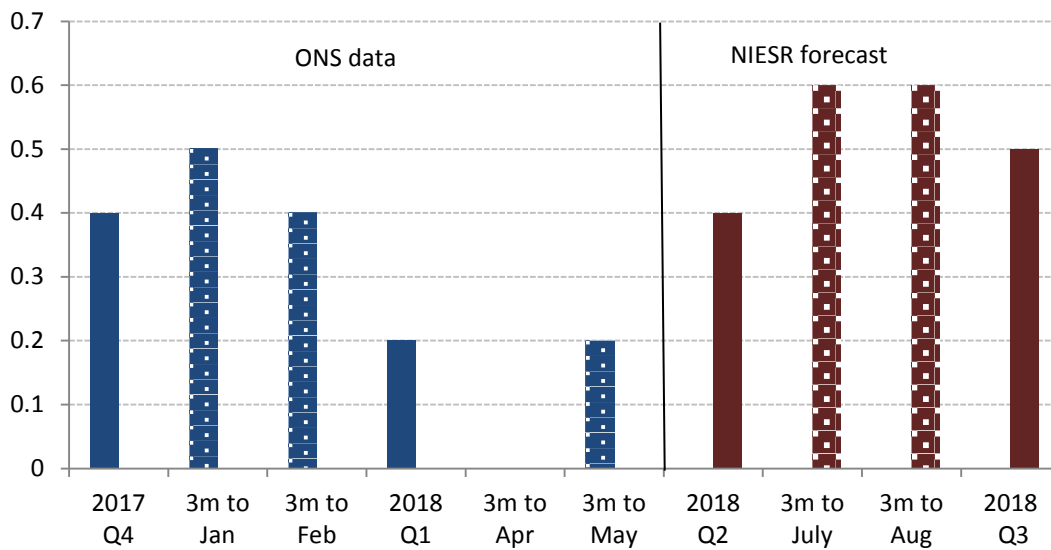




# NIESR MONTHLY GDP TRACKER: July 2018

**GDP Tracker indicates growth of 0.4 per cent in 2018 Q2 and 0.5 per cent in 2018 Q3**

**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.

## Main points

- According to ONS, the UK economy expanded by 0.2 per cent over the three months to May. The outturn was exactly in line with the monthly GDP forecast that we published for the same period last month. Building on the official data, our monthly GDP Tracker suggests that growth is likely to have picked up to 0.4 per cent in the 3 months to June (Q2) which is close to our estimate of potential.
- The estimated increase in three month growth from May (0.2 per cent) to June (0.4 per cent) arises partly because the three month period to June is compared against output in the three month period to March which was impacted by adverse weather conditions and which has now dropped out of the frame of reference.

- Looking ahead into the third quarter, on current trends we expect GDP growth to pick-up a little to around 0.5 per cent. Recent evidence suggests that the manufacturing and construction sectors are recovering after a particularly weak start to the year, and the dominant services sector is set to grow slightly faster than in the recent past.

Commentary from Amit Kara, Head of UK macroeconomic forecasting:

The economy is showing clear signs of recovering from the unexpected slowdown in the first quarter. Taking the business surveys together, we believe that this recovery will be most noticeable in manufacturing and construction where output should start to increase once more. Overall though, we continue to expect the economy to grow broadly in line with its potential in the second and third quarters and not by enough to compensate for the slowdown in the first quarter.

