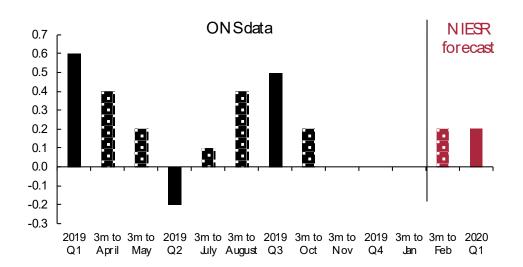


UK REMAINS ON COURSE FOR 0.2 PER CENT GROWTH IN 2020 Q1, BUT OUTBREAK OF THE CORONAVIRUS POSES A MAJOR THREAT TO THE ECONOMIC OUTLOOK

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



Main points

- The UK economy remains on course to grow by 0.2% in first quarter of 2020 (figure 1.)
- According to new ONS statistics published this morning, the UK economy expanded by 0.0 per cent in the three months to January, consistent with what we had forecast last month.
- Output also stagnated in January itself, with services growth being offset by declines in production and construction.

"Economic activity in the UK appears to have been picking up at the beginning of the year. But the outbreak of the Coronavirus poses a major threat to the economic outlook. With supply chain headwinds now arising as a result of the outbreak, there are substantial downside risks to the near-term outlook."

Dr Kemar Whyte

Senior Economist - Macroeconomic Modelling and Forecasting

Economic background

The post-election boost to business confidence in the UK has softened in February, partly due to COVID-19 related disruptions. With no clear indication that the disruption will come to halt soon, the gains made by the major sectors at the start of the year could quickly dissipate. In response to this outbreak, the Bank of England has moved today to cut interest rates and the Chancellor is likely to announce fiscal measures to alleviate the possible economic effects of the coronavirus. With elections settled and Britain already officially out of the EU, the Chancellor now has a chance in today's budget to build for the future with public investment. However, the process may not yield immediate benefits and may also be hampered if he decides to be constrained by the fiscal rules. Further constraints could be realised if he allows the economic downturn likely to emanate from the effects of the Coronavirus to limit his room for manoeuvre. A better approach could be to move towards plans to build up net worth in the public sector balance sheet instead of focusing on the short-term agenda of balanced budgets. The <u>February 2020 NIESR UK forecast</u> was for GDP growth of 1½ per cent in 2020 and 2021, unchanged from 2019, though the recent outbreak and spread of the coronavirus mean that the risks to this forecast are now firmly to the downside.

News in latest ONS data

The latest monthly ONS data was broadly consistent with our expectations, with data confirming growth of 0.0 per cent in the three months to January. 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.

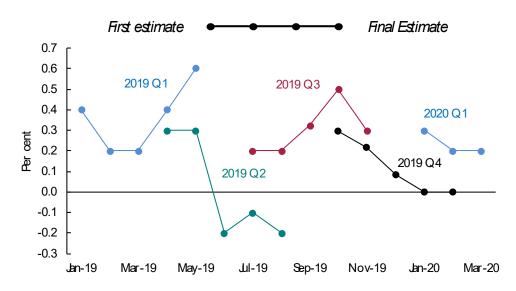


Figure 2 - Evolution of the NIESR quarterly GDP forecast (3 months on previous 3 months, per cent)

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 negative surprises in electricity, private sector services, and construction. Positive surprises were seen in agriculture, government, water supply, sewerage, waste management, and extraction.

