



NIESR GDP Tracker

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NIESR Trackers

- NIESR nowcasting toolkit
- What's next...



NIESR Trackers



NIESR Trackers

To assess the state of the UK economy in real time...

Econometric models

including MIDAS,
systems of equations,
trimmed mean

Model inputs

including ONS data,
surveys, financial market
data, weather data ext.



GDP nowcasts

Monthly GDP Tracker



**Industry / bottom-up
model**

Quarterly GDP
Tracker



MIDAS model



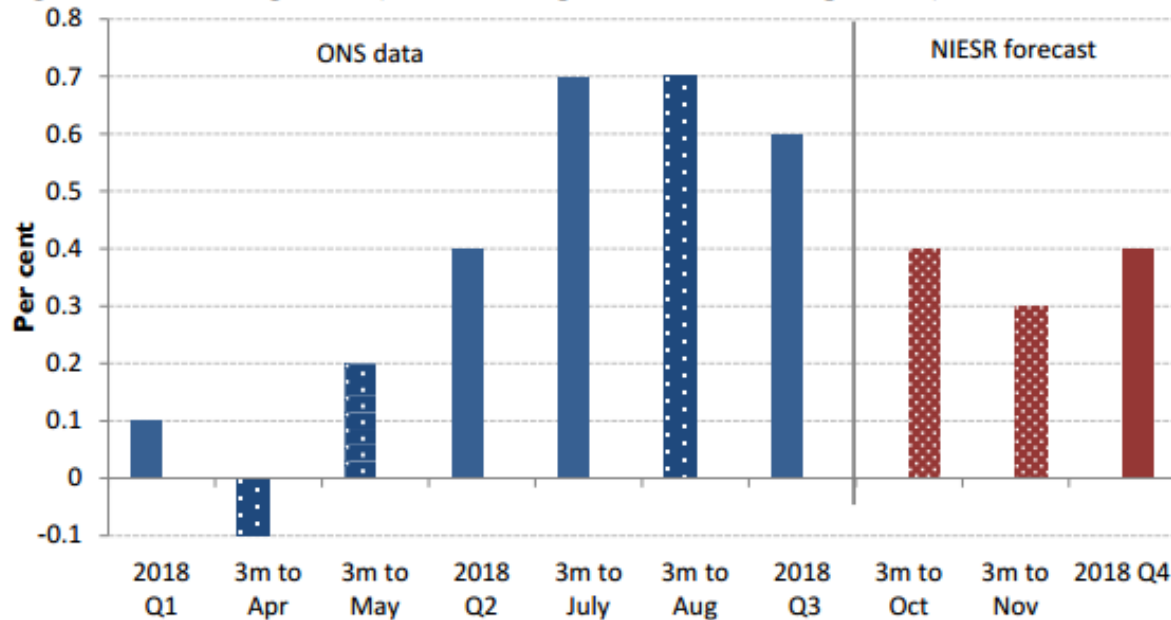
NIESR Monthly GDP Tracker

- NIESR has provided a **monthly GDP estimate** for more than 20 years (M-1), which was based on ONS monthly and quarterly data.
- The **ONS initiative** to publish monthly GDP (M-2) led us to revisit it.
- Since July, we have been publishing the **NIESR Monthly GDP Tracker**.
- **Narrative** published along with the forecast for 3m rolling quarterly GDP growth.



NIESR Monthly GDP Tracker (Nov 2018)

