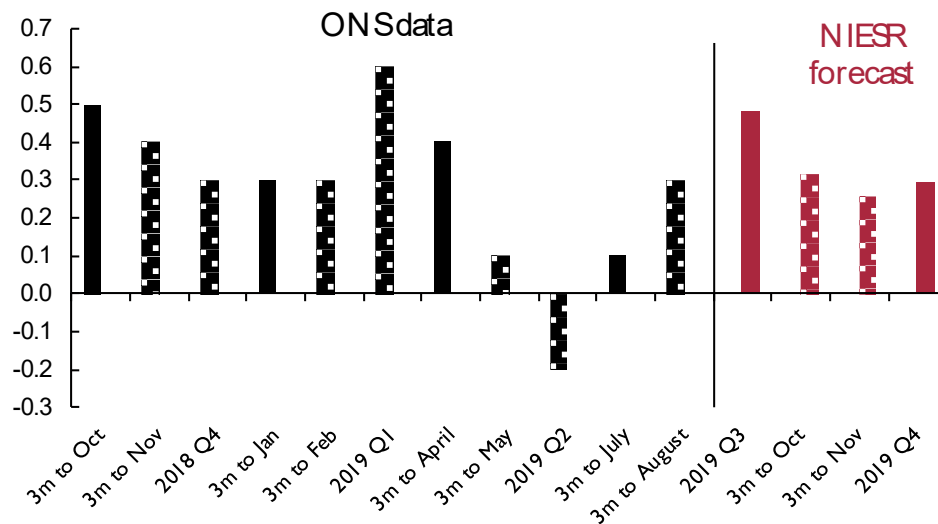


GDP DATA BETTER THAN EXPECTED

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



Main points

- The UK economy is on course to grow by 0.5 per cent in the third quarter of 2019 and by 0.3 per cent in the fourth quarter (figure 1). This would be consistent with GDP growth of 1.3 per cent in 2019 as a whole, down slightly from 1.4 per cent in 2018 and 1.9 per cent in 2017.
- According to new ONS statistics published this morning, the UK economy grew by 0.3 per cent in the three months to August, driven by growth in the services sector. This was a little stronger than we forecast last month, partly reflecting upward revisions to the June and July data. GDP fell by 0.1 per cent in the month of August, in line with our previous forecast.
- Recent surveys suggest that private sector output fell in September, with manufacturing being particularly weak. Nevertheless, even after pencilling in flat output in September, we forecast GDP growth of 0.5 per cent in the quarter as a whole as the economy recovers from the particularly weak second quarter.

"Despite better than expected GDP data, the underlying pace of growth in the United Kingdom is slow. The strongest source of private sector demand is household consumption, driven by real wage growth, but this is not sustainable without a pick-up in productivity growth, and this seems unlikely in the near term."

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 in the middle half of this year, broadly 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.

News in latest ONS data

The latest monthly ONS data was a little stronger than we had expected last month, and we have revised up our estimate for growth in the third quarter of 2019. 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 estimate of quarterly GDP is around 0.2 per cent.