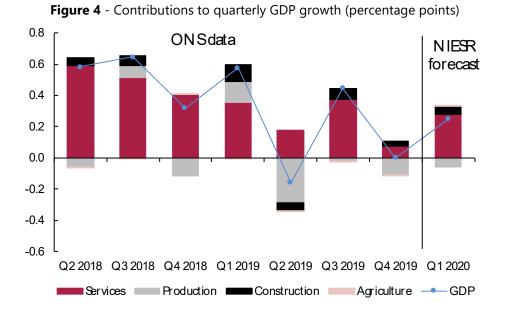
			001			,	aata						
	01/19	02/19	03/19	04/19	05/19	06/19	07/19	08/19	09/19	10/19	11/19	12/19	01/20
Business services and finance	-1.8	0.4	0.0	-1.7	-0.7	-0.1	0.0	0.0	-1.3	0.0	-1.7	0.7	-0.3
Government	-0.7	1.3	-0.6	-1.7	-0.1	0.2	1.6	2.0	-1.0	0.2	0.8	0.8	1.1
Distribution, Hotels and Restaurants	1.8	1.0	0.2	-0.2	-0.1	0.0	0.2	-0.4	-0.8	-0.1	-1.1	-1.3	0.5
Transport, Storage and Communication	0.9	0.7	-0.9	0.5	-0.6	0.3	0.0	-1.7	0.3	0.0	-2.3	1.3	-1.9
Manufacturing	0.4	1.0	1.5	-3.2	-0.6	-0.2	0.5	-0.6	0.2	0.6	-1.6	-0.1	0.3
Electricity	-0.5	-0.5	0.0	1.8	2.1	0.1	-0.6	-0.8	0.4	0.5	-0.1	-0.6	-2.5
Extraction	0.5	1.6	1.5	-0.7	0.1	-0.1	-0.3	-0.2	1.0	-1.6	0.7	-1.6	0.8
Water Supply, Sewerage, Waste Management	-1.0	-0.8	-1.3	-0.2	0.8	0.0	1.3	0.5	0.1	-1.6	-0.9	0.8	1.3
Construction	1.3	0.6	-1.4	-0.9	0.2	-0.2	-0.1	0.1	-0.1	-2.5	0.6	-0.4	-0.6
Agriculture	-3.0	1.0	1.2	-0.6	-0.1	-0.3	-0.1	-0.3	-0.5	0.5	-0.4	-1.7	1.6
			+		below e	expectation	on	above expectation -			→		
			-3		-		-1	D 1			2		

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.

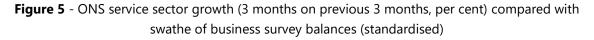
Sectoral detail

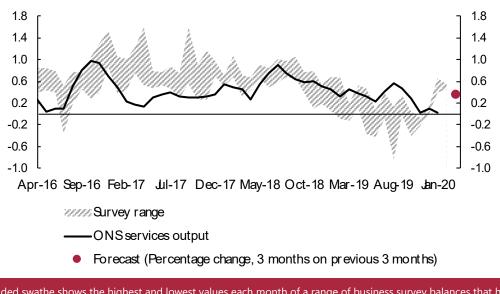
The economy continued to stagnate overall in the three months to January. A strong performance in the construction sector offset another decline in manufacturing. The services sector stagnated over the latest three months with growth in employment and education offset by falls in retail and telecommunications. The growth forecast in the first quarter of 2020 is predicated on a recovery in the service sector and stronger performance in the construction sector (figure 4).



Services (80 per cent of GDP)

According to ONS data, growth in the service sector was 0.0 per cent in the three months to January, marginally lower than what we predicted last month. Within the service sector, official data indicates that the main drivers behind the weakening in growth were the wholesale, retail and motor trade sector and the communication sector. We forecast the service sector to grow by 0.4 per cent in the first quarter of 2020 (figure 5), unchanged from last month.





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 resumption of growth 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 registered 53.2 in February, down from 53.9 in January. Survey evidence suggest that the momentum gained from receding political uncertainty and improvement in domestic economic conditions was partially offset by the outbreak of the coronavirus, which had a negative impact on sales. Globally, services activity also fell drastically. The index fell to 47.1 in from February, down from 52.7 in January, largely due to a surveyrecord contraction in China and further declines in output in the US and Japan.

The EU-collected UK services confidence indicator remained in negative territory for the sixteenth consecutive month, posting -4.3 in February, up from -4.9 in January. The indicator moves to within 5 points of its long-run average, an improvement of a 9 point gap registered in January. However, service sector confidence in the UK remains below that of the EU as a whole where the index registered 10.7 in February.