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



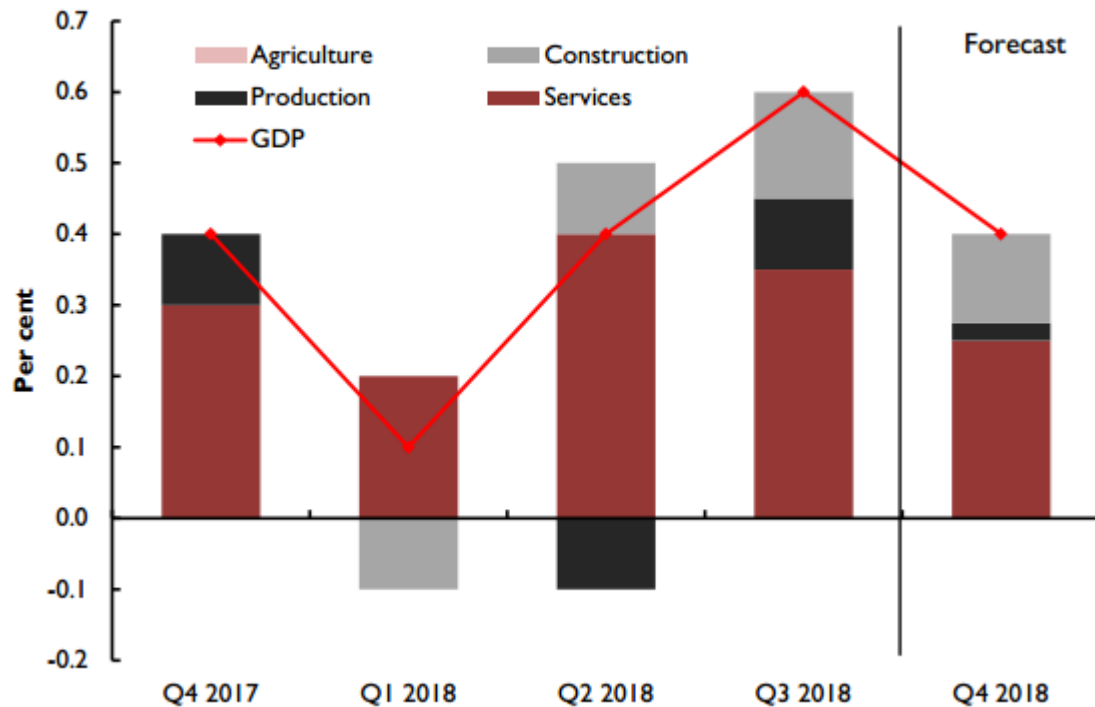
Source: NIESR, ONS

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



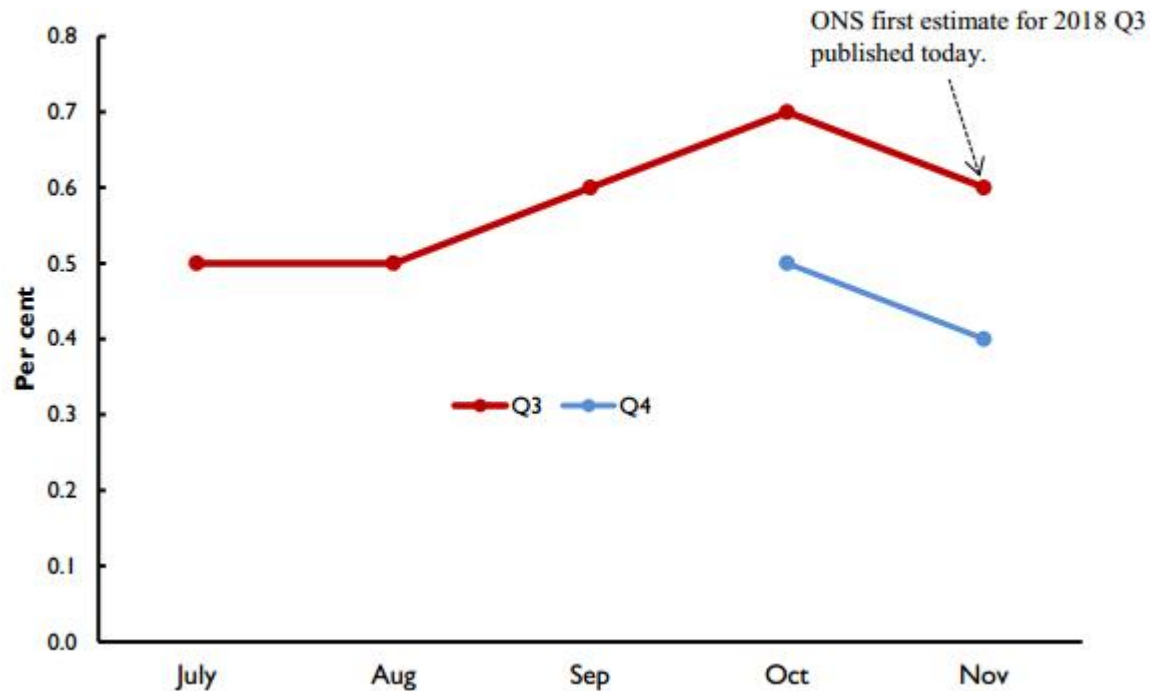
NIESR Monthly GDP Tracker (Nov 2018)

Figure 2: Contributions to quarterly GDP growth (percentage points)



NIESR Monthly GDP Tracker (Nov 2018)