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

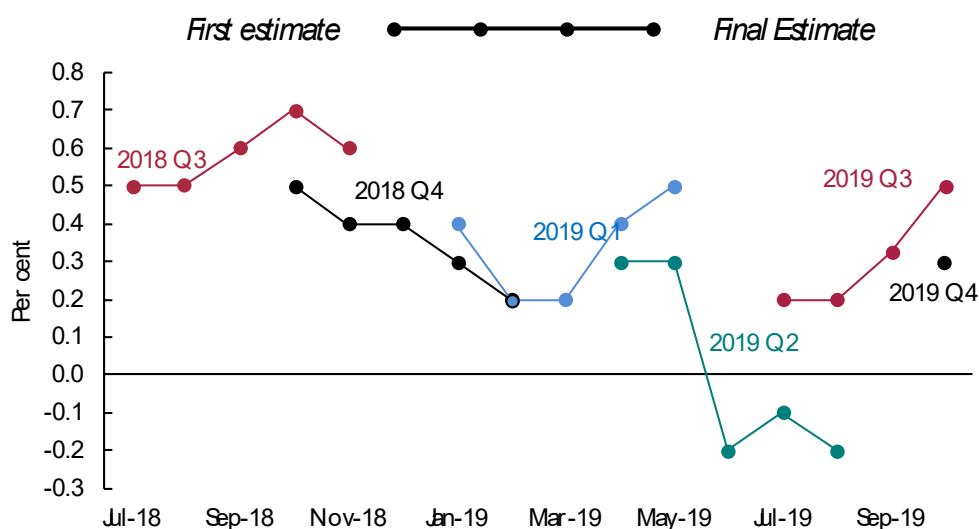
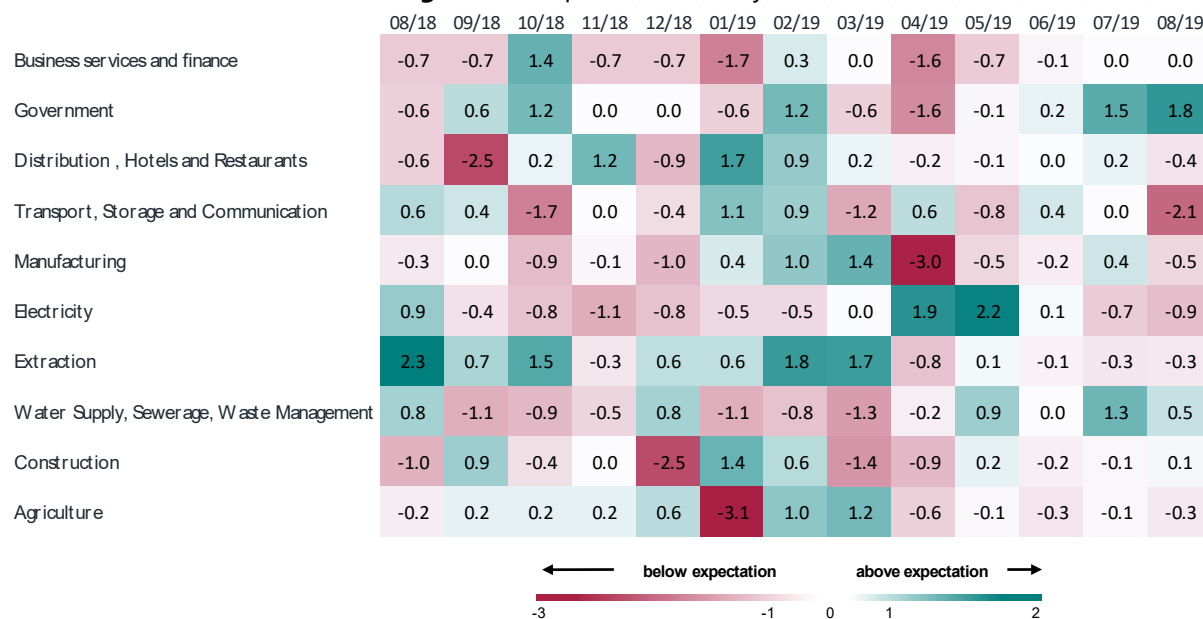


Figure 3 shows a heat map of the data surprises across sectors in the monthly data, highlighting the sectors where the surprises are large relative to the volatility of the output data. This month, the main positive surprises were in the government and water utilities sectors, while the main negative surprise was in the transport, storage and communications sector, where there have been downward revisions in the back data.