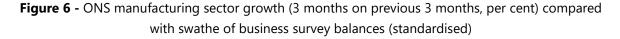
Production (14 per cent of GDP)

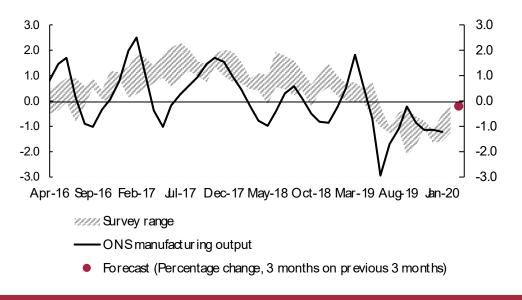
Production output fell by 1.0 per cent in the three months to January, consistent with what we published last month. Our forecast for the production sector in the first quarter of 2020 remains unrevised at a contraction of 0.4 per cent, though output in this sector is volatile and difficult to predict 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 1.2 per cent in the three months to January, marginally weaker than the 1.3 per cent fall we had forecast last month. The decline was largely driven by falls in the drinks, cars and machinery industries. Our central forecast is for a contraction of 0.2 per cent in the first quarter of 2020, a little lower than we had forecast last month.





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 51.7 in February, up from 50 in January, as domestic demand continued to improve as political uncertainty fades. Evidence suggests that business optimism has strengthened amid improved market conditions and a more stable political outlook. Notwithstanding, February saw the emergence of supply chain disruptions due to the outbreak of the COVID-19.

The latest CBI survey also suggest that there has been an improvement in business and consumer optimism in February, largely driven by a significant boost in sentiment in both the business & professional and consumer services sector.

The J.P.Morgan Global Manufacturing Output fell significantly to 47.2 in February, down from 50.4 in January, owing largely to a slowdown in China where the outbreak of the Coronavirus severely disrupted activity.

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 by 2.9 per cent in the three months to January. We now forecast a 0.0 per cent growth in output in the first quarter of 2020.

Construction (6 per cent of GDP)

Output in the construction sector grew by 1.4 per cent in the three months to January, stronger than what we had forecast last month. The strong growth largely reflects the weakness in October 2019 now moving into the base period. However, for the month of January, construction fell by 0.8 per cent, largely driven by commercial and private housing repair and maintenance. We have now revised our forecast to a 0.8 per cent growth in construction output in the first quarter of 2020.

The latest data from the IHS Markit/CIPS construction PMI survey signalled an increase in the construction PMI, with the headline business activity balance at 52.6 in February, up from 48.4 in January. Evidence suggest that the recovery is largely as result of a brighter political outlook and pent-up demand for new projects. The latest data pointed to a strong recovery in new order intake across the construction sector.

Table 1 - Summary Table of GDP growth (2016=100)