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



NIESR Monthly GDP Tracker

- **Statistical models** (single equation and system of equations) of ten sub-components of GDP: IOS and key components, IOP and key components, IOC and Agriculture.
- Take account of recent trends in the ONS data, consumer and business surveys, weather data



INDEX OF SERVICES		
Business services and finances	$BS_t = C + \beta_1 BS_{t-1} + \beta_2 SURVEY_t$	BS = Business services and financed from ONS
	where $SURVEY_t = C + \gamma_1 SURVEY_{t-1} + \gamma_2 SURVEY_{t-1}$	SURVEY = DGECFIN Business Climate
Government services	$GOVT_t = c + \beta_1 GOVT_{t-2} + \beta_2 GOVT_{t-3}$	GOVT = Government services data from ONS
Distribution, hotels and restaurants	$DISTR_t = c + \beta_1 DISTR_{t-1} + \beta_2 DISTR_{t-2} + \beta_3 COF_{t-1}$	DISTR = distribution ext from ONS
	$COF_t = c + \gamma_1 DISTR_{t-1} + \gamma_2 DISTR_{t-2} + \gamma_3 COF_{t-1}$	COF = DGECFIN Consumer Confidence indicator
Transport, storage and comms	$TRANS_t = c + B_1 TRANS_{t-1} + B_2 TRANS_{t-3}$	TRANS = transport ext
INDEX OF PRODUCTION		
Manufacturing	$MANUF_t = C + \beta_1 MANUF_{t-1} + \beta_2 MANUF_{t-2} + \beta_3 SURVEY_{t-1} + \beta_4 SURVEY_{t-2}$	MANUF = manufacturing data from ONS
	$SURVEY_t = C + \gamma_1 MANUF_{t-1} + \gamma_2 MANUF_{t-2} + \gamma_3 SURVEY_{t-1} + \gamma_4 SURVEY_{t-2}$	Survey = DGECFIN expectations of production in next 3 months
Water Supply	$WATER_t = C + \beta_1 WATER_{t-1} + \beta_2 WATER_{t-2}$	WATER = water data from ONS
Electricity, gas steam and air con	$electricity_t = C + \beta_1 electricity_{t-1} + \beta_2 electricity_{t-2} + \beta_3 \delta_{mintemp}$	electricity = electricity ext. from ONS mintemp = minimum temperature recorded from MET Office
Mining and quarrying	$extract_t = C + \beta_1 extract_{t-1} + \beta_2 extract_{t-2} + \beta_3 mintemp_{t-2}$	extract = mining and quarrying data from ONS mintemp = minimum temperature recorded from MET Office
INDEX OF CONSTRUCTION		
construction	$IOC_t = c + \beta_1 IOC_{t-1} + \beta_2 SURVEY_{t-2}$	IOC = index of construction data from ONS
	where $SURVEY_t = C + \gamma_1 SURVEY_{t-1} + \gamma_2 AIRFROST_{t-1}$	SURVEY = DGECFIN survey: factors limiting construction activity - weather AIRFROST = data from MET Office on days of airfrost



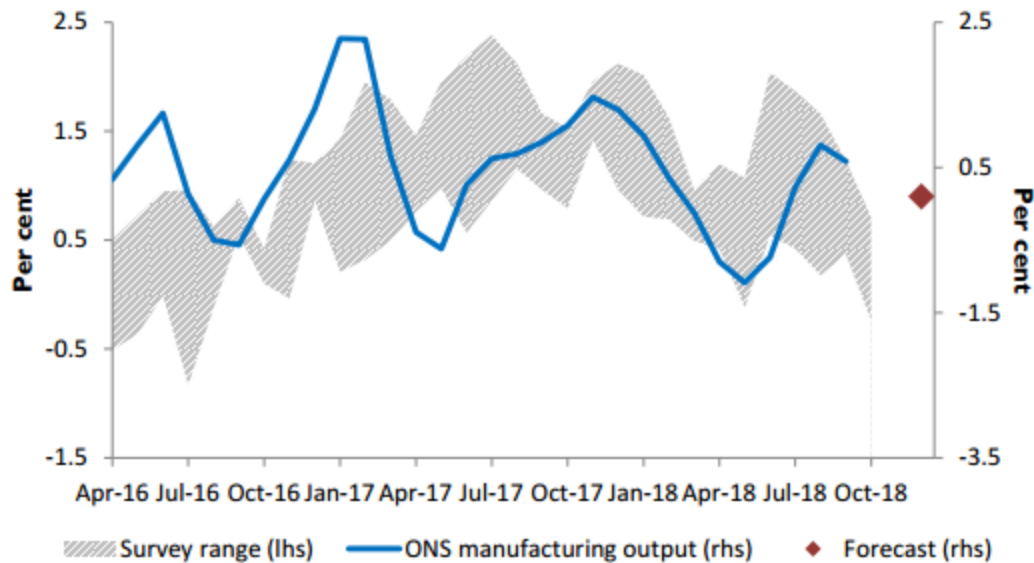
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Judgement is then applied to separate the signal from the noise based on a range of **other available information and intelligence**.



