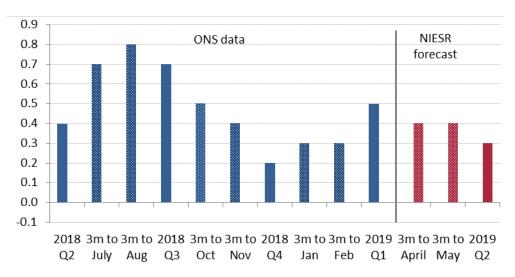


# **NIESR MONTHLY GDP TRACKER: May 2019**

UK economy boosted by temporary factors in first quarter of 2019

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



Source: NIESR, ONS

Note: the solid bars show the 3m/3m growth rate for complete calendar quarters and the shaded areas show rolling 3m/3m growth rate for the intervening months. There may be inconsistencies in the growth rate arising from rounding.

### Main points

- Latest economic data shows that the pace of activity picked-up in the first quarter of 2019, with quarterly growth rising to 0.5 per cent after growth of 0.2 per cent in the final quarter of last year.
- The improvement in the growth rate reflects temporary factors, such as the influence of additional stockbuilding on manufacturing output. Within manufacturing, the output of the pharmaceuticals industry increased by 9.4 per cent on the quarter, with at least some of the increase likely to be associated with stockbuilding abroad ahead of the original Brexit departure date. There was also a strong contribution in the first quarter from mining and quarrying output, which grew by 2.0 per cent on the quarter, but is known to be volatile.
- The economy is on track to grow at the slightly slower pace of 0.3 per cent in the second quarter as some of these temporary factors fade.

Garry Young, Head of Macroeconomic Modelling and Forecasting, said "The latest ONS data suggest that the economy is growing at the relatively sedate underlying pace of 1½ per cent per year, with ups and downs around that due to erratic factors, such as the weather and, in the first quarter of 2019, stockpiling ahead of the original Brexit date. It is unlikely that the pace of growth will pick up significantly as long as Brexit-related uncertainty is hampering forward planning in business and government".

#### Forecast news

Figure 2 shows how our short-term forecasts for recent quarters have changed as new information has become available. The latest monthly data was a little stronger than what we had expected last month, but we have not changed our estimate of growth of 0.3 per cent for the second quarter of 2019.

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

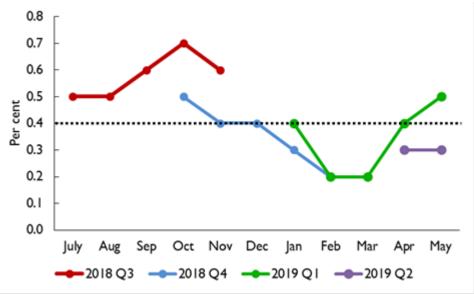


Figure 3 shows a heat map of the data surprises across sectors in the monthly data, highlighting the sectors where the surprises are large relative to the volatility of the output data. It shows that this month the main positive surprises have been in the manufacturing and the mining and quarrying (extraction) sectors, both within production, and the main negative surprises have been in the transport, storage and communications sector, within services, and the construction sector.

Figure 3: Surprises in monthly data

	Business services and finance	Government	Distribution, Hotels and Restaurants	Transport, Storage and Communication	Manufacturing	Electricity	Extraction	Water Supply, Sewerage, Waste Management	Construction	Agriculture
Jun-18	-1.7	0.0	0.0	0.7	0.1	-0.3	-0.8	1.9	0.9	-0.8
Jul-18	1.1	-1.5	0.7	-1.3	-0.1	0.5	1.4	-0.2	-0.1	0.2
Aug-18	-0.6	-0.7	-0.5	0.7	-0.4	1.5	2.3	0.7	-0.9	-0.2
Sep-18	-0.6	0.7	-1.9	0.4	0.0	-0.6	0.8	-1.0	0.7	0.2
Oct-18	1.1	1.5	0.1	-1.8	-1.5	-1.3	1.6	-0.9	-0.3	0.2
Nov-18	-0.6	0.0	1.0	0.0	-0.1	-1.8	-0.3	-0.5	0.0	0.2
Dec-18	-0.6	0.0	-0.7	-0.4	-1.6	-1.3	0.6	0.7	-2.1	0.5
Jan-19	-1.4	-0.7	1.3	1.1	0.6	-0.8	0.6	-1.0	1.1	-2.5
Feb-19	0.3	1.5	0.7	0.9	1.6	-0.8	1.8	-0.7	0.5	0.8
Mar-19	0.0	-0.7	0.1	-1.2	2.3	0.1	1.8	-1.2	-1.2	0.0

Note: Cells shows forecast errors as a fraction of the standard deviation of errors for each series. Cells coloured red are when outturns are more than one standard deviation lower than expected and cells coloured green are when outturns are more than one standard deviation higher than expected.

