Press Release
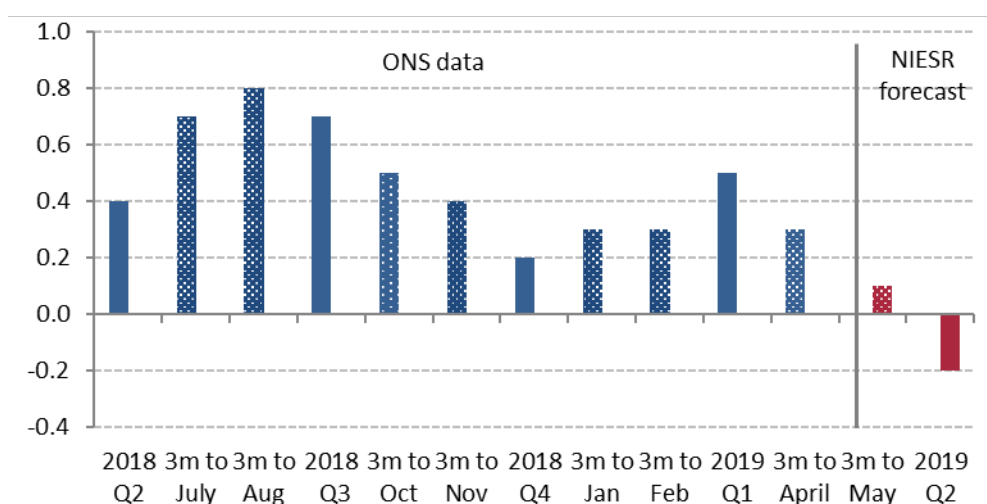
NIESR MONTHLY GDP TRACKER: June 2019

UK economy slows as stockpiling boost fades

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

- The UK economy is on course to contract by 0.2 per cent in the second quarter of 2019, a marked slowdown from the first quarter when growth was boosted by stockbuilding ahead of the original Brexit departure date (figure 1).
- According to new ONS statistics published this morning, the UK economy expanded by 0.3 per cent in the three months to April. This outturn was weaker than the 0.4 per cent growth rate that we forecast last month for the same period.
- The slowdown in the three-month growth rate was associated with a 0.4 per cent fall in GDP in April, driven by falls in the production and construction sectors. Within manufacturing, there was a 24 per cent fall in car manufacturing related to factory shutdowns planned for after the original Brexit departure date. Output in the service sector was flat in April.
- Recent surveys suggest that there has not been a material recovery in output in May. Economic contraction of 0.2 per cent in the second quarter is expected to be mainly driven by the production and construction sectors, with a small positive contribution from the service sector.

Garry Young, Head of Macroeconomic Modelling and Forecasting, said *"The UK economy is on course to contract by 0.2 per cent in the second quarter. The latest GDP data were weaker than expected, partly reflecting shifts in production around the original Brexit departure date, including a 24 per cent fall in car manufacturing. The underlying picture is also quite weak, with Brexit-related uncertainty at home and trade tensions abroad dragging on investment spending and economic growth".*

Economic background

The short-term outlook for the UK economy continues to be dominated by political and economic uncertainty related to Brexit negotiations, against the background of subdued global demand. Under the central scenario of a soft Brexit, the May 2019 NIESR UK forecast is for GDP growth of around 1½ per cent in 2019. But the risks to that forecast are tilted to the downside because of uncertainty acting as a drag on investment spending.

The inaugural meeting of the NIESR Business Conditions Forum, a quarterly meeting for chief economists/senior economists from major business and survey organisations, policy making institutions and NIESR, discussed the evidence that uncertainty was affecting the UK economy. As was clear from the official data, GDP had been boosted in the first quarter by stockbuilding ahead of possible disruption around the original Brexit departure date. But most participants also pointed to downside risks associated with weak investment and trade tensions in the global economy that were expected to dampen growth prospects over the rest of the year.

Forecast news

The latest monthly data was weaker than had expected last month, and we have revised down our estimate of growth for the second quarter of 2019 to -0.2 per cent. Figure 2 shows how our short-term forecasts for recent quarters have changed as new information has become available.   As is clear, the latest revision is a material change from last month.

