

## GDP growth of 0.1 per cent in three months ending in April 2018

## \*For Immediate release\*

Our monthly estimates of GDP suggest that output grew by 0.1 per cent in the three months ending in April 2018 following growth of 0.1 per cent in the three months ending in March 2018.

Dr Rebecca Piggott, Senior Economist at NIESR, said "We estimate that output expanded by just 0.1 per cent in the three months to April 2018. Whilst an obvious reason for this weakness was the severe weather in March that caused disruption, particularly to the construction sector, there are indications of a broader slowdown in activity as, for example, manufacturing growth has remained weak so far this year. As we would expect, the unseasonably cold weather provided a small offset in the form of an increase in energy supply.

This estimate, as well as official national accounts data, should be treated with caution if previous severe weather episodes serve as a guide. Take for example the final quarter of 2010, when the UK experienced a prolonged period of extreme cold weather. The economy was initially estimated by the ONS to have shrunk by 0.5 per cent but subsequent data revisions indicate an expansion of 0.1 per cent over this period."

NIESR's latest quarterly forecast (published May 2018) projected GDP growth of 1.4 per cent per annum in 2018 and 1.7 per cent in 2019 (see <a href="here">here</a> for the associated press release).

**Technical notes:** Our track record in producing early estimates of GDP suggests that our projection for the most recent three-month period has a root mean squared error (RMSE) of 0.224% point (for the full sample period 1999Q3-2015Q4) when compared to the first estimate produced by the ONS. For the period 2008Q1 to 2015Q4 the RMSE is 0.290% point. The impact of the adverse weather in 2010Q4 is a noticeable outlier. Excluding 2010Q4 from the analysis, the RMSE for the full sample period is 0.188% point, and for 2008Q1 to 2015Q4 the RMSE is 0.231% point. These comparisons can be made only for complete calendar quarters. Outside calendar quarters the figures are less reliable than this.

A paper describing the methodology used to produce the data was published in the February 2005 volume of the *Economic Journal*:

Mitchell, J. Smith, R. J., Weale, M. R., Wright, S. and Salazar, E. L. (2005) 'An Indicator of Monthly GDP and an Early Estimate of Quarterly GDP Growth', *Economic Journal*, No. 551, pp. F108-F129.

- Available from: <a href="http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1468-0297">http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1468-0297</a>

A paper describing the methodology used to produce the data for the inter-war period was published in the October 2012 volume of *Explorations in Economic History*:

Mitchell, J., Solomou, S. and Weale, M. (2012) 'Monthly GDP estimates for interwar Britain', *Explorations in Economic History*, Vol. 49, No. 4, pp. 543-556.

- Available from: <a href="http://www.journals.elsevier.com/explorations-in-economic-history/">http://www.journals.elsevier.com/explorations-in-economic-history/</a>

From April until October 2006 our estimates were computed using the Index of Services published by ONS. However this monthly series shows considerable volatility which has caused us some problems in estimating GDP. From our November 2006 press release we have therefore reverted to using a model of private services output based on indicator variables. This means that, while all our figures for calendar quarters are fully coherent with ONS data, our estimates of monthly private service output are not. The series can be thought of as indicating the underlying value of the ONS series.

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**Notes for editors:** For further information please contact the NIESR Press Office or Paola Buonadonna on 020 7654 1931/p.buonadonna@niesr.ac.uk

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Table 1: Summary Table of Quarterly Growth Rates (2015=100)

			3 months ending in		<b>Quarterly Growth %</b>		
	Monthly Data		month s	hown	per quarter		
	Industry	GDP	Industry	GDP	Industry	GDP	
Jan-17	103.5	103.2	103.3	103.2	2.2%	0.9%	
Feb-17	102.5	103.3	103.3	103.2	1.9%	0.5%	
Mar-17	101.8	103.1	102.6	103.2	0.4%	0.3%	
Apr-17	102.1	103.5	102.1	103.3	-1.1%	0.2%	
May-17	102.5	103.4	102.1	103.4	-1.1%	0.2%	
Jun-17	103.1	103.6	102.6	103.5	0.0%	0.3%	
Jul-17	103.4	103.7	103.0	103.6	0.8%	0.3%	
Aug-17	103.4	104.0	103.3	103.8	1.1%	0.4%	
Sep-17	104.1	104.2	103.6	104.0	1.0%	0.5%	
Oct-17	104.3	104.4	103.9	104.2	0.9%	0.6%	
Nov-17	104.6	104.7	104.3	104.4	1.0%	0.6%	
Dec-17	103.4	104.1	104.1	104.4	0.5%	0.4%	
Jan-18	104.6	104.6	104.2	104.5	0.3%	0.3%	
Feb-18	104.7	104.4	104.2	104.4	-0.1%	0.0%	
Mar-18	104.8	104.5	104.7	104.5	0.6%	0.1%	
Apr-18	104.9	104.7	104.8	104.5	0.6%	0.1%	

Table 2: Output by Sector (2015=100)