NIESR Monthly GDP Tracker (Nov 2018)

Figure 4: Manufacturing sector surveys and ONS manufacturing sector growth (3 months on previous 3 months, per cent)

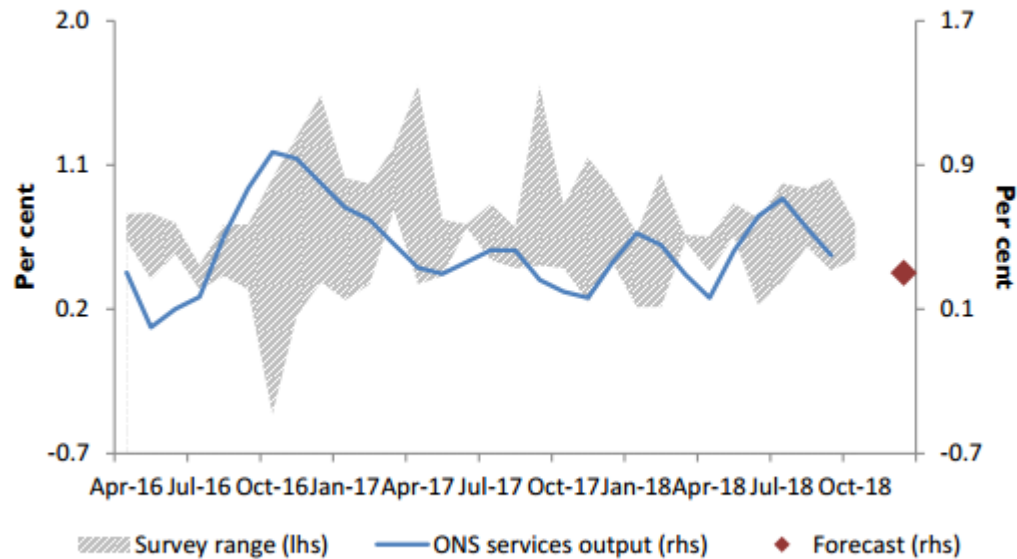


Source: ONS, CBI, Markit, Bank of England Agents, NIESR



NIESR Monthly GDP Tracker (Nov 2018)

Figure 5: Service sector surveys and ONS sector growth (3 months on previous 3 months, per cent)



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



NIESR Monthly GDP Tracker

Our monthly GDP Tracker gathers a lot of attention in the press and is a useful guide for the ONS and Bank of England

3 . The UK economy grew by 0.6% in Quarter 3 2018

UK gross domestic product (GDP) is estimated to have increased by 0.6% in Quarter 3 (July to Sept) 2018, in line with latest market expectations, including the Bank of England's (BoE) [November 2018 Inflation Report \(PDF, 5 MB\)](#) and the National Institute of Economic and Social Research's (NIESR) [GDP tracker](#).

Following a temporary slowdown in the first quarter of the year, GDP increased by 0.4% in Quarter 2 (Apr to June). In comparison with the same quarter in the previous year, the UK economy has grown by 1.5% (Figure 1), continuing its relatively subdued performance over the last year. In line with the [National Accounts Revisions Policy](#), no previous quarters are open for revision as part of this publication.

Source: ONS November quarterly GDP release



Forecast performance

Quarterly GDP growth (%)

Quarter	ONS first estimate	ONS latest estimate	NIESR nowcast*	Error in NIESR nowcast**	ONS latest – first
2016Q4	0.6	0.7	0.7	-0.1	0.1
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	0.4	0.4	0.0	0.0
2017Q4	0.5	0.4	0.4	0.1	-0.1
2018Q1	0.1	0.1	0.5	-0.4	0.0
2018Q2	0.4	0.4	0.0	0.4	0.0
2018Q3	0.6	0.6	0.5	0.1	n.a.
Average absolute error				0.19	0.07

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

** ONS first estimate - NIESR estimate