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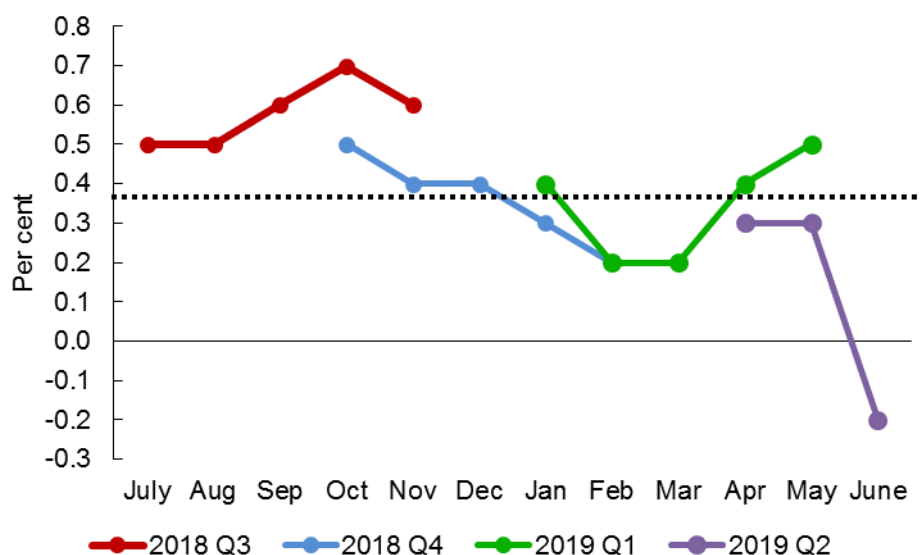

Figure 3 shows a heat map of the data surprises across sectors in the monthly data, highlighting the sectors where the surprises are large relative to the volatility of the output data. It shows that this month the main negative surprises were in the service sector, where

output fell in business services, finance and government, and in production, where manufacturing output fell sharply.

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
Apr-19	-1.4	-1.8	-0.1	0.6	-5.1	3.1	-0.8	-0.2	-0.8	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

Economic contraction of 0.2 per cent in the second quarter is expected to be mainly driven by the production and construction sectors, with a small positive contribution from the service sector. The reduced positive contribution of the service sector points to some underlying weakness in the economy.

Figure 4: Contributions to quarterly GDP growth (percentage points)
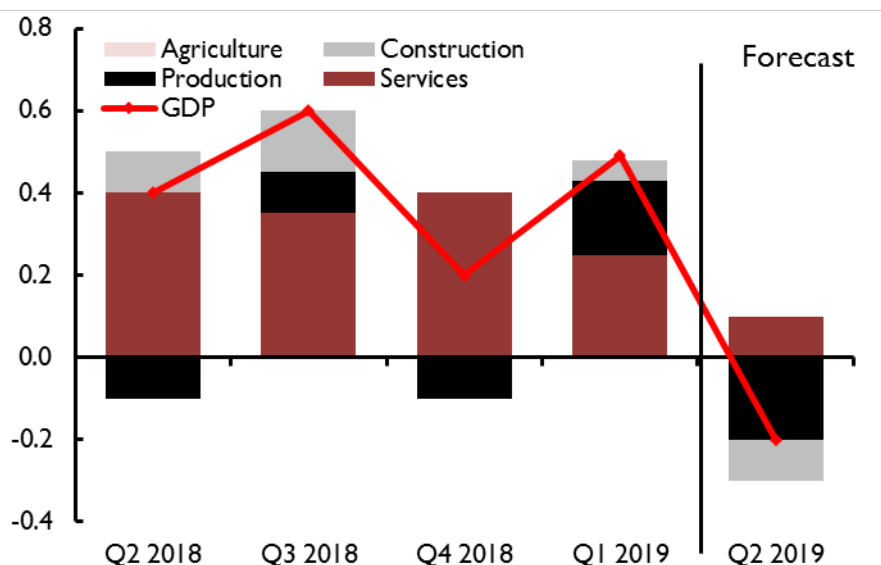
Services (80 per cent of GDP)

According to ONS, growth in the service sector was 0.2 per cent in the three months to April, 0.3 percentage points weaker than our previous estimate. Within the service sector, there was positive growth in information and communication in April, but this was in part offset by a contraction in professional, scientific and technical activities.