#### Sectoral detail

All of the major sectors made a positive contribution to GDP growth in the first quarter as a whole (figure 4), partly reflecting a recovery in production and construction from a notably weak performance in December. The contribution of the service sector dipped slightly. We expect broad-based growth to mainly continue in the second quarter, driven by the service sector, with the exception of construction which is expected to make a modest negative contribution.

3

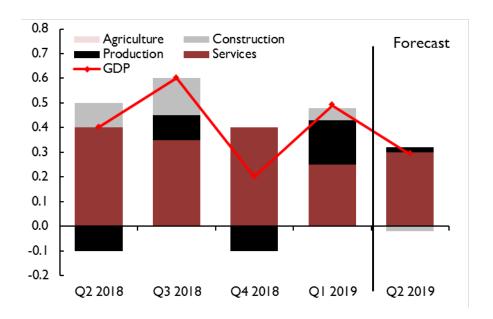
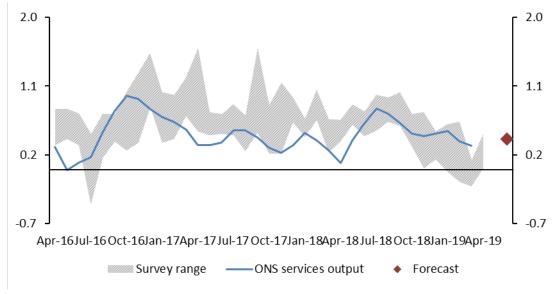


Figure 4: Contributions to quarterly GDP growth (percentage points)

# Services (80 per cent of GDP)

According to ONS, growth in the service sector was 0.3 per cent in the first quarter of 2019, in line with our previous estimate.

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 service sector grew by 0.3 per cent in the first quarter, as a surprisingly positive performance in January was consolidated in February and March. This was a little stronger than the survey balances had implied. Survey balances picked up in April, after signalling falling output in March (figure 5). The headline business activity balance in the IHS Markit/CIPS UK services PMI survey picked up to 50.4 in April from 48.9 in March. This uptick in the UK services PMI contrasted with a dip in global services activity: the J.P.Morgan Global Services PMI fell from 53.7 in March to 52.7 in April, only a little higher than the 28-month low of 52.6 reported in January.

Despite the improvement in April, there is little evidence of confidence in the UK service sector. The UK services confidence indicator, collected by the EU, was -6.9 in April, the sixth consecutive negative reading. This suggests a continuation of slow service sector growth of around 0.3 per cent in the second quarter of 2019.

## Production (14 per cent of GDP)

Production output rose by 1.4 per cent in the first quarter of 2019. The outturn was much stronger than the forecast of 0.6 per cent growth that we published last month.

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 percent of GDP)

Within production, output in the manufacturing sector rose by 2.2 per cent in the first quarter, much stronger than we had expected last month, and the fastest quarterly growth rate since the third quarter of 1988. The strength is partly due to comparison with what now appears to be an erratically weak fourth quarter, and a reported increase in stockbuilding. The output of the pharmaceuticals industry increased by 9.4 per cent on the quarter, with at least some of the increase likely to be associated with stockbuilding abroad ahead of the original Brexit departure date.

For most of the past year or more, the official ONS data has pointed to weaker activity in the manufacturing sector than the implied by the business surveys, possibly reflecting falls in output in a small number of large businesses that get insufficient weight in survey balances. The latest ONS data showing a widespread increase in output throughout the manufacturing sector in the first quarter has moved more into line with the survey evidence (figure 6).

Forecast

**Survey range** 

2.5
1.5
-0.5
-0.5
-1.5
Apr-16 Jul-16 Oct-16 Jan-17 Apr-17 Jul-17 Oct-17 Jan-18 Apr-18 Jul-18 Oct-18 Jan-19 Apr-19

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, NIESR calculations

ONS manufacturing output

The relatively strong performance of the manufacturing sector in the first quarter is reported to have reflected extensive stockbuilding ahead of the originally expected Brexit date. The CBI Industrial Trends survey showed 'an unprecedented acceleration in the growth of stocks held by the manufacturing sector' in the three months to April. With Brexit uncertainty continuing for a further few months at least, businesses are likely to hold onto the stocks they have accumulated for longer, though it is not clear whether they will add to them. The IHS Markit/CIPS UK manufacturing survey reported that 'Brexit stock-building continued, albeit to a lesser extent than in the prior survey month'.

