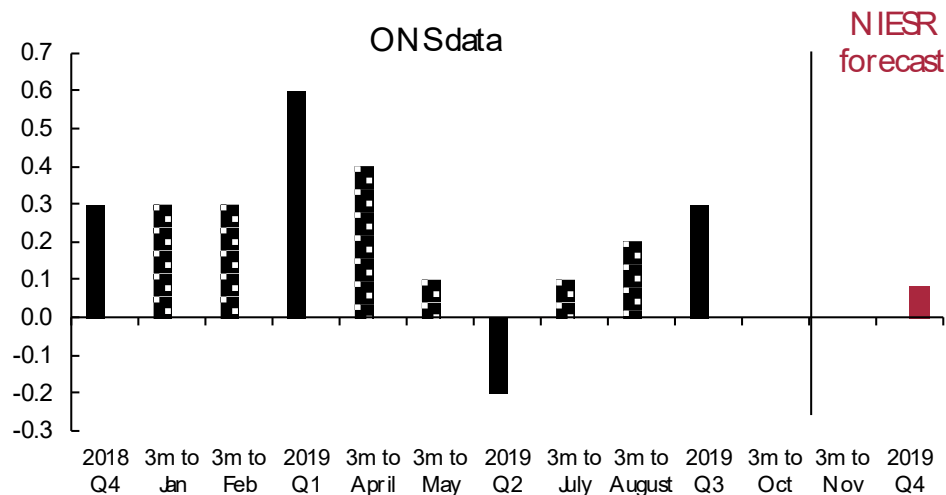


## GROWTH PETERING OUT AT END OF YEAR

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



### Main points

- The UK economy is on course to grow by 0.1 per cent in the fourth quarter (figure 1). This would be consistent with GDP growth of 1.3 per cent in 2019, down slightly from 1.4 per cent in 2018.
- According to new ONS statistics published this morning, the UK economy grew by 0.0 per cent in the three months to October, this was marginally weaker than the 0.1 per cent growth that we had expected last month. Output rose slightly in the production and service sectors, but dropped unexpectedly sharply in construction.
- Recent surveys suggest that service sector output was little changed in November, with contractions in manufacturing and construction.

*“The latest data confirm that economic growth in the United Kingdom is petering out at the end of the year. GDP was flat in the three months to October, and the latest surveys point to further stagnation in November and December. The economy is being held back by weak productivity growth and low investment due to chronic levels of uncertainty. While some uncertainty could be resolved by the outcome of the general election, it is doubtful that this will provide businesses with the clarity needed to invest with confidence.”*

**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, against the background of subdued global demand. The [November 2019 NIESR UK forecast](#) is for GDP growth of 1-1½ per cent in 2019 and 2020, based on the assumption of continued uncertainty as the terms of EU trade remain unchanged but unresolved. That forecast builds in a period where output grows at a subdued pace towards the end of this year, consistent with the latest data.

While some uncertainty might be resolved by the outcome of the general election, it is doubtful that this will provide business with the clarity needed to invest with confidence. This is because the UK's future relationship with the EU is likely to take many years to negotiate even if Brexit is achieved by the end of January.

## News in latest ONS data

The latest monthly ONS data was a little weaker than we had expected last month, and we have revised down slightly our estimate for growth in the fourth 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)