Figure 5 ONS service sector growth (3 months on previous 3 months, per cent) compared with swathe of business survey balances (standardised)
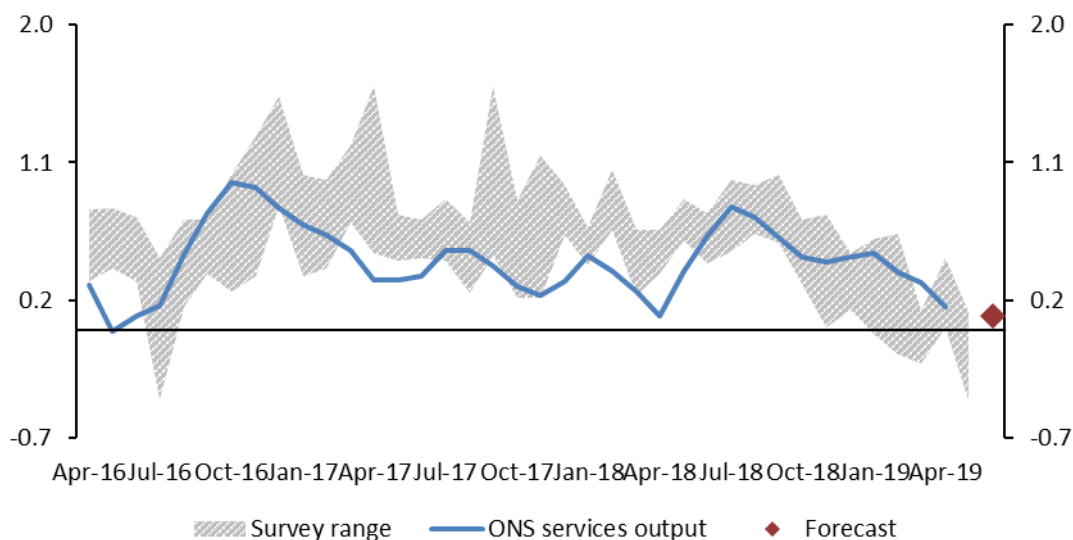
Note: The shaded swathe shows the highest and lowest values each month of a range of business survey balances that have been standardised so that they have the same mean and standard deviation as the quarterly growth of the ONS series. Source: ONS, CBI, Markit, Bank of England Agents, EC, NIESR calculations.

Modest service sector growth in April was consistent with the positive signal from survey balances, which had picked up after signalling falling output in March (figure 5). But there was a further dip in most survey balances in May, with most signalling a fairly static outlook. An exception was the prominent headline business activity balance in the IHS Markit/CIPS UK services PMI survey which picked up to 51.0 in May from 50.4 in April. While IHS/Markit reported that survey respondents had noted 'a slight improvement in underlying business conditions since the start of the Spring', they also noted that the 'rate of new business expansion was only marginal in May'.

This picture of fairly static service sector output was also apparent globally. The J.P.Morgan Global Services PMI fell from 52.7 in April to 51.6 in May, its lowest level in three years.

There is little evidence of confidence in the UK service sector. The UK services confidence indicator, collected by the EU, was -15.1 in May, down from -6.9 in April, the seventh consecutive negative reading.

This survey evidence suggests a continuation of very slow service sector growth of around 0.1 per cent in the second quarter of 2019.

Production (14 per cent of GDP)

Production output rose by 0.7 per cent in the three months to April. The outturn was weaker than the forecast of 1.5 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 1.1 per cent in the three months to April, weaker than what we had expected last month. The increase in this three-month period was mainly due to higher production for stockpiling in February and March ahead of the original Brexit departure date. Manufacturing output fell by 3.9 per cent in April as this earlier positive effect was unwound.

We are now expecting manufacturing output to come more closely into line with the business surveys have been signalling a more subdued underlying outlook, partly because inventories are already high (figure 6). For example, the latest IHS Markit/CIPS UK manufacturing survey saw 'a sharp easing in the rate of increase in finished goods stocks and pre-production inventories drop for the first time in ten months'.