2016-100		Indo: -f	Index of Services - Components				Indexet	Index of Production - Components				Index of	
2016=100	GDP index	Index of Services	Business services and finance	Government and other services	Distribution, Hotels and Restaurants	Transport, Storage and Communications	Index of Production	Manufacturing	Electricity, gas, steam and air conditioning	Mining and Quarrying	Water Supply, Sewerage and Waste Management	Index of Constructio	Agriculture
Latest weights	1000	796	339	217	133	108	136	102	15	6	13	61	7
Apr-18	103.1	103.1	102.7	101.6	104.1	105.9	102.3	102	98.7	108.2	100.4	104.5	102.5
May-18	103.4	103.5	102.7	101.7	105.8	106.6	101.9	103.0	91.7	106.5	101.9	105.8	102.4
un-18	103.7	103.6	102.8	101.9	105.9	107.0	102.9	103.8	94.3	106.4	104.6	106.6	101.9
lul-18	104.0	103.9	103.0	101.9	106.9	107.2	103.2	103.5	97.2	111.1	104.3	106.7	101.
Aug-18 Sep-18	104.1 104.1	104.1 104.2	102.9 102.8	102.1 102.2	106.6 106.1	109.0 109.9	103.1 102.5	103.3 103.0	97.0 94.9	112.1 108.0	104.0 104.3	106.3 107.2	101.8 102.4
Oct-18	104.1	104.5	102.0	102.2	106.8	109.5	102.3	103.0	96.2	100.0	103.7	107.2	102.
Nov-18	104.6	104.8		102.4	107.7	110.0	102.2	102.6	95.7	107.9	103.2	107.3	103.
Dec-18	104.2	104.5	103.0	102.6	106.7	110.6	101.6	102.1	94.6	107.3	102.9	105.2	102.
lan-19	104.7	104.9	102.8	102.8	108.0	111.5	102.6	103.4	96.1	104.3	102.2	107.9	101.
⁼ eb-19 Var-19	105.1 105.2	105.1 105.2	103.1 103.1	103.0 103.2	108.1 108.4	111.7 111.8	102.8 103.7	104.1 105.3	91.8 91.8	108.1 109.7	102.1 102.5	109.9	101. 101.
April-19	103.2	105.2	103.1	103.2	108.4	111.0	103.7	105.5	91.8	105.8	102.5	108.2	101.
Vay-19	104.8	105.2	103.0	103.3	108.4	112.0	101.2	101.5	94.5	106.5	104.4	108.3	101.
lun-19	105.1	105.6		103.7	108.5	112.7	101.3	101.5	94.7	106.1	104.6	106.9	100.
lul-19	105.4	105.9	103.8	103.7	108.6	113.8	101.2	101.7	93.9	105.3	104.1	108.3	100.
Aug-19	105.2	105.8	103.7	104.2	108.5	112.4	100.5	100.8	92.7	105.7	104.9	108.3	100.
Sep-19	105.3	105.7	103.4	104.2	108.1	113.2	100.7	100.5	92.5	112.7	105.4	109.9	100.
Oct-19 Nov-19	105.4 105.1	106.1 105.6	104.0 103.5	104.2 104.4	108.5 107.9	113.7 111.8	100.8 99.6	100.8 99.2	94.9 95.2	105.3 106.0	104.8 105.0	107.5 110.1	100. 100.
NOV-19 Dec-19	105.1	105.6	103.5	104.4	107.9	111.8 113.5	99.6 99.7	99.2 99.5	95.2 94.0	106.0	105.0	110.1	100.4
Jan-20	105.4	106.1	104.1	104.7	108.4	112.4	99.6	99.7	90.1	105.1	107.1	109.6	99.
Feb-20	105.5	106.3	104.4	104.8	108.4	112.7	99.7	99.6	91.9	105.2	106.9	110.4	100.4
Mar-20	105.7	106.5	104.6	104.8	108.5	113.3	99.6	99.6	91.8	104.3	107.0	110.7	101.
Feb-19	Percentage 0	hange, 3 m a 0.3	onths on previ -0.2	ious 3 month 0.5	s 0.7	1.3	0.0	0.5	-1.5	-2.3	-1.3	0.2	-1.
Mar-19	0.6	0.5	-0.3	0.5	1.0	1.5	0.9	1.8	-2.4	-1.4	-1.0		
April-19	0.4	0.4	-0.1	0.5	0.7	1.2	0.1	0.6	-2.9	1.3	-0.6		-1.
May-19	0.2	0.3	0.0	0.4	0.7	0.7	-0.6	-0.7	-0.6	0.7	0.5	0.4	-0.5
