0	-1.2	-2.3	3.0	-0.4	1.3	-1.3	-0.4
Jul-19	-0.1	0.1	0.1	-0.2	0.0	0.8	-0.5	-1.3	3.2	-1.1	1.4	-0.8	-0.2
Aug-19	0.0	0.1	0.1	-0.2	0.1	0.8	-0.6	-0.8	0.4	-1.2	0.8	-0.2	0.0
Sep-19	0.2	0.3	0.3	-0.1	0.3	0.7	0.0	0.2	-0.4	-1.0	0.6	0.4	0.1
Percentage change, month on same month in previous year													
Feb-19	2.0	2.3	1.2	1.4	4.3	5.4	-0.2	0.7	-8.4	4.3	0.1	3.6	-1.8
Mar-19	2.0	2.1	0.9	1.1	4.6	4.8	1.4	2.7	-10.3	9.4	0.6	4.1	-1.5
April-19	1.5	1.8	0.6	0.9	3.7	5.4	-1.2	-1.2	-3.9	-0.8	1.9	3.0	-1.5
May-19	1.4	1.5	0.8	0.9	2.2	4.5	0.9	-0.2	3.7	3.8	1.9	1.4	-1.4
Jun-19	1.0	1.3	0.7	0.7	2.1	4.0	-0.5	-1.3	1.0	2.8	0.0	-0.2	-1.1
Jul-19	0.8	1.2	0.4	0.6	1.3	4.1	-1.2	-1.1	-3.1	-1.1	-0.1	0.4	-1.0
Aug-19	0.8	1.1	0.6	0.3	1.7	3.4	-1.0	-0.8	-1.9	-2.6	0.1	0.4	-1.0
Sep-19	1.0	1.4	0.9	0.2	2.7	3.2	-0.6	-0.9	-0.2	-0.1	0.7	-0.6	-1.4
Percentage change, month on previous month													
Feb-19	0.2	0.1	0.2	0.1	0.2	0.2	0.3	0.9	-5.0	3.5	-0.2	0.7	-0.5
Mar-19	0.1	0.1	0.1	-0.1	0.1	0.3	1.4	1.5	0.7	1.7	0.8	-1.4	-0.1
April-19	-0.4	0.0	-0.2	-0.2	-0.1	0.8	-2.9	-4.3	3.7	-3.0	0.3	-0.6	-0.2
May-19	0.2	0.0	0.2	0.0	0.0	-0.2	1.4	1.4	2.2	0.5	0.9	0.4	0.0
Jun-19	-0.1	0.0	0.0	-0.1	0.0	0.4	-0.4	-0.2	-2.3	0.2	0.0	-0.7	0.0
Jul-19	0.1	0.1	0.0	0.0	0.2	0.3	-0.2	-0.2	-0.4	-0.7	0.1	0.6	0.0
Aug-19	0.1	0.1	0.2	0.0	0.2	0.2	0.2	0.2	0.9	-0.7	0.2	0.1	0.1
Sep-19	0.1	0.2	0.2	0.0	0.1	0.4	-0.1	-0.1	0.5	-0.7	0.2	0.4	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 third quarter of 2019, was published in July and will then be updated three times (in August, September and October) before the ONS publishes its first estimate for the third quarter of 2019 in November. 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 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 is the earliest vintage currently available on the ONS website) and in each subsequent three months. These are shown in the table below, 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 0.2 % points. The largest error was for 2019Q2 when our GDP tracker in May pointed to growth of 0.3 per cent, 0.5% points higher than the ONS first estimate of GDP growth that was published today. As shown in figure 2, we correctly revised our estimate of 2019Q2 growth down to -0.2 per cent in June when monthly GDP figures for April indicated a fall in output.

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	0.4	0.6	-0.3	0.1
2017Q2	0.3	0.3	0.4	-0.1	0.0
2017Q3	0.4	0.5	0.4	0.0	0.1
2017Q4	0.5	0.4	0.4	0.1	-0.1
2018Q1	0.1	0.1	0.5	-0.4	0.0
2018Q2	0.4	0.4	0.0	0.4	0.0
2018Q3	0.6	0.7	0.5	0.1	0.1
2018Q4	0.2	0.2	0.4	-0.2	0.0
2019Q1	0.5	0.5	0.2	0.3	0.0
2019Q2	-0.2	-0.2	0.3	-0.5	0.0
2019Q3			0.2		
Average absolute error				0.23	0.05

* Made in the second month of the quarter, 3 months ahead of ONS first estimate

** ONS first estimate - NIESR estimate

Notes for editors

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