Figure 6: ONS manufacturing sector growth (3 months on previous 3 months, per cent) compared with swathe of business survey balances (standardised)
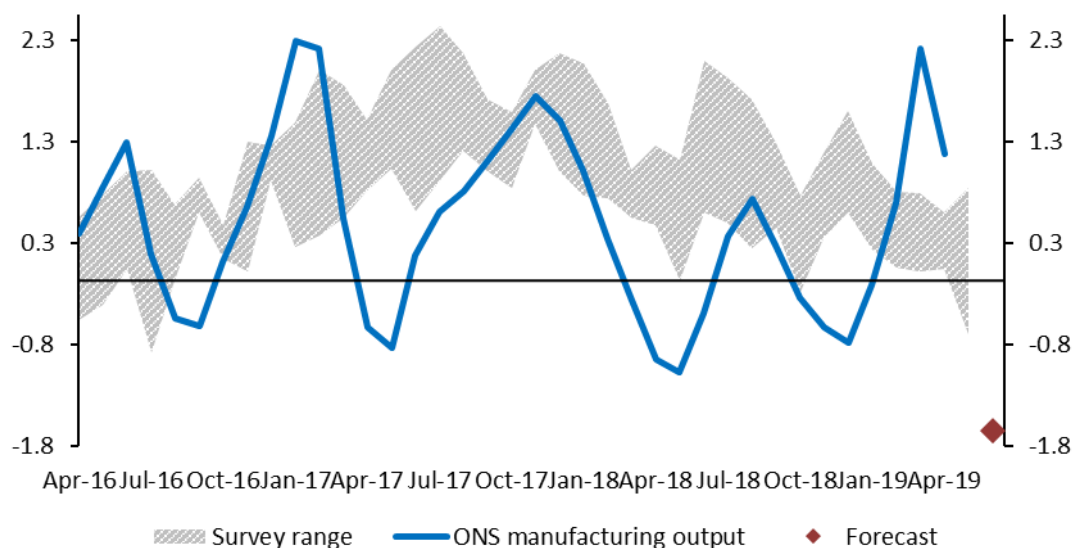
Note: The shaded swathe shows the highest and lowest values each month of a range of business survey balances that have been standardised so that they have the same mean and standard deviation as the quarterly growth of the ONS series. Source: ONS, CBI, Markit, Bank of England Agents, NIESR calculations

Consistent with less stockbuilding, the IHS Markit/CIPS UK manufacturing PMI balance fell sharply back to 49.4 in May from 53.1 in April. The May CBI Industrial Trends survey points to a similar picture with manufacturers expecting output to be broadly flat in the rest of the coming quarter, with 27% predicting growth, and 24% a decline, giving a balance of +3%

Partly this subdued outlook may reflect a deterioration in manufacturing more globally: the J.P.Morgan Global Manufacturing PMI fell to 49.8 in May, down from a revised 50.4 in April. It was reported that global 'business conditions deteriorated to the greatest extent in over six-and-a-half years, as production volumes stagnated and new orders declined at the fastest pace since October 2012.

Against this background, manufacturing sector output is set to register a fall of 1.6 per cent in the second quarter of 2019, as much of the expansion in the first quarter is reversed.

Mining and quarrying

Mining and quarrying is a small and erratic component of the industrial production sub-component. Output grew by 2.9 per cent in the three months to April, broadly in line with the increase we had forecast last month.

Construction (6 per cent of GDP)

Output in the construction sector grew by 0.4 per cent in the three months to April. This was weaker than expected. The latest reading from the HIS Markit/CIPS construction PMI survey signalled a fall in construction activity, with the headline business activity balance falling to 48.6 in May, down from 50.5 in April. The monthly pattern of growth, with very strong output in January and February points to modestly negative growth in the second quarter.

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 in April 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 estimate	ONS latest estimate	NIESR nowcast*	Error in NIESR nowcast**	ONS latest – first
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 error				0.20	0.09

* Made in the second month of the quarter, 3 months ahead of ONS first estimate

** ONS first estimate - NIESR estimate

Notes for editors: For further information please contact the NIESR Press Office or Luca Pieri on 020 7654 1931/ l.pieri@niesr.ac.uk