lun-19	-0.2	0.2	0.0	0.4	0.2	0.7	-2.0	-2.9	1.4	-1.1	1.3		-0.4
Jul-19	0.1	0.4	0.4	0.5	0.2	0.7	-1.0	-1.7	1.8	-1.8	2.2		-0.5
Aug-19 Sep-19	0.3 0.4	0.6 0.5	0.6 0.6	0.6 0.6	0.2	0.8 0.7	-0.7 -0.1	-1.1 -0.2	0.2 -1.6	-1.5 1.7	1.6 1.2		-0.0 -0.5
Oct-19	0.4	0.3	0.0	0.6	-0.1	0.7	-0.1	-0.2	-1.0	1.7	0.6	1.1	-0.3
Nov-19	0.2	0.0	0.0	0.0	-0.1	-0.1	-0.6	-0.5	0.5	2.2	0.0	1.2	-0.
Dec-19	0.0	0.1	0.2	0.3	-0.4	-0.1	-0.8	-1.2	1.8	-2.8	0.5	0.5	-0.2
Jan-20	0.0	0.0	0.2	0.3	-0.4	-0.5	-1.0	-1.2	-0.3	-2.9	1.0	1.4	-0.5
Feb-20	0.2	0.3	0.5	0.4	-0.1	0.0	-0.7	-0.6	-2.3	-3.2	1.6		
Mar-20	0.2	0.4	0.5	0.4	0.4	-0.2	-0.4	-0.2	-3.6	0.0	1.6	0.8	0.2
Feb-19	Percentage 0	hange, mo n 2.6	th on same m 1.0	ionth in previ 1.8	ous year 4.4	7.0	-0.1	0.5	-9.3	5.5	2.5	4.7	-1.7
Mar-19	2.4	2.4		1.7	5.2	6.1	0.9	2.1	-11.3	10.3	1.4	4.9	
April-19	1.5	1.9	0.0	1.5	4.0	6.2	-2.0	-2.0	-4.4	-2.2	1.3	3.2	-1.4
May-19	1.4	1.6		1.6	2.5	5.1	-0.7	-1.5	3.1	0.0	2.5		-1.4
Jun-19	1.4	1.9	0.5	1.8	2.5	5.3	-1.6	-2.2	0.4	-0.3	0.0	0.3	-1.
Jul-19 Aug-19	1.3 1.1	1.9 1.6	0.8 0.8	1.8 2.1	1.6 1.8	6.2 3.1	-1.9 -2.5	-1.7 -2.4	-3.4 -4.4	-5.2 -5.7	-0.2 0.9	1.5	-1.3 -1.4
Sep-19	1.1	1.0		2.0	1.0	3.0		-2.4	-2.5	4.4	1.1		
Oct-19	1.0	1.5		1.8	1.6	3.8			-1.4	-5.5	1.1		
Nov-19	0.5	0.8	0.1	2.0	0.2	1.6	-2.5	-3.3	-0.5	-1.8	1.7	2.6	-2.
Dec-19	1.2	1.4		1.9	0.7	2.6		-2.5		-3.8	3.1		
Jan-20	0.7	1.1		1.8	0.4	0.8	-2.9	-3.6	-6.2	0.8	4.8		-1.
Feb-20 Mar-20	0.4 0.5	1.1 1.2		1.7 1.5	0.2 0.1	0.9 1.4		-4.3 -5.4		-2.7 -4.9	4.7 4.4		
	Percentage	hange, mon	th on previou	s month									
Feb-19	0.4	0.2		0.2	0.1	0.2		0.7	-4.5	3.6	-0.1		
Mar-19 April-19	0.1	0.1 -0.1		0.2 -0.1	0.3 -0.1	0.1 0.6		1.2 -4.5		1.5 -3.6	0.4 -0.8		
April-19 May-19	-0.6 0.2	-0.1		-0.1	-0.1	-0.4		-4.5	2.8 0.1	-3.6	-0.8		
lun-19	0.2	0.1		0.2	0.1	-0.4		0.9		-0.4	0.2		
lul-19	0.3	0.3		0.0	0.1	1.0		0.2		-0.8	-0.5		
Aug-19	-0.2	-0.1	-0.1	0.5	-0.1	-1.2	-0.7	-0.9	-1.3	0.4	0.8	0.0	-0.
Sep-19	0.1	-0.1		0.0	-0.4	0.7	0.2	-0.3	-0.2	6.6	0.5		0.
Oct-19 Nov-19	0.1	0.4		0.0	0.4	0.4		0.3	2.6	-6.6	-0.6		
Nov-10	-0.3	-0.5 0.4		0.2 0.1	-0.6 -0.4	-1.7 1.5	-1.2 0.1	-1.6 0.3	0.3 -1.3	0.7 -2.6	0.2 1.0		-0. -0.
	0.2												-0.
Dec-19	0.3												
Dec-19 Jan-20 Feb-20	0.3 0.0 0.1	0.4	0.1	0.1	0.8	-1.0	-0.1	0.3	-4.1	1.8	0.9	-0.8	0.:

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 this month 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 0.2 % 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 2Forecast Error Analysis: Quarterly GDP growth (%)

Quarter	ONS first	ONS latest	NIESR nowcast*	Error in NIESR	ONS latest – first	
	estimate	estimate	INIESK NOWCAST	nowcast**		
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	0.5	-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			0.2			
Average						
absolute				0.22	0.08	
error						

* 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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