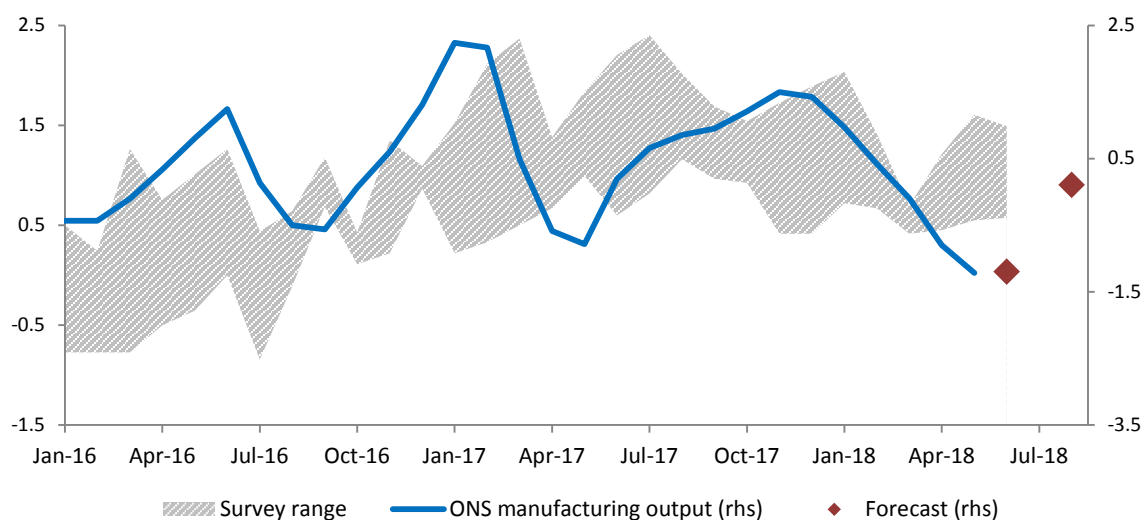
There are a number of plausible explanations for the weakness in the first quarter and the subsequent recovery. Extreme weather in the UK in March appears to have impacted adversely on the construction sector and to some extent on the retail sector as well. Growth in the Euro Area, our largest trading partner, also slowed and some of the weakness there can be attributed to similar one-off factors, particularly in France and Germany. Although Brexit and protectionist agendas loom large, there is little clear evidence that these factors specifically dragged economic growth lower in the first quarter.

The international picture is mixed. Activity in the Euro Area has recovered since the first quarter slowdown, but growth is likely to be subdued in the single currency block compared with the pace achieved in 2017. By contrast, economic growth in the US is expected to gain momentum as the full effects of the fiscal expansion take effect.

### **Production (14 per cent of GDP)**

According to the ONS, manufacturing sector output experienced a sharp downturn in the first four months of the year before nudging higher in May. No doubt, some of that earlier weakness is related to extreme weather conditions, but the slowdown was widespread and export turnover is also lower. According to the ONS, export volume growth has slowed steadily since the peak in January 2017.

**Figure 2:** Manufacturing sector surveys and ONS manufacturing sector growth (3 months on previous 3 months, per cent)



Source: ONS, CBI, Markit, Bank of England Agents, NIESR

Recent survey data however, point to a recovery in manufacturing output although the rebound is muted (Figure 2). The most proximate explanation for the subdued outlook is a tepid global manufacturing sector backdrop; for example the JP Morgan global manufacturing PMI survey showed that the sector had lost momentum in the second quarter. Consistent with that, industrial production data released today suggests that output in France fell in the three months to May.

On the basis of the most recent information, we expect manufacturing output to grow by 0.4 per cent in the third quarter after falling by 1.2 per cent in the second.

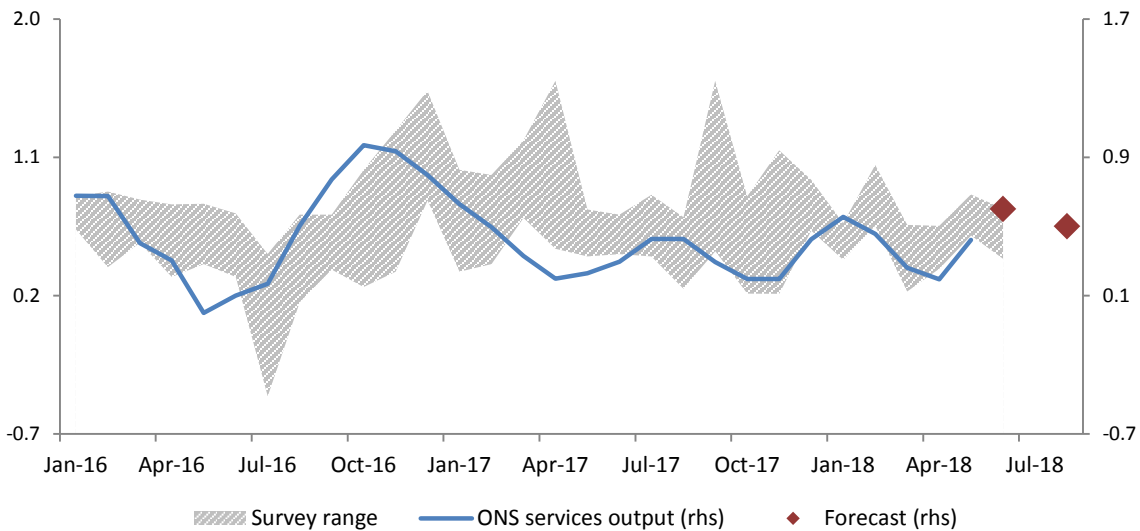
Mining and quarrying is a small and erratic component of the industrial production sub-component. According to the ONS output in May fell by 4.6 per cent in oil and gas extraction because of unplanned maintenance work at an oil and gas terminal. This is likely to have a temporary effect on output. Electricity and gas output fell in May because of above-average temperatures. The ongoing heatwave is likely to mean that output in this sector will remain relatively subdued.