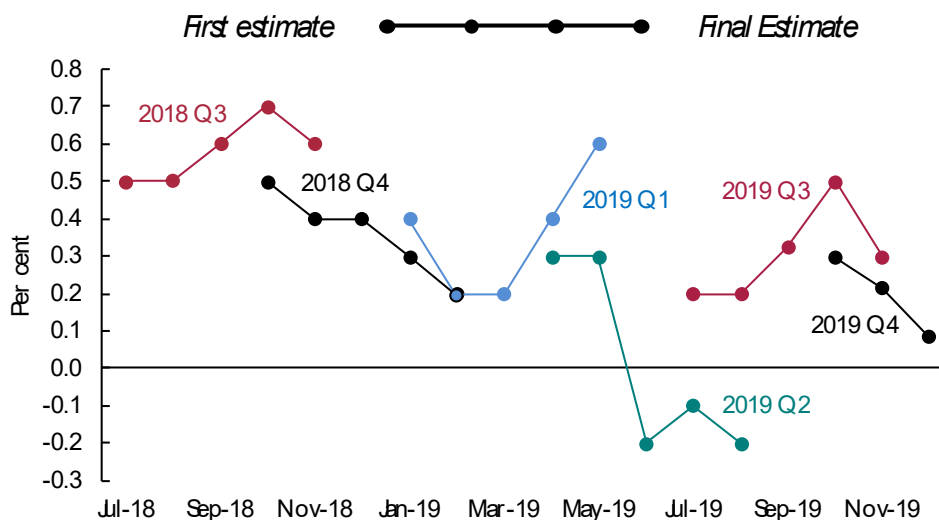


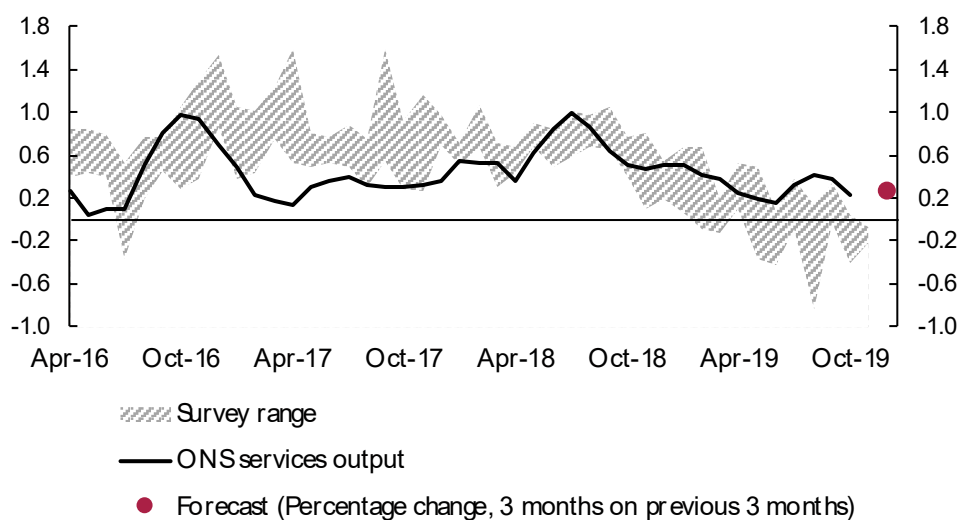
Figure 3 shows a heat map of the data surprises across sectors in the monthly data, highlighting the sectors where the surprises are large relative to the volatility of the output data. This month, there were small positive surprises in manufacturing and electricity output, while there were larger negative surprises in extraction, water supply and construction.



## Services (80 per cent of GDP)

According to ONS, growth in the service sector was 0.2 per cent in the three months to October, in line with our previous estimate. Within the service sector, official data shows that growth was driven by strength in professional, scientific and technical activities, wholesale trade and health, and was partially offset by weakness in office administrative and support services. We now forecast the service sector to grow by 0.3 per cent in the fourth quarter, an upward revision of 0.1 percentage points, reflecting a slightly stronger outturn in October (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 continued stagnation in the private service sector, as shown by the swathe of survey indicators in figure 5. The headline business activity balance in the IHS Markit/CIPS UK services PMI survey fell slightly to 49.3 in November, down from 50 in October, still well below the long-run average of 54.9. It was reported that new orders continued to fall, especially from overseas where Brexit uncertainty continued to undermine international demand. Services activity continues to be weak globally, though there was a slight rise in the J.P. Morgan Global Services PMI survey to 51.6 in November from 51.0 in October.

