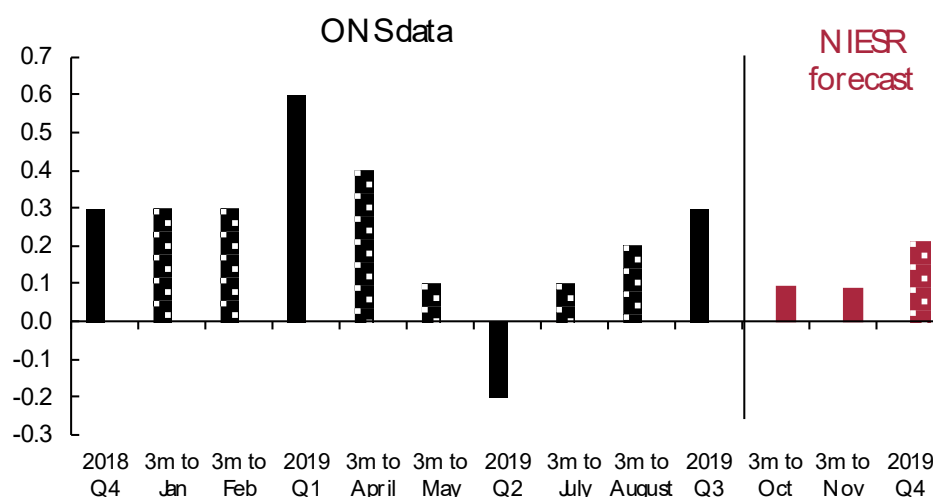


OUTPUT STAGNATING AFTER MID-YEAR REBOUND

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



Main points

- The UK economy grew by 0.3 per cent in the third quarter of 2019 and is on course to grow by 0.2 per cent in the fourth quarter (figure 1). This would be consistent with GDP growth of 1.2 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 0.3 per cent in the third quarter, driven by growth in the services sector. This was a little weaker than we had forecast last month, partly reflecting downward revisions to the July and August data. GDP fell 0.1 per cent in the month of September, the second consecutive monthly fall, slightly weaker than our previous forecast.
- Recent surveys suggest that private sector output was flat in October. Nevertheless, we are expecting some growth in public sector output and so are forecasting growth of 0.2 per cent in the fourth quarter.

"The latest data confirm that the underlying pace of growth in the United Kingdom is slow, reflecting weak business investment growth. GDP fell slightly in August and September and the latest surveys point to further stagnation at the end of the year. The economy is being held back by weak productivity growth and low investment due to chronic levels of uncertainty."

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 exit 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.

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 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)

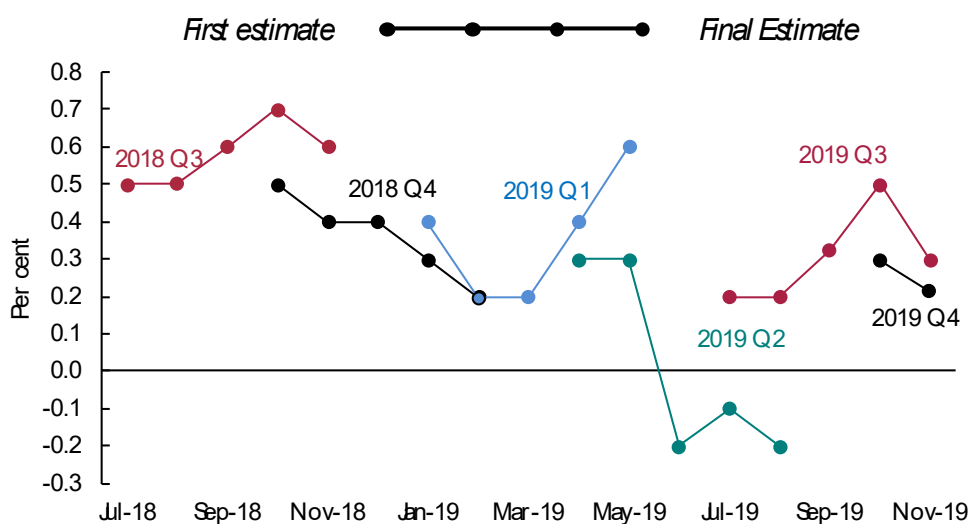
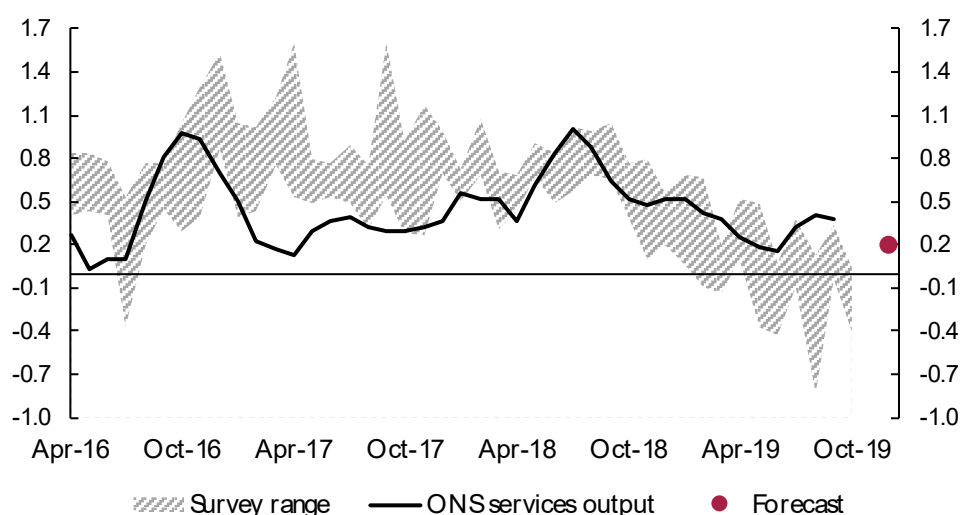