### Services (80 per cent of GDP)

Growth in the dominant service sector eased from 0.4 per cent in the fourth quarter of last year to 0.3 per cent in the first quarter and is set to have expanded by 0.6 per cent in the second quarter. To start with, retail sales bounced back in May mainly because of the Royal Wedding and good weather conditions. According to the Bank of England Agents the service sector has benefitted from M&A activity and projects to implement GDPR and IFRS9. Brexit preparations have also helped lift output. Business surveys as a whole paint a mixed picture with activity somewhat stronger in the near term but the outlook further out appears less certain (Figure 3). The headline output/activity and the forward-looking

components of the major services sector surveys have recovered but other indicators such as the employment intentions index in the IHS Markit/CIPS PMI services and the Bank of England have stabilised at a subdued level in the second quarter. On the basis of these indicators, we expect service sector output to grow by 0.4 per cent in the third quarter.

**Figure 3:** Service sector surveys and ONS manufacturing sector growth (3 months on previous 3 months, per cent)



Source: ONS, CBI, Markit, Bank of England Agents, NIESR

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

According to the ONS, output fell by 2.1 per cent in the 3 months to April but there are some early signs of stability in this sector. Construction sector output rose by 2.9 per cent on a month-on-month basis in May and the IHS Markit/CIPS UK construction PMI balance has been above the no-change 50.0 level for three consecutive months to June.

**Outlook for the whole economy in 2018**

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 see GDP growth of 1.4 per cent in 2018. Our monthly GDP tracker broadly confirms that view. We emphasised in May 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 also a key risk going forward according to the Bank of England Decision Maker Panel. At the global level, there are some very early signs in business surveys that the risk from an escalation in protectionism and a more hostile international trading environment is holding back investment and activity more generally. Input costs for businesses are also rising.

***Our next full UK and global forecast will be published in August.***

### **Health warning:**

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 will be updated as new ONS data and new surveys become available.

It is important to stress that the timelier NIESR guide to quarterly GDP growth will be 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 will provide a guide to average errors based on past performance. NIESR will also each month provide 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 we have adopted a new bottom-up methodology for producing estimates of GDP growth for the current and preceding quarters, we do not yet have a track record of estimates produced by the new approach. Nevertheless we would expect our estimates for GDP growth in the quarter prior to publication to be at least as reliable as those using the old methodology. Using the old methodology, the root mean square error of NIESR's early estimates of GDP for complete calendar quarters was 0.188% point for the period 1999Q3 – 2015Q4 once a noticeable outlier in 2010Q4 is excluded.

Forecast Error Analysis: Quarterly GDP growth (%)

Quarter	ONS first estimate	ONS latest estimate	NIESR estimate made in next quarter (early)	NIESR Prediction made in same quarter (very early)	Error in early estimate	Error made in very early estimate	ONS latest – first
2016Q4	0.6	0.7	0.5	0.7	0.1	-0.1	0.1
2017Q1	0.3	0.4	0.5	0.6	-0.2	-0.3	0.1
2017Q2	0.3	0.2	0.3	0.4	0.0	-0.1	-0.1
2017Q3	0.4	0.4	0.4	0.4	0.0	0.0	0.0
2017Q4	0.5	0.4	0.6	0.4	-0.1	0.1	-0.1
2018Q1	0.1	0.2	0.2	0.5	0.1	-0.4	0.1
Average absolute error					0.08	0.17	0.08

To check how our methodology would work in real time we have gone 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. We can then use these projections to calculate the forecast quarter-on-quarter growth rates for the current quarter and can compare these to the ONS first estimates of quarterly growth. The average absolute error for the 6 quarters that we have calculated was 0.17 % points. The largest error was for 2018Q1 when our GDP tracker had initially expected growth to be 0.5%, 0.4% points higher than the ONS first estimate of GDP growth that was published in April 2018.