The EU-collected UK services confidence indicator remained in negative territory for the thirteenth consecutive month, posting -16.7 in November, up from -21.4 in October, still around 20 points below its long-run average. This represents the longest negative run in the indicator history since the global financial crisis. Service sector confidence in the UK is substantially lower than in the EU as a whole where the level of the index was 4.9 in October, only 4 points below its long-run average.

## Production (14 per cent of GDP)

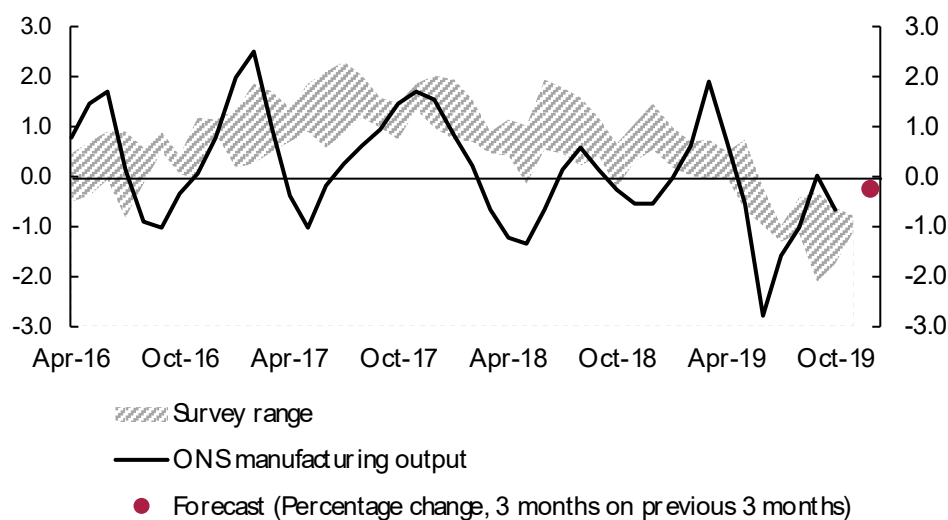
Production output fell by 0.7 per cent in the three months to October, in line with the forecast we published last month. We now forecast the production sector to contract by 0.2 per cent in the fourth quarter, though output in this sector is volatile and difficult to predict on a quarterly basis with 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 per cent of GDP)

Within production, output in the manufacturing sector fell by 0.7 per cent in the three months to October, almost in line with the 0.6 per cent fall we had forecast last month. Our central forecast is for a contraction of 0.3 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 slipped to 48.9 in November from 49.6 in October, consistent with broadly flat output. There was evidence of efforts to scale back production to reduce stocks after the end-October Brexit deadline, that was eventually extended to end-January 2020.

The CBI survey for November was similarly weak. Balance statistics for total and export order were less negative than the multi-year lows reported in October, but remained below their

long-run averages. Stocks of finished goods rose further above “adequate” levels. Looking ahead, manufacturers expect output volumes to be flat.

The J.P. Morgan Global Manufacturing Output Index rose slightly in November to 50.3, a seven-month high. The recovery was focused on the consumer goods sector.

### **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 fell sharply in October and as a result quarterly output fell by 2.6 per cent in the three months to October, less than the 1.0 per cent contraction we had forecast last month. We now forecast a 3.2 per cent contraction in output in the fourth quarter.

### **Construction (6 per cent of GDP)**

Output in the construction sector fell by 0.3 per cent in the three months to October. This was lower than the 1.2 per cent rise we had forecast last month, largely reflecting a sharp fall in output in October. The decrease on the month was driven by private new housing and infrastructure, which fell by 4.7 per cent and 4.3 per cent respectively. ONS reported that the fall in infrastructure was a result of several large businesses changing the timing of some of their regular activity from July to October. We now forecast a 1.6 per cent contraction in output in the fourth quarter.

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 November, up from 44.2 in October, but still signalling contraction. The latest survey also indicated a further sharp drop in new work, apparently reflecting the effects of domestic political uncertainty.