Figure 3 - Surprises in monthly data

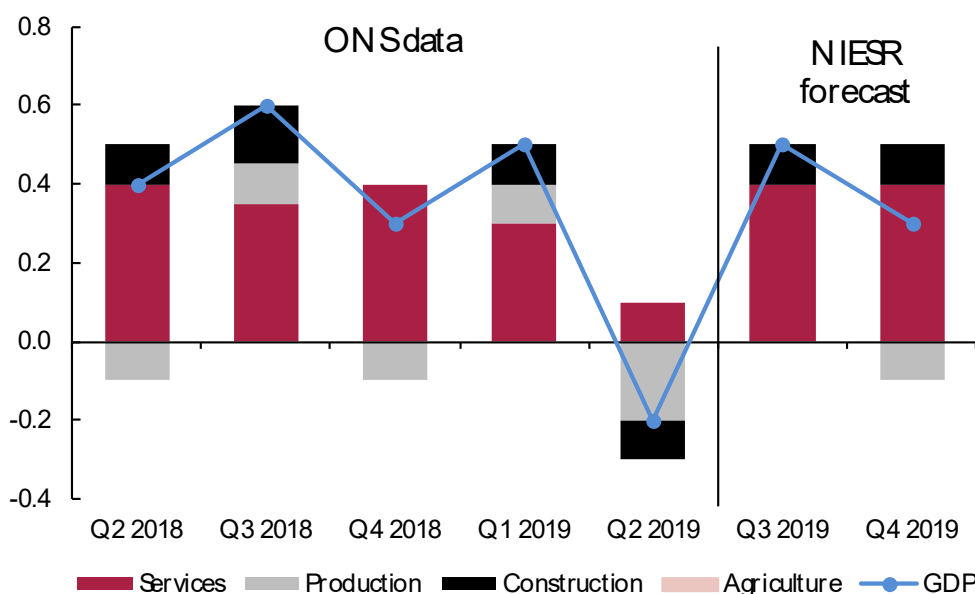


Note: Cells show forecast errors as a fraction of the standard deviation of errors for each series. Green cells are greater than expected, red cells are less than expected.

Sectoral detail

Economic growth of 0.5 per cent in the third quarter is expected to be driven by the services and construction sectors (figure 4). The better than expected performance in the third quarter is mainly confined to the service sector as so does not appear to be inventory driven, as was the case in the first quarter.

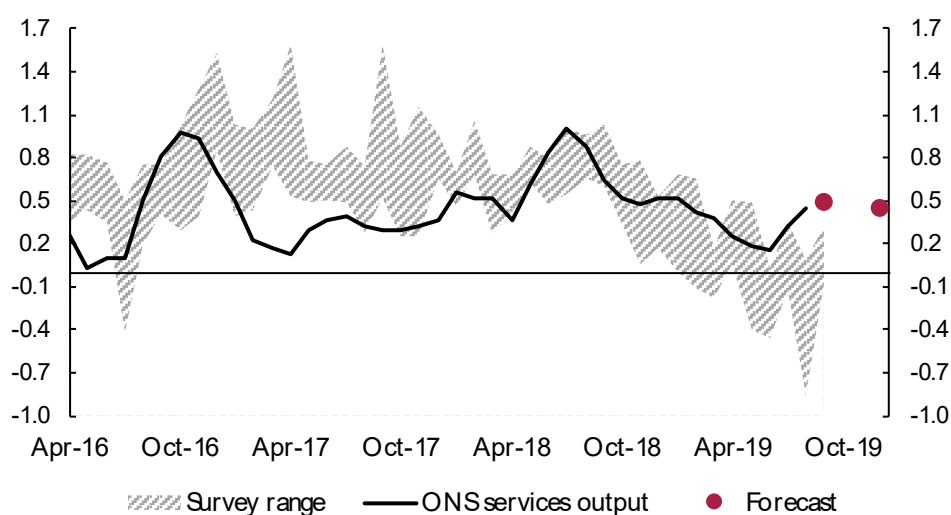
Figure 4 - Contributions to quarterly GDP growth (percentage points)



Services (80 per cent of GDP)

According to ONS, growth in the service sector was 0.4 per cent in the three months to August, 0.2 percentage points higher than our previous estimate. Within the service sector, official data shows that the professional, scientific and technical sector made the largest positive contribution to growth. We forecast the service sector to grow by 0.5 per cent in the third quarter, a little stronger than implied by recent survey evidence, and by 0.4 per cent in the fourth quarter (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.

The survey balances point to further weakness in the private service sector, as shown by the swathe of survey indicators in figure 5. Some of the latest survey balances that are included in the swathe are now more pessimistic than in July 2016 in the immediate aftermath of the EU referendum.

The headline business activity balance in the IHS Markit/CIPS UK services PMI survey dropped to 49.5 in September from 50.6 in August, well below the long-run average of 54.9. It was reported that the decline partly reflected a reduction in export demand and that some clients had switched business to other markets due to concerns about a possible no-deal Brexit. This was consistent with a slight fall in the J.P. Morgan Global Services PMI survey to 51.6 in September from 51.8 in August, one of the lowest readings posted over the past three years.

The EU-collected UK services confidence indicator remained in negative territory for the eleventh consecutive month, posting -15.8 in September. This represents the longest negative run in the indicator history since the global financial crisis.