				<b>Private</b>	<b>Public</b>		
	Industry	Agriculture	Construction	<b>Services</b>	<b>Services</b>	GDP(B)	<b>GDP</b>
Jan-17	103.5	94.1	109.5	104.5	100.7	103.0	103.2
Feb-17	102.5	93.8	110.1	105.0	100.6	103.1	103.3
Mar-17	101.8	93.6	110.1	104.8	100.8	102.9	103.1
Apr-17	102.1	93.5	109.6	105.3	100.8	103.2	103.5
May-17	102.5	93.6	109.4	105.0	100.7	103.1	103.4
Jun-17	103.1	94.0	109.4	105.1	100.6	103.3	103.6
Jul-17	103.4	94.6	109.7	105.4	100.4	103.4	103.7
Aug-17	103.4	94.9	110.0	105.8	100.5	103.7	104.0
Sep-17	104.1	94.8	110.3	105.9	100.5	103.9	104.2
Oct-17	104.3	94.4	110.5	106.0	100.6	104.1	104.4
Nov-17	104.6	93.9	110.1	106.6	100.6	104.4	104.7
Dec-17	103.4	93.4	109.0	106.0	100.6	103.8	104.1
Jan-18	104.6	92.9	107.3	106.7	100.8	104.3	104.6
Feb-18	104.7	92.5	106.1	106.4	100.8	104.1	104.4
Mar-18	104.8	92.4	105.5	106.6	100.6	104.2	104.5
Apr-18	104.9	92.4	106.1	107.0	100.6	104.4	104.7

Table 3: Output in Quarter Ending in Month Shown (2015=100)

				<b>Private</b>	<b>Public</b>		
	<b>Industry</b>	Agriculture	Construction	<b>Services</b>	<b>Services</b>	GDP(B)	<b>GDP</b>
Jan-17	103.3	94.4	108.5	104.8	100.4	103.0	103.2
Feb-17	103.3	94.1	109.4	104.7	100.5	103.0	103.2
Mar-17	102.6	93.8	109.9	104.8	100.7	103.0	103.2
Apr-17	102.1	93.6	109.9	105.0	100.7	103.1	103.3
May-17	102.1	93.5	109.7	105.0	100.8	103.1	103.4
Jun-17	102.6	93.7	109.5	105.1	100.7	103.2	103.5
Jul-17	103.0	94.1	109.5	105.2	100.6	103.3	103.6
Aug-17	103.3	94.5	109.7	105.4	100.5	103.5	103.8
Sep-17	103.6	94.8	110.0	105.7	100.5	103.7	104.0
Oct-17	103.9	94.7	110.3	105.9	100.6	103.9	104.2
Nov-17	104.3	94.4	110.3	106.1	100.6	104.1	104.4
Dec-17	104.1	93.9	109.9	106.2	100.6	104.1	104.4
Jan-18	104.2	93.4	108.8	106.4	100.7	104.2	104.5
Feb-18	104.2	92.9	107.5	106.3	100.7	104.1	104.4
Mar-18	104.7	92.6	106.3	106.6	100.7	104.2	104.5
Apr-18	104.8	92.4	105.9	106.7	100.7	104.2	104.5

<u>Table 4: Growth in Quarter Ending in Month Shown over Previous Quarter (% at Annual Rate)</u>

				Private	Public		
	<b>Industry</b>	Agriculture	Construction	<b>Services</b>	<b>Services</b>	GDP(B)	<b>GDP</b>
Jan-17	9.3%	1.3%	13.9%	2.6%	0.3%	3.8%	3.7%
Feb-17	7.7%	-1.3%	12.6%	0.0%	1.3%	2.2%	2.1%
Mar-17	1.6%	-3.3%	9.6%	-0.1%	2.0%	1.2%	1.2%
Apr-17	-4.3%	-3.6%	5.3%	1.0%	1.4%	0.5%	0.6%
May-17	-4.3%	-2.5%	1.2%	1.4%	1.0%	0.4%	0.7%
Jun-17	-0.1%	-0.4%	-1.4%	1.5%	0.0%	0.8%	1.2%
Jul-17	3.4%	2.2%	-1.4%	0.5%	-0.6%	0.7%	1.0%
Aug-17	4.6%	4.3%	0.0%	1.5%	-0.9%	1.6%	1.7%
Sep-17	4.2%	4.8%	1.8%	2.0%	-0.8%	2.0%	1.9%
Oct-17	3.7%	2.7%	2.7%	2.8%	-0.1%	2.5%	2.4%
Nov-17	4.1%	-0.6%	2.2%	2.7%	0.2%	2.5%	2.5%
Dec-17	1.8%	-3.7%	-0.4%	2.0%	0.4%	1.6%	1.5%
Jan-18	1.0%	-5.4%	-5.2%	2.0%	0.4%	1.1%	1.1%
Feb-18	-0.4%	-5.9%	-9.9%	0.8%	0.6%	-0.1%	-0.1%
Mar-18	2.3%	-5.4%	-12.5%	1.4%	0.4%	0.4%	0.4%
Apr-18	2.3%	-4.1%	-10.2%	1.0%	0.1%	0.2%	0.2%

**ENDS**