

## GDP growth of 0.6 per cent in 2017Q4 \*For Immediate release\*

Our monthly estimates of GDP suggest that output grew by 0.6 per cent in the final quarter of 2017, an increase compared with the third quarter when the economy expanded by 0.4 per cent and the strongest quarterly growth estimate since the fourth quarter of 2016. Based on this, the UK economy expanded by 1.8 per cent in 2017.

Amit Kara, Head of UK Macroeconomic Forecasting at NIESR, said "We estimate that economic growth recovered to 0.6 per cent in the final quarter of this year from 0.4 per cent in the third quarter. Economic growth has picked up in the second half of 2017 after a period of subdued growth in the first six months. The recovery has been driven by both the manufacturing and the service sectors, supported by the weaker pound and a buoyant global economy, while construction output continues to lag.

In November we had forecast final quarter GDP growth at 0.5 per cent and as such today's revised estimate suggests that activity has strengthened by more than we had previously anticipated. This recovery, combined with above target CPI inflation, is consistent with a gradual withdrawal of monetary policy stimulus and as such we see the Bank of England raising the policy rate once again by 25 basis points in May and then every 6 months until Bank Rate reaches 2 per cent by mid-2021."

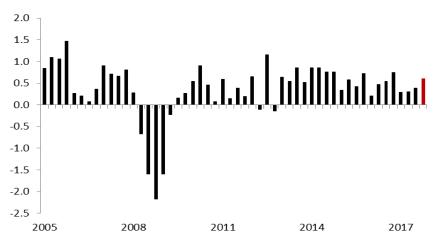


Figure 1. Real GDP growth (per cent per quarter)

Source: ONS, NIESR. Note: red bar indicates NIESR estimate for 2017Q4

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

	Monthly Data		3 months ending in month shown		Quarterly Growth % per quarter	
	Industry	GDP	Industry	GDP	Industry	GDP
Jan-16	99.9	101.3	99.5	101.1	-1.1%	0.6%
Feb-16	99.6	101.0	99.5	101.1	-0.9%	0.3%
Mar-16	100.0	101.1	99.8	101.1	0.0%	0.2%
Apr-16	102.6	101.6	100.7	101.2	1.2%	0.2%
May-16	101.8	101.5	101.5	101.4	2.0%	0.3%
Jun-16	101.4	101.7	101.9	101.6	2.1%	0.5%
Jul-16	101.6	102.1	101.6	101.7	0.9%	0.5%
Aug-16	101.4	102.0	101.5	101.9	0.0%	0.5%
Sep-16	101.3	102.2	101.4	102.1	-0.5%	0.5%
Oct-16	100.3	102.4	101.0	102.2	-0.6%	0.5%
Nov-16	102.5	103.3	101.4	102.6	-0.1%	0.7%
Dec-16	103.8	103.0	102.2	102.9	0.8%	0.8%
Jan-17	103.4	103.1	103.2	103.1	2.2%	0.9%
Feb-17	102.5	103.3	103.2	103.1	1.8%	0.5%
Mar-17	101.9	103.2	102.6	103.2	0.4%	0.3%
Apr-17	102.1	103.5	102.2	103.3	-1.0%	0.2%
May-17	102.4	103.4	102.1	103.4	-1.1%	0.2%
Jun-17	103.1	103.6	102.5	103.5	-0.1%	0.3%
Jul-17	103.5	103.7	103.0	103.5	0.8%	0.2%
Aug-17	103.7	104.0	103.4	103.7	1.3%	0.4%
Sep-17	104.4	104.1	103.9	103.9	1.3%	0.4%
Oct-17	104.6	104.2	104.2	104.1	1.2%	0.5%
Nov-17	105.1	104.6	104.7	104.3	1.2%	0.6%
Dec-17	105.7	104.8	105.1	104.5	1.2%	0.6%

Table 2: Output by Sector (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-16	99.9	96.1	100.9	102.1	100.9	101.1	101.3
Feb-16	99.6	94.9	101.1	101.8	101.2	100.7	101.0
Mar-16	100.0	94.3	101.6	102.2	100.7	100.9	101.1
Apr-16	102.6	94.2	102.3	102.6	100.6	101.4	101.6
May-16	101.8	94.1	102.9	102.5	100.6	101.3	101.5
Jun-16	101.4	94.0	103.2	103.0	100.6	101.5	101.7
Jul-16	101.6	93.8	103.4	103.6	100.8	101.9	102.1
Aug-16	101.4	93.8	104.0	103.6	100.5	101.8	102.0
Sep-16	101.3	94.1	104.9	104.1	100.3	102.0	102.2
Oct-16	100.3	94.5	106.2	104.6	100.2	102.2	102.4
Nov-16	102.5	94.7	107.4	105.4	100.2	103.1	103.3
Dec-16	103.8	94.5	108.5	104.3	100.3	102.8	103.0
Jan-17	103.4	94.1	109.6	104.4	100.7	102.9	103.1
Feb-17	102.5	93.8	110.1	104.9	100.6	103.1	103.3
Mar-17	101.9	93.6	110.3	104.7	100.8	103.0	103.2
Apr-17	102.1	93.5	110.0	105.2	101.0	103.3	103.5
May-17	102.4	93.7	109.7	104.9	101.0	103.2	103.4
Jun-17	103.1	93.9	109.4	105.2	100.9	103.4	103.6
Jul-17	103.5	94.3	109.2	105.3	100.8	103.5	103.7
Aug-17	103.7	94.5	109.1	105.8	101.1	103.8	104.0
Sep-17	104.4	94.7	109.0	105.8	101.1	103.9	104.1
Oct-17	104.6	94.7	109.0	105.9	101.3	104.0	104.2
Nov-17	105.1	94.7	109.0	106.5	101.4	104.4	104.6
Dec-17	105.7	94.7	109.0	106.6	101.5	104.6	104.8