Production (14 per cent of GDP)

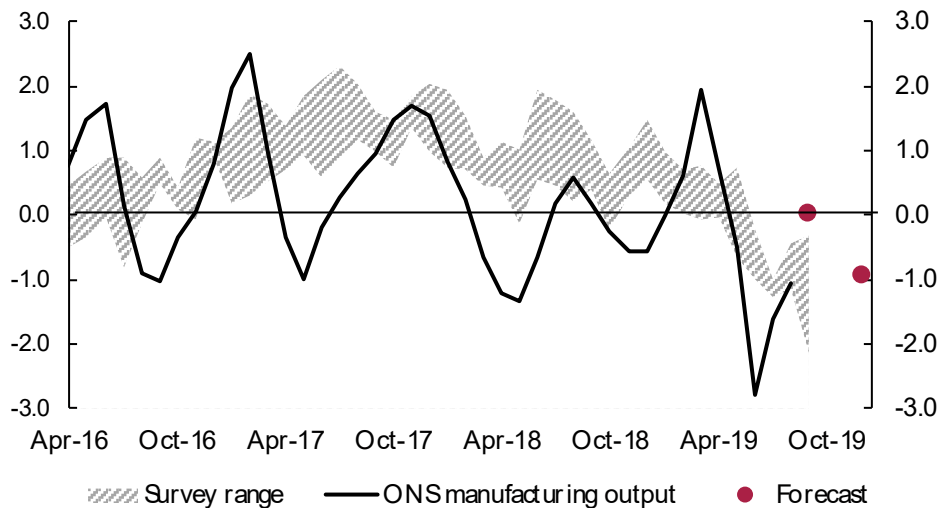
Production output fell by 0.4 per cent in the three months to August, in line with the forecast we published last month. We now forecast the production sector to grow by 0.0 per cent in the third quarter and to contract by 0.7 per cent in the fourth quarter, though output in this sector is volatile and 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)

Within production, output in the manufacturing sector fell by 1.1 per cent in the three months to August, a larger contraction than the 0.6 per cent fall we had forecast last month. Further weakness in recent surveys imply that the *level* of manufacturing output will recede from the level recorded in August, but *growth* in the third quarter could nevertheless pick up to close to zero reflecting the recovery from the very weak outturn in April. Our central forecast is for a contraction of 0.9 per cent in the fourth quarter.

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 IHS Markit/CIPS UK manufacturing PMI balance rose slightly to 48.3 in September from 47.4 in August, but still consistent with output contraction. Manufacturers reported that production had been scaled back due to a fall in new orders from both domestic and foreign customers, with the investment sector weakest. There was also evidence of increased stockbuilding as companies restarted their Brexit preparations. The CBI reported that the

outlook for manufacturing weakened considerably in September and that respondents expected output volumes to fall at a faster pace in the next quarter. The J.P.Morgan Global Manufacturing Output Index was 50.1 in September, staying at roughly the same level as in August.

While much of the weakness of manufacturing output is a global phenomenon, this is overlaid by some UK-specific factors mainly related to Brexit. The NIESR [Business Conditions Forum](#) discussed preparedness for Brexit at its meeting on 14 August, including the likelihood of increased stockbuilding ahead of the 31 October. It was reported that there was no evidence of additional stockbuilding yet, and that this could be because companies were waiting for more clarity ahead of the 31 October deadline or simply because it was too early to stockpile. There were also reports of a shortage in warehouse space for the period around end-October because of seasonal Christmas demand.

Mining and quarrying (1 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 fell by 2.3 per cent in the three months to August, broadly in line with the 2.9 per cent contraction we had forecast last month.

Construction (6 percent of GDP)

Output in the construction sector rose by 0.1 per cent in the three months to August. This was stronger than the 0.3 per cent contraction we had forecast last month.

The latest reading from the IHS Markit/CIPS construction PMI survey signalled further falls in construction activity, with the headline business activity balance down to 43.3 in September from 45.0 in August. A historically steep drop in orders was registered, suggesting further weakness ahead.