Consistent with less stockbuilding, the IHS Markit/CIPS UK manufacturing PMI balance fell back to 53.1 in April from a recent high of 55.1 in March. The dip in UK manufacturing activity survey balances was mirrored globally: the J.P.Morgan Global Manufacturing PMI fell to 50.3 in April, down from a revised 50.5 in March.

Overall sentiment in the UK manufacturing sector has improved a little, but from a gloomy base. This is likely to put a damper on investment. The April CBI Industrial Trends survey reports that 'the proportion of firms reporting uncertainty about demand as a factor likely to limit capital expenditure was at its highest since January 2013'.

Against this background, manufacturing sector growth will slow to a quarterly rate of around 0.3 per cent in the second quarter of 2019.

### Mining and quarrying

Mining and quarrying is a small and erratic component of the industrial production sub-component. Output in the first quarter was 2.0 per cent higher than in the previous quarter, stronger than the 0.7 per increase we had forecast last month.

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

Output in the construction sector grew by 1.0 per cent in the first quarter of 2019. This was weaker than we had expected. Output fell by 1.9 per cent in March, as both new work, and repair and maintenance declined.

The latest reading from the IHS Markit/CIPS construction PMI survey signalled a stabilisation in construction activity, with the headline business activity balance rising to 50.5 in April from 49.7 in March. The monthly pattern of growth, with very strong output in January and February points to modestly negative growth in the second quarter.

### Outlook for the whole economy in 2019

NIESR publishes a comprehensive global and UK macroeconomic forecast each quarter. Under the central scenario of our May forecast, which was conditioned on a soft Brexit, we were expecting GDP growth of around 1½ per cent in 2019. We emphasised in our latest report that the risks to that forecast were tilted to the downside because of economic and political uncertainties related to Brexit negotiations. This uncertainty continues to act as a drag on investment spending and is also a key risk going forward according to the Bank of England Decision Maker Panel.

#### **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 second quarter of 2019, was published last month and will then be updated three times (in May, June and July) before the ONS publishes its first estimate for the second quarter of 2019 in August. 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 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 is the earliest vintage currently available on the ONS website) and in each subsequent three months. These are shown in the table below, 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 percentage points. The largest error was for 2018Q1 when our GDP tracker methodology would have expected growth to be 0.5%, 0.4% points higher than the ONS first estimate of GDP growth that was published in April 2018.

### Forecast Error Analysis: Quarterly GDP growth (%)

Quarter	ONS first	ONS latest	NUECD*	Error in NIESR	ONS latest – first	
	estimate	estimate	NIESR nowcast*	nowcast**		
2016Q4	0.6	0.9	0.7	-0.1	0.3	
2017Q1	0.3	0.4	0.6	-0.3	0.1	
2017Q2	0.3	0.3	0.4	-0.1	0.0	
2017Q3	0.4	0.5	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	0.4	0.0	0.4	0.0	
2018Q3	0.6	0.7	0.5	0.1	0.1	
2018Q4	0.2	0.2	0.4	-0.2	0.0	
2019Q1	0.5	0.5	0.2	0.3	0.0	
Average						
absolute				0.20	0.09	
error						

<sup>\*</sup> Made in the second month of the quarter, 3 months ahead of ONS first estimate

<sup>\*\*</sup> ONS first estimate - NIESR estimate

**Notes for editors:** For further information please contact the NIESR Press Office or Luca Pieri on 020 7654 1931/ <a href="mailto:l.pieri@niesr.ac.uk">l.pieri@niesr.ac.uk</a>