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-16	99.5	97.7	100.9	101.5	100.9	100.9	101.1
Feb-16	99.5	96.3	101.0	101.7	101.1	100.9	101.1
Mar-16	99.8	95.1	101.2	102.0	100.9	100.9	101.1
Apr-16	100.7	94.5	101.7	102.2	100.8	101.0	101.2
May-16	101.5	94.2	102.2	102.4	100.6	101.2	101.4
Jun-16	101.9	94.1	102.8	102.7	100.6	101.4	101.6
Jul-16	101.6	94.0	103.2	103.0	100.7	101.5	101.7
Aug-16	101.5	93.9	103.5	103.4	100.6	101.7	101.9
Sep-16	101.4	93.9	104.1	103.8	100.5	101.9	102.1
Oct-16	101.0	94.2	105.0	104.1	100.3	102.0	102.2
Nov-16	101.4	94.4	106.2	104.7	100.2	102.4	102.6
Dec-16	102.2	94.6	107.4	104.8	100.2	102.7	102.9
Jan-17	103.2	94.4	108.5	104.7	100.4	102.9	103.1
Feb-17	103.2	94.1	109.4	104.5	100.5	102.9	103.1
Mar-17	102.6	93.8	110.0	104.7	100.7	103.0	103.2
Apr-17	102.2	93.6	110.1	104.9	100.8	103.1	103.3
May-17	102.1	93.6	110.0	104.9	101.0	103.2	103.4
Jun-17	102.5	93.7	109.7	105.1	101.0	103.3	103.5
Jul-17	103.0	93.9	109.5	105.1	100.9	103.3	103.5
Aug-17	103.4	94.2	109.2	105.4	100.9	103.5	103.7
Sep-17	103.9	94.5	109.1	105.6	101.0	103.7	103.9
Oct-17	104.2	94.6	109.0	105.8	101.2	103.9	104.1
Nov-17	104.7	94.7	109.0	106.1	101.3	104.1	104.3
Dec-17	105.1	94.7	109.0	106.4	101.4	104.3	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-16	-4.3%	-9.1%	3.9%	3.9%	3.9%	2.2%	2.2%
Feb-16	-3.5%	-13.0%	2.4%	3.8%	3.4%	0.9%	1.2%
Mar-16	0.1%	-14.9%	1.6%	4.2%	1.2%	0.4%	0.8%
Apr-16	4.9%	-12.7%	2.9%	2.9%	-0.2%	0.3%	0.6%
May-16	8.1%	-8.5%	4.9%	2.8%	-1.7%	1.1%	1.3%
Jun-16	8.7%	-4.1%	6.5%	2.5%	-1.2%	2.0%	2.0%
Jul-16	3.5%	-2.1%	6.1%	3.3%	-0.5%	2.1%	2.1%
Aug-16	0.0%	-1.4%	5.2%	3.9%	0.0%	2.1%	2.1%
Sep-16	-1.9%	-0.8%	5.2%	4.4%	-0.4%	2.0%	2.0%
Oct-16	-2.3%	0.8%	7.4%	4.3%	-1.5%	1.9%	1.9%
Nov-16	-0.4%	2.5%	10.6%	5.1%	-1.7%	2.9%	2.9%
Dec-16	3.1%	3.0%	13.3%	4.0%	-1.2%	3.2%	3.2%
Jan-17	9.1%	1.2%	14.0%	2.3%	0.3%	3.6%	3.6%
Feb-17	7.6%	-1.4%	12.8%	-0.6%	1.3%	1.9%	1.9%
Mar-17	1.6%	-3.3%	10.0%	-0.5%	2.0%	1.2%	1.2%
Apr-17	-4.1%	-3.4%	6.1%	0.9%	1.8%	0.8%	0.8%
May-17	-4.2%	-2.2%	2.1%	1.5%	1.8%	0.9%	0.8%
Jun-17	-0.3%	-0.4%	-1.1%	1.7%	1.2%	1.2%	1.2%
Jul-17	3.3%	1.4%	-2.5%	0.8%	0.4%	0.8%	0.8%
Aug-17	5.2%	2.8%	-2.6%	1.9%	-0.1%	1.4%	1.4%
Sep-17	5.3%	3.5%	-2.2%	2.1%	0.0%	1.6%	1.6%
Oct-17	4.9%	2.9%	-1.5%	2.7%	0.9%	2.1%	2.1%
Nov-17	5.0%	1.8%	-0.9%	2.6%	1.3%	2.3%	2.3%
Dec-17	4.9%	0.7%	-0.4%	2.7%	1.5%	2.5%	2.5%

**ENDS**