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					136					61	7
Latest weights			339	217	136	108		102	15	6	13		
Jan-18	103.0	102.8	102.8	101.8	103.2	104.6	102.4	103.8	95.1	103.8	99.2	106.3	102.8
Feb-18	102.7	102.5	102.4	101.6	103.3	103.7	102.5	103.1	100.9	101.8	100.0	105.0	102.0
Mar-18	102.7	102.8	102.7	101.9	102.9	104.7	102.2	102.6	103.1	98.7	99.4	103.1	101.6
Apr-18	103.1	103.2	103.1	102.0	104.0	105.3	101.6	102.0	98.9	107.7	98.6	104.4	101.4
May-18	103.4	103.6	103.0	102.1	105.6	106.0	101.1	102.3	91.7	106.2	99.2	105.7	101.2
Jun-18	103.8	103.9	103.3	102.3	105.7	106.8	102.1	103.2	93.1	105.7	101.8	106.6	100.9
Jul-18	104.0	104.1	103.5	102.3	106.6	106.8	102.3	102.7	96.4	110.8	102.2	106.6	100.6
Aug-18	104.1	104.3	103.3	102.6	106.3	108.2	102.4	102.8	96.4	111.6	101.6	106.3	100.7
Sep-18	104.1	104.3	103.4	102.6	105.7	109.0	101.7	102.5	94.2	108.1	100.7	107.5	101.3
Oct-18	104.4	104.6	103.8	102.7	106.5	108.6	101.7	102.1	96.5	110.7	100.1	107.8	101.9
Nov-18	104.6	104.9	103.8	102.8	107.7	109.3	101.6	102.4	95.7	107.6	99.5	107.6	102.0
Dec-18	104.3	104.8	103.4	103.0	106.7	110.4	101.0	101.8	94.4	106.6	99.7	105.6	101.0
Jan-19	104.8	105.1	103.3	103.2	107.8	111.0	102.0	103.2	96.0	104.9	98.6	107.8	100.6
Feb-19	105.1	105.2	103.5	103.4	107.9	111.1	102.3	103.9	91.5	107.9	99.1	109.9	100.0
Mar-19	105.1	105.2	103.4	103.6	108.1	111.1	103.2	105.1	90.9	109.2	99.8	108.5	99.9
April-19	104.6	105.2	103.2	103.5	107.9	111.7	100.0	100.6	94.0	105.5	99.2	107.7	99.7
May-19	104.8	105.3	103.4	103.5	107.9	111.6	101.1	101.6	94.9	106.6	100.9	107.9	99.8
Jun-19	105.0	105.5	103.6	103.7	108.0	112.1	101.1	101.3	97.4	106.4	101.1	106.7	99.8
Jul-19	105.3	105.8	104.0	103.8	108.3	112.9	101.2	101.7	96.0	104.3	101.7	108.7	99.8
Aug-19	105.3	105.8	104.0	104.1	108.2	112.0	100.6	101.0	95.3	103.3	102.0	108.9	99.8
Sep-19	105.3	106.0	104.3	104.2	108.3	112.1	100.4	100.8	95.3	103.1	102.1	108.7	99.8
Oct-19	105.5	106.2	104.5	104.2	108.5	112.5	100.1	100.3	95.7	102.4	102.2	109.6	99.9
Nov-19	105.6	106.3	104.7	104.3	108.6	112.7	100.1	100.3	96.7	101.8	102.4	109.8	100.0
Dec-19	105.8	106.5	105.0	104.3	108.7	113.1	100.0	100.1	96.7	101.6	102.6	110.0	100.1
Percentage change, 3 months on previous 3 months													
Feb-19	0.4	0.4	-0.3	0.5	0.8	1.7	0.1	0.6	-1.6	-2.1	-1.0	0.1	-1.2
Mar-19	0.5	0.4	-0.3	0.6	0.9	1.5	1.1	1.9	-2.9	-0.9	-0.6	1.6	-1.4
April-19	0.4	0.3	-0.1	0.5	0.5	1.0	0.3	0.7	-3.4	1.1	0.1	1.6	-1.3
May-19	0.1	0.2	-0.1	0.3	0.5	0.6	-0.3	-0.5	-0.7	0.6	0.8	0.2	-0.7
Jun-19	-0.2	0.2	0.0	0.2	0.0	0.7	-1.7	-2.8	2.8	-1.1	1.2	-1.2	-0.4
Jul-19	0.1	0.3	0.3	0.2	0.1	0.8	-0.7	-1.6	4.3	-1.6	1.9	-0.9	-0.1