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

			Index of Services - Components					Index of Production - Components					
2016=100	GDP	Index of	Business	Governme	Distribution,	Transport,	Index of		Electricity,		Water Supply,	Index of	Agriculture
	index	Services	services	nt and	Hotels and	Storage and	Production	Manufactu	gas, steam	Mining and	Sewerage and	Construction	Agriculture
			and finance	other services	Restaurants	Communicati ons		ring	and air conditioning	Quarrying	Waste Management		
	1000	793	Illiance	Sel vices		OHS	140		conditioning		ivialiagement	60	7
Latest weights	1000	733	334	220	133	106	140	101	12	17	10		'
Jul-18	104.2	104.1	103.9	100.7	106.4	109.1	103.3	103.7	98.7	106.2	103.3	108.1	99.9
Aug-18	104.3	104.3	103.9	101.0	106.2	110.1	103.3	103.6	98.4	107.1	103.3	108.1	
Sep-18	104.3	104.2	103.8	101.1	105.3	110.7	102.8	103.6	97.1	103.7	102.8		
Oct-18	104.5	104.5	104.2	101.4	106.0	110.3	102.5	103.0	97.1		102.3		
Nov-18	104.7	104.9	104.4	101.4	107.0	110.5	102.3	103.1	96.5	103.9	102.0		
Dec-18	104.4	104.7	104.2	101.5	106.0	111.4	101.9	102.5	96.3	104.7	102.3		
Jan-19	105.0	105.0	104.0	101.7	107.4	111.8	103.0	104.1	96.5	104.5	100.7	109.5	
Feb-19	105.1	105.1	104.3	101.7	107.5	111.8	103.6		93.6		100.6		
Mar-19	105.0	105.0	104.3	101.7	107.5	111.2	104.3	106.1	93.0	108.6	100.2	107.9	
Apr-19	105.3	105.3	104.6	101.8	107.6	111.8	103.9		93.1	107.3	100.5		
May-19	105.4	105.4	104.8	101.8	107.7	112.1	103.7	105.4	92.3		100.7	108.8	
Jun-19	105.5	105.6	105.1	101.8	107.8	112.3	103.7	105.5	91.7	107.4	100.9		
Juli 15		ge change, 3 i				112.0	10017	105.5	31.7	10711	100.5	100.5	33.0
Nov-18	0.4	0.4	0.3	0.6	0.1	1.1	-0.6	-0.6	-0.5	-0.9	-0.8	1.1	0.9
Dec-18	0.2	0.5	0.4	0.6	0.3	0.8	-0.8	-0.7	-1.5	-0.8	-0.9		1
Jan-19	0.3	0.5	0.2		0.9	0.8	-0.4	-0.2		-1.1	-1.1		
Feb-19	0.3	0.4	0.0		0.8	1.0	0.3	0.6			-1.1	-0.7	1
Mar-19	0.5	0.3	-0.1		1.1	0.7	1.4	2.2	-2.3	2.0	-1.7		1
Apr-19	0.4	0.2	0.2		0.7	0.3	1.5	2.3	-3.3	3.3	-1.2		
May-19	0.4	0.3	0.4	0.1	0.6	0.0		1.8	-2.8		-0.7		
Jun-19	0.3	0.4	0.6		0.2	0.4	0.1	0.4	-2.1		0.2		
								•				•	
	Percenta	ge change, m	onth on sa	me month	in previous y	<i>lear</i>							
Nov-18	1.6	2.1	1.4	1.4	3.7	4.2	-0.9	-1.1	-2.6	2.3	-0.5	0.8	-2.3
Dec-18	1.1	1.7	1.1	1.0	3.4	3.3	-0.4	-1.8	-4.7	23.9	-0.3	-3.1	-2.5
Jan-19	1.6	1.8	0.4	1.3	4.2	4.4	0.1	-0.2	-0.4	2.9	0.3	2.0	-2.4
Feb-19	2.1	2.3	1.3	1.4	4.2	5.3	0.5	1.2	-7.0	5.5	-0.4	3.2	-2.2
Mar-19	1.9	1.9	0.9	1.1	4.4	3.8	1.4	2.6	-10.1	9.8	-1.1	3.3	-1.9
Apr-19	1.9	1.9	1.1	1.1	3.7	4.2	1.4	2.8	-6.9	1.3	0.2	3.6	-1.4
May-19	1.8	1.8	1.3	1.2	2.3	3.8	1.8	2.2	-2.6	5.6	-0.5	1.6	-0.9
Jun-19	1.5	1.7	1.4	1.0	2.3	3.1	0.8	1.3	-3.5	4.5	-2.2	0.4	-0.1
		ge change, m					ì						
Nov-18	0.2	0.4	0.2			0.4	-0.2	0.1	-0.6		-0.3		
Dec-18	-0.3	-0.2	-0.2		-0.9	0.6	-0.4	-0.6	-0.2		0.3		
Jan-19	0.6	0.3	-0.2		1.3	0.4	1.0	1.6	0.2		-1.6		1
Feb-19	0.2	0.1	0.3	0.1	0.1	0.0	0.6	1.0	-3.0		-0.1		
Mar-19	-0.1	-0.1	0.0	-0.1	0.0	-0.5	0.7	1.0	-0.6		-0.4		
Apr-19	0.2	0.3	0.3	0.1	0.1	0.5		-0.4	0.1	-1.2	0.3		
May-19	0.1	0.2	0.2	0.0	0.1	0.2		-0.2	-0.8		0.2		
Jun-19	0.1	0.1	0.2	0.0	0.1	0.2	0.0	0.1	-0.6	0.1	0.1	-0.4	0.4

Note: There may be inconsistencies in the growth rates arising from rounding.