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

2016=100	GDP index	Index of Services	Index of Services - Components				Index of Production	Index of Production - Components				Index of Construction	Agriculture
			Business services and finance	Government and other services	Distribution, Hotels and Restaurants	Transport, Storage and Communications		Manufacturing	Electricity, gas, steam and air conditioning	Mining and Quarrying	Water Supply, Sewerage and Waste Management		
Latest weights	1000	793	334	220	133	106	140	101	12	17	10	60	7
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	100.0
Sep-18	104.3	104.2	103.8	101.1	105.3	110.7	102.8	103.6	97.1	103.7	102.8	109.7	100.5
Oct-18	104.5	104.5	104.2	101.4	106.0	110.3	102.5	103.0	97.1	105.8	102.3	109.4	101.1
Nov-18	104.7	104.9	104.4	101.6	107.0	110.7	102.3	103.1	96.5	103.9	102.0	108.7	101.0
Dec-18	104.4	104.7	104.2	101.5	106.0	111.4	101.9	102.5	96.3	104.7	102.3	106.0	100.2
Jan-19	104.9	105.0	104.0	101.7	107.4	111.8	103.0	104.1	96.5	104.5	100.7	109.5	99.4
Feb-19	105.2	105.1	104.3	101.8	107.5	111.8	103.6	105.1	93.6	107.6	100.6	110.0	98.8
Mar-19	105.1	105.0	104.3	101.7	107.5	111.2	104.3	106.1	93.0	108.6	100.2	107.9	98.7
April-19	104.6	105.0	104.1	101.5	107.5	112.1	101.5	102.0	96.0	105.9	100.4	107.5	98.7
May-19	105.0	105.2	104.4	101.5	107.7	112.3	102.8	104.0	94.6	106.1	100.6	107.9	98.8
Jun-19	105.1	105.3	104.6	101.5	107.8	112.6	102.9	104.2	93.5	106.5	100.8	107.4	98.9
Percentage change, 3 months on previous 3 months													
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	0.3	0.5	0.4	0.6	0.3	0.8	-0.8	-0.7	-1.5	-0.8	-0.9	-0.6	0.6
Jan-19	0.3	0.5	0.2	0.4	0.9	0.8	-0.4	-0.2	-1.1	-1.1	-1.1	-0.9	-0.3
Feb-19	0.3	0.4	0.0	0.3	0.8	1.0	0.3	0.6	-1.5	1.1	-1.1	-0.7	-1.4
Mar-19	0.5	0.3	-0.1	0.2	1.1	0.7	1.4	2.2	-2.3	2.0	-1.7	1.0	-1.8
April-19	0.3	0.2	0.0	0.1	0.7	0.4	0.7	1.1	-2.3	2.9	-1.2	0.4	-1.5
May-19	0.1	0.1	0.1	-0.1	0.5	0.2	0.0	0.1	-1.0	1.2	-0.8	-0.7	-0.7
Jun-19	-0.2	0.1	0.2	-0.2	0.2	0.6	-1.2	-1.6	0.4	-0.7	0.1	-1.4	-0.2
Percentage change, month on same month in previous year													
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	1.2	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	1.5	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
April-19	1.3	1.6	0.6	0.9	3.6	4.5	-1.0	-0.8	-4.0	0.0	0.1	2.4	-1.7
May-19	1.4	1.5	0.9	0.9	2.2	4.0	1.0	0.8	-0.1	4.5	-0.6	0.8	-1.5
Jun-19	1.1	1.5	1.0	0.8	2.3	3.4	0.1	0.0	-1.6	3.6	-2.3	-0.5	-1.1
Percentage change, month on previous month													
Nov-18	0.2	0.4	0.2	0.2	0.9	0.4	-0.2	0.1	-0.6	-1.8	-0.3	-0.6	-0.1
Dec-18	-0.3	-0.2	-0.2	-0.1	-0.9	0.6	-0.4	-0.6	-0.2	0.8	0.3	-2.5	-0.8
Jan-19	0.5	0.3	-0.2	0.2	1.3	0.4	1.0	1.6	0.2	-0.2	-1.6	3.3	-0.8
Feb-19	0.3	0.1	0.3	0.1	0.1	0.0	0.6	1.0	-3.0	3.0	-0.1	0.5	-0.6
Mar-19	-0.1	-0.1	0.0	0.1	0.0	-0.5	0.7	1.0	-0.6	0.9	-0.4	-1.9	-0.1
April-19	-0.5	0.0	-0.2	-0.2	0.0	0.8	-2.7	-3.9	3.2	-2.5	0.2	-0.4	0.0
May-19	0.4	0.2	0.3	0.0	0.1	0.2	1.3	2.0	-1.4	0.2	0.2	0.4	0.1
Jun-19	0.1	0.1	0.2	0.0	0.2	0.2	0.1	0.2	-1.2	0.4	0.1	-0.4	0.1

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