Figure 3 shows a heat map of the data surprises across sectors in the monthly data, highlighting the sectors where the surprises are large relative to the volatility of the output data. This month, the main positive surprises were in the electricity and extraction sectors, while the main negative surprise was in the business services and finance sector, where there was a downward revision to the August data.

Services (80 per cent of GDP)

According to ONS, growth in the service sector was 0.4 per cent in the three months to September, 0.1 percentage points lower than our previous estimate. Within the service sector, official data shows that the information and communication sub-sector made the largest positive contribution to growth, with motion pictures and computer programming showing significant strength. We now forecast the service sector to grow by 0.2 per cent in the fourth quarter, a downward revision of 0.2 percentage points (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 rose slightly to 50.0 in October, up from 49.5 in September, still well below the long-run average of 54.9. It was reported that while output was unchanged, as businesses worked on existing contracts, new orders continued to fall, especially from overseas where Brexit uncertainty continued to undermine international demand. This was consistent with a slight fall in the J.P. Morgan Global Services PMI survey to 51.0 in October from 51.4 in September, the lowest reading since early 2016.

The EU-collected UK services confidence indicator remained in negative territory for the twelfth consecutive month, posting -21.4 in October, down from -15.8 in September, and around 25 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 3.7 in October, only 6 points below its long-run average. Consistent with the PMI indicator, the indicator for

expected demand over the next three months had fallen sharply to -21.5 in October, well below its long-term average and the lowest reading by far across the EU.

Production (14 per cent of GDP)

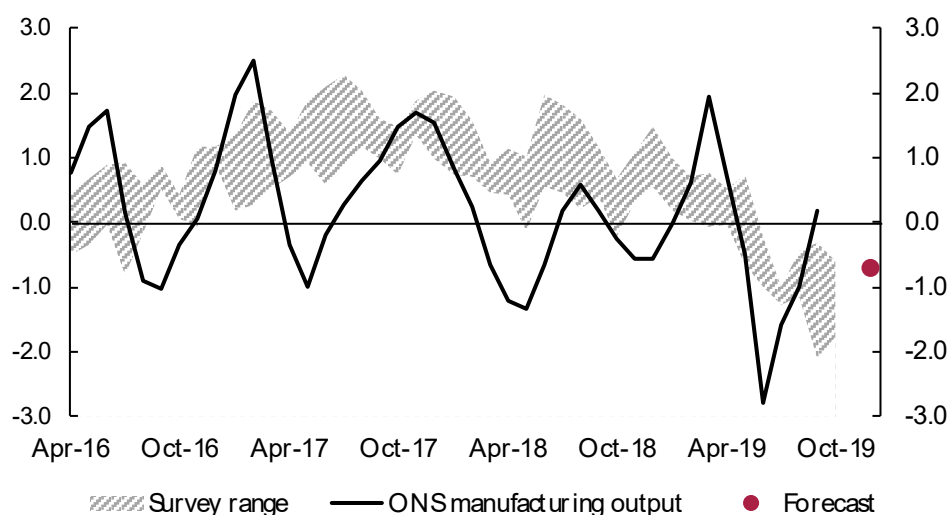
Production output fell 0.1 per cent in the three months to September, 0.1 percentage point weaker than the forecast we published last month. We now forecast the production sector to contract by 0.1 per cent in the fourth quarter, though output in this sector is volatile and difficult to predict on a 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 was flat in the three months to September, in line with what we had forecast last month. Our central forecast is for a contraction of 0.7 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 to 49.6 in October from 48.3 in September, consistent with broadly flat output. There was evidence of increased stockbuilding ahead of the end-October Brexit deadline, that was eventually extended to end-January 2020.