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		
Latest weights	1000	796					136					61	7
			339	217	133	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	103.8	103.8	108.2	113.0	101.2	101.8	95.6	104.5	101.4	108.1	99.7
Aug-19	105.1	105.7	103.8	104.2	108.2	111.8	100.5	101.1	94.6	103.4	101.6	108.3	99.6
Sep-19	105.0	105.7	103.7	104.1	107.8	112.5	100.3	100.7	94.0	105.2	101.7	108.0	99.4
Oct-19	105.1	105.9	103.8	104.2	108.1	112.9	100.4	100.9	96.3	100.8	100.6	105.5	99.5
Nov-19	105.2	106.0	104.0	104.3	108.2	113.0	100.4	100.9	96.7	100.8	101.1	106.6	99.8
Dec-19	105.4	106.1	104.2	104.3	108.3	113.5	100.5	101.0	96.4	101.6	101.4	106.9	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	0.2	0.2	0.1	0.8	-0.7	-1.6	4.2	-1.6	1.8	-1.0	-0.1
Aug-19	0.3	0.4	0.4	0.4	0.2	0.7	-0.5	-1.0	2.8	-2.2	1.4	-0.3	-0.1
Sep-19	0.3	0.4	0.4	0.5	0.1	0.6	-0.1	0.0	-0.7	-1.7	1.2	0.7	-0.2
Oct-19	0.0	0.2	0.2	0.5	0.0	0.1	-0.7	-0.7	-1.0	-2.6	0.2	-0.3	-0.3
Nov-19	0.0	0.2	0.1	0.3	-0.1	0.4	-0.6	-0.6	-0.2	-2.4	-0.2	-0.9	-0.1
Dec-19	0.1	0.3	0.2	0.2	0.1	0.6	-0.2	-0.3	1.8	-3.2	-0.5	-1.6	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	0.3	1.5	1.5	5.8	-1.1	-0.9	-0.8	-5.7	-0.8	1.4	-0.9
Aug-19	1.0	1.3	0.5	1.6	1.8	3.3	-1.9	-1.7	-1.9	-7.3	0.0	1.9	-1.1
Sep-19	0.9	1.3	0.3	1.5	2.0	3.2	-1.4	-1.8	-0.2	-2.7	1.0	0.5	-1.9
Oct-19	0.7	1.2	0.0	1.5	1.5	4.0	-1.3	-1.2	-0.2	-8.9	0.5	-2.1	-2.4
Nov-19	0.6	1.0	0.2	1.4	0.5	3.4	-1.2	-1.5	1.1	-6.3	1.6	-0.9	-2.2
Dec-19	1.0	1.3	0.8	1.2	1.5	2.8	-0.5	-0.8	2.1	-4.7	1.7	1.3	-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	0.2	0.1	0.2	0.8	0.1	0.5	-1.8	-1.8	0.3	1.3	-0.1
Aug-19	-0.2	-0.1	0.0	0.4	0.0	-1.1	-0.7	-0.7	-1.0	-1.1	0.2	0.2	-0.1
Sep-19	-0.1	0.0	-0.1	-0.1	-0.4	0.6	-0.2	-0.4	-0.6	1.7	0.1	-0.3	-0.2
Oct-19	0.1	0.2	0.1	0.1	0.3	0.4	0.1	0.2	2.4	-4.2	-1.1	-2.3	0.1
Nov-19	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.4	0.0	0.5	1.0	0.3
Dec-19	0.2	0.2	0.2	0.0	0.1	0.4	0.1	0.1	-0.4	0.8	0.3	0.3	0.3

## 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, was published in October and will then be updated three times (in November, December and January) before the ONS publishes its first estimate for the fourth 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 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 0.2 % 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.



**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	0.1	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	0.3	0.3	0.2	0.1	0.0
2019Q4			0.2		
Average absolute error				0.22	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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