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

			Index of Services - Components					Index of Production - Components					
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 Construction	Agriculture
Latest weights	1000	793	334	220	133	106	140	101	12	17	10	60	7
Jan-18	103.1	102.7	102.7	102.7	106.1	103.3	103.3	104.3	98.1	102.6	103.4	107.7	102.1
Feb-18	102.9	102.5	102.5	102.8	105.4	102.9	103.6	104.1	101.5	100.6	105.0	107.2	101.6
Mar-18	102.9	102.7	103.2	100.5	101.9	106.2	103.3	103.7	103.0	97.2	105.7	105.3	101.4
Apr-18	103.1	103.1	103.5	100.7	102.9	106.7	102.3	102.4	99.9	104.1	104.3	105.3	101.5
May-18	103.4	103.3	103.5	100.7	104.1	107.3	101.9	102.8	96.7	99.3	105.6	108.3	101.7
Jun-18	103.6	103.5	103.8	100.8	103.7	107.7	102.3	103.1	97.2	100.0	105.7	108.5	102.0
Jul-18	103.7	103.6	103.8	100.8	103.9	108.1	102.3	103.0	97.2	101.1	105.7	109.5	102.2
Aug-18	103.9	103.7	104.1	100.8	104.0	108.5	102.4	103.2	97.3	100.2	106.0	110.0	102.3
Sep-18	104.1	103.9	104.3	100.9	104.1	108.9	102.5	103.2	98.0	99.2	106.1	110.5	102.4
<b>Percentage change, 3 months on previous 3 months</b>													
Mar-18	0.2	0.3	0.5	-0.4	-1.3	1.4	0.4	-0.1	1.4	2.5	1.7	-0.8	-1.5
Apr-18	0.0	0.2	0.5	-1.2	-2.6	2.2	0.0	-0.8	1.7	3.9	1.7	-2.1	-1.2
May-18	0.2	0.4	0.8	-1.9	-3.0	3.6	-0.6	-1.2	-0.5	4.6	1.2	-1.7	-0.6
Jun-18	0.4	0.6	0.8	-1.2	-0.8	3.0	-1.2	-1.2	-2.9	1.0	0.5	0.6	0.0
Jul-18	0.6	0.7	0.6	-0.6	0.5	2.3	-0.9	-0.4	-4.4	-0.5	0.7	2.7	0.5
Aug-18	0.6	0.5	0.5	0.2	0.9	1.3	-0.1	0.1	-2.6	0.2	0.6	2.9	0.7
Sep-18	0.5	0.4	0.4	0.1	0.4	1.2	0.2	0.4	-0.5	-1.0	0.7	2.5	0.6
<b>Percentage change, month on same month in previous year</b>													
Mar-18	1.3	1.2	1.6	-1.4	-1.6	4.5	3.1	2.5	12.0	-3.9	1.7	-1.1	-1.2
Apr-18	1.5	1.7	2.1	-1.3	-0.6	5.5	1.6	1.0	3.3	5.5	2.0	-1.2	-1.1
May-18	1.5	1.7	1.8	-1.1	0.6	5.4	0.8	1.2	-1.5	-0.3	2.7	1.6	-0.9
Jun-18	1.4	1.5	1.8	-1.6	-0.6	5.6	0.7	1.0	0.0	-3.4	2.7	1.1	-0.8
Jul-18	1.5	1.6	1.9	-1.8	-0.1	6.0	0.4	0.7	-1.6	-1.7	3.2	2.8	-0.9
Aug-18	1.5	1.7	2.0	-1.6	-0.3	6.2	0.4	0.7	-2.1	-1.6	3.9	1.7	-1.2
Sep-18	1.7	2.0	2.4	-1.2	-0.6	6.5	-0.3	-0.1	-2.5	-4.1	5.3	3.2	-1.4
<b>Percentage change, month on previous month</b>													
Mar-18	0.0	0.2	0.7	-2.2	-3.3	3.2	-0.3	-0.4	1.5	-3.4	0.7	-1.8	-0.2
Apr-18	0.2	0.4	0.3	0.2	1.0	0.5	-1.0	-1.3	-3.0	7.1	-1.3	0.0	0.1
May-18	0.3	0.2	0.0	0.0	1.2	0.6	-0.4	0.4	-3.2	-4.6	1.2	2.9	0.2
Jun-18	0.2	0.2	0.3	0.1	-0.3	0.4	0.4	0.3	0.6	0.7	0.1	0.2	0.3
Jul-18	0.1	0.1	0.0	0.0	0.2	0.4	0.0	-0.1	-0.1	1.1	0.0	0.9	0.2
Aug-18	0.2	0.2	0.3	0.0	0.1	0.4	0.1	0.2	0.1	-0.9	0.2	0.5	0.1
Sep-18	0.2	0.2	0.3	0.0	0.1	0.3	0.1	0.1	0.7	-1.0	0.2	0.4	0.0