It was reported that domestic orders had continued to fall, but that there had been a mild improvement in overseas sales due to EU-continent based clients bringing forward purchases ahead of the end-October Brexit deadline.

The J.P.Morgan Global Manufacturing Output Index rose slightly in October and output in the investment goods sector rose for the first time in eleven months.

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 picked up quite sharply in September and as a result quarterly output fell by 1.7 per cent in the three months to September, less than the 4.6 per cent contraction we had forecast last month. We now forecast a 1.0 per cent contraction in output in the fourth quarter.

Construction (6 per cent of GDP)

Output in the construction sector rose by 0.7 per cent in the three months to September. This was lower than the 1.6 per cent rise we had forecast last month, largely reflecting downward revisions to the July and August data. We now forecast a 1.2 per cent expansion in output in the fourth quarter.

Within the official output data there is a noticeable difference between relatively robust growth in public sector construction activity and weaker activity in the larger private sector. For example, public sector new housing is up 9.4 per cent in the latest three months compared with a year earlier, whereas private sector new housing is up by 2.3 per cent over the same period. Similarly, in repair and maintenance, public housing is 1.3 per cent higher in the latest three months compared with a year earlier, while private housing is down by 6.6 per cent over the same period.

The contrast between public and private sector activity may partly explain the relative weakness in survey information. The latest reading from the IHS Markit/CIPS construction PMI survey signalled further falls in construction activity, with the headline business activity balance at 44.2 in October, up from 43.3 in September but still signalling contraction. The latest survey also indicated a sharp drop in new work.

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	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	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	112.1	100.3	101.1	95.3	105.2	101.7	108.0	99.4
Oct-19	105.2	105.8	103.8	104.2	108.2	112.5	100.5	100.6	96.9	103.9	101.9	109.1	99.2
Nov-19	105.3	105.9	104.0	104.2	108.3	112.6	100.6	100.7	97.2	102.9	102.0	109.2	99.2
Dec-19	105.5	106.1	104.2	104.2	108.3	113.1	100.5	100.5	97.3	103.1	102.2	109.9	99.3
Percentage change, 3 months on previous 3 months													
Feb-19	0.3	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	0.6	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	0.2	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	0.4	-0.1	0.2	-0.3	-1.7	1.2	0.7	-0.2
Oct-19	0.1	0.2	0.2	0.5	0.0	-0.1	-0.7	-0.6	-0.4	-1.6	0.6	0.8	-0.4
Nov-19	0.1	0.1	0.1	0.3	-0.1	0.1	-0.4	-0.6	0.6	-0.7	0.5	1.0	-0.4
Dec-19	0.2	0.2	0.2	0.2	0.2	0.4	-0.1	-0.7	2.1	-1.0	0.5	1.2	-0.3
Percentage change, month on same month in previous year													
Feb-19	2.4	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	2.4	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	1.1	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	1.2	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	2.8	-1.4	-1.4	1.2	-2.7	1.0	0.5	-1.9
Oct-19	0.8	1.1	0.0	1.4	1.6	3.6	-1.1	-1.5	0.4	-6.2	1.8	1.2	-2.6
Nov-19	0.7	1.0	0.2	1.4	0.5	3.0	-1.0	-1.6	1.6	-4.4	2.6	1.5	-2.7
Dec-19	1.1	1.2	0.8	1.2	1.5	2.5	-0.5	-1.3	3.1	-3.3	2.5	4.0	-1.7
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	0.1	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	0.3	-0.2	0.0	0.7	1.7	0.1	-0.3	-0.2
Oct-19	0.2	0.1	0.1	0.1	0.3	0.4	0.2	-0.5	1.6	-1.3	0.2	1.0	-0.2
Nov-19	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.4	-0.9	0.2	0.1	0.0
Dec-19	0.1	0.2	0.2	0.0	0.1	0.4	-0.1	-0.2	0.0	0.2	0.2	0.6	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, was published last month 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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