Aug-19	0.3	0.4	0.5	0.3	0.2	0.8	-0.5	-1.1	3.2	-2.3	1.6	0.1	0.0
Sep-19	0.5	0.5	0.7	0.4	0.3	0.5	0.0	0.0	0.1	-2.4	1.5	1.2	0.0
Oct-19	0.3	0.4	0.6	0.5	0.3	0.0	-0.8	-0.8	-0.7	-2.7	0.9	1.2	0.0
Nov-19	0.3	0.4	0.6	0.3	0.3	0.1	-0.7	-0.9	-0.3	-2.1	0.6	1.2	0.1
Dec-19	0.3	0.4	0.6	0.2	0.3	0.4	-0.7	-0.9	0.9	-1.6	0.5	1.0	0.2
Percentage change, month on same month in previous year													
Feb-19	2.3	2.6	1.1	1.8	4.5	7.1	-0.2	0.8	-9.3	6.0	-0.9	4.7	-2.0
Mar-19	2.3	2.3	0.7	1.7	5.1	6.1	1.0	2.4	-11.8	10.6	0.4	5.2	-1.7
April-19	1.5	1.9	0.1	1.5	3.8	6.1	-1.6	-1.4	-5.0	-2.0	0.6	3.2	-1.7
May-19	1.4	1.6	0.4	1.4	2.2	5.3	0.0	-0.7	3.5	0.4	1.7	2.1	-1.4
Jun-19	1.2	1.5	0.3	1.4	2.2	5.0	-1.0	-1.8	4.6	0.7	-0.7	0.1	-1.1
Jul-19	1.3	1.6	0.5	1.5	1.6	5.7	-1.1	-1.0	-0.4	-5.9	-0.5	2.0	-0.8
Aug-19	1.2	1.4	0.7	1.5	1.8	3.5	-1.8	-1.8	-1.1	-7.4	0.4	2.4	-0.9
Sep-19	1.2	1.6	0.8	1.5	2.5	2.8	-1.2	-1.6	1.2	-4.6	1.4	1.1	-1.5
Oct-19	1.0	1.5	0.7	1.5	1.9	3.6	-1.6	-1.8	-0.8	-7.5	2.1	1.7	-2.0
Nov-19	1.0	1.3	0.9	1.4	0.8	3.1	-1.4	-2.1	1.0	-5.3	2.9	2.0	-2.0
Dec-19	1.4	1.6	1.5	1.3	1.9	2.5	-1.0	-1.7	2.4	-4.7	2.9	4.2	-0.9
Percentage change, month on previous month													
Feb-19	0.3	0.1	0.2	0.2	0.1	0.1	0.3	0.7	-4.7	2.9	0.5	1.9	-0.6
Mar-19	0.0	0.0	-0.1	0.2	0.2	0.0	0.9	1.2	-0.7	1.2	0.7	-1.3	-0.1
April-19	-0.5	0.0	-0.2	-0.1	-0.2	0.5	-3.1	-4.3	3.4	-3.4	-0.6	-0.7	-0.2
May-19	0.2	0.1	0.2	0.0	0.0	-0.1	1.1	1.0	1.0	1.0	1.7	0.2	0.1
Jun-19	0.2	0.2	0.2	0.2	0.1	0.4	0.0	-0.3	2.6	-0.2	0.2	-1.1	0.0
Jul-19	0.3	0.3	0.4	0.1	0.3	0.7	0.1	0.4	-1.4	-2.0	0.6	1.9	0.0
Aug-19	-0.1	0.0	0.0	0.3	-0.1	-0.8	-0.6	-0.7	-0.7	-1.0	0.3	0.2	-0.1
Sep-19	0.0	0.2	0.3	0.1	0.1	0.1	-0.2	-0.2	0.0	-0.2	0.1	-0.2	0.0
Oct-19	0.1	0.2	0.2	0.1	0.1	0.4	-0.4	-0.5	0.4	-0.7	0.2	0.9	0.1
Nov-19	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.0	1.1	-0.5	0.2	0.1	0.1
Dec-19	0.1	0.2	0.2	0.0	0.1	0.4	-0.2	-0.2	0.0	-0.2	0.2	0.2	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 fourth quarter of 2019, is published today and will then be updated three times (in November, December and January) before the ONS publishes its first estimate for the further quarter of 2019 in February 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 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. 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	0.6	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	0.1	0.5	-0.4	0.0
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	0.3	0.4	-0.2	0.1
2019Q1	0.5	0.6	0.2	0.3	0.1
2019Q2	-0.2	-0.2	0.3	-0.5	0.0
2019Q3			0.2		
Average absolute error				0.23	0.08

* 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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