



‘Real world data for faster indicators of local and national economic activity’ by Louisa Nolan, Justinas Cirtautas, Sebnem Oguz and Wil Roberts

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National Institute of Economic and Social Research

Background

- ONS are putting considerable resource into responding to Bean review, including need for timely economic data .
- Further funding boost of £9 million announced by Chancellor last Friday (12th April) ‘to develop cutting-edge methodologies for measuring how the UK economy is performing’
- Emphasis on ‘super-fast’ indicators of how economy is developing in real time and on keeping pace with changing economy
- Not just about GDP, objective is ‘to provide an early picture of a range of activities that supplement official economic statistics’
- Explicitly warned not to use new indicators to forecast or predict GDP: ‘the indicators should not be used in this way’



Monthly GDP

- ONS began publishing monthly GDP on 10 July 2018 with estimate for May – ie a six-week lag
- Where do new indicators fit with already timely indicators such as monthly GDP?
- Important to provide some context – what do indicators tell us relative to what is already known



NIESR GDP Tracker

- Since July 2018 NIESR have produced short-term forecasts of monthly GDP – GDP Tracker.
- Aim is to lay down a benchmark path and provide a way to assess news
- Approach is to forecast monthly path of GVA in 10 industries using ONS data plus surveys and weather information
- ONS monthly data is volatile, especially in some sectors
- If just had ONS output data could use generalisation of

$$\Delta \ln x_t^i = a + b \Delta \ln x_{t-1}^i + e_t^i$$

- Survey data provides an early estimate of e_t^i as it is more timely than ONS data. (PMI balances are available a month earlier than ONS data). So can estimate

$$\Delta \ln x_t^i = a + b \Delta \ln x_{t-1}^i + c PMI_t + e_t^i$$



Month-ahead GDP Tracker errors

	business	government	distribution	transport	manufacturin	electricity	mining	water	construction	agriculture
weight	0.33	0.22	0.13	0.11	0.1	0.01	0.02	0.01	0.06	0.01
Jun-18	-1.70656	0	0	0.656829	0.149302	-0.29664	-0.75332	1.855374	0.866292	-0.84515
Jul-18	1.137709	-1.46603	0.71586	-1.31366	-0.1493	0.494401	1.381083	-0.24738	-0.13328	0.169031
Aug-18	-0.56885	-0.73302	-0.47724	0.656829	-0.44791	1.483203	2.32273	0.74215	-0.86629	-0.16903
Sep-18	-0.56885	0.733017	-1.90896	0.437886	0	-0.59328	0.753318	-0.98953	0.733017	0.169031
Oct-18	1.137709	1.466033	0.11931	-1.75154	-1.49302	-1.28544	1.569412	-0.86584	-0.33319	0.169031
Nov-18	-0.56885	0	0.95448	0	-0.1493	-1.77984	-0.31388	-0.49477	0	0.169031
Dec-18	-0.56885	0	-0.71586	-0.43789	-1.64232	-1.28544	0.564988	0.74215	-2.06577	0.507093
Jan-19	-1.42214	-0.73302	1.31241	1.094716	0.597207	-0.79104	0.564988	-0.98953	1.132844	-2.53546
Feb-19	0.284427	1.466033	0.71586	0.875772	1.64232	-0.79104	1.820518	-0.74215	0.533103	0.845154

Red signifies downside news and Green upside news (error/standard error < or > 1)

- String of correlated downside news would be cause for concern.



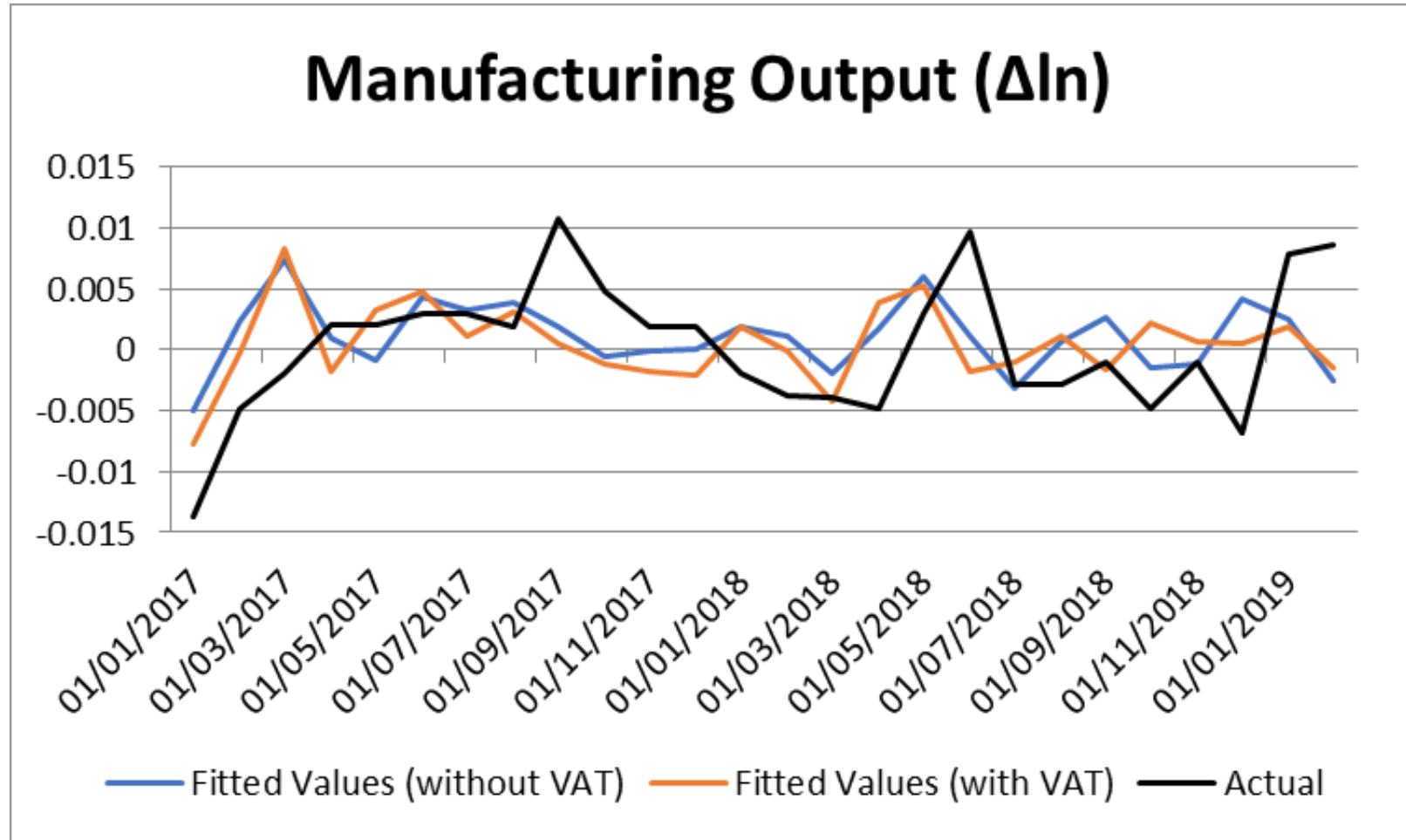
Statistical impact of new faster data

- New data series are statistically significant when added to monthly equations:

Sector	Indicator	Coefficient (t-statistic)
Manufacturing	VAT diffusion (proportion)	0.028*** (2.63)
Business	VAT diffusion (proportion)	0.011* (1.83)
Transport	Long vehicles (2 month lag)	0.06** (2.30)
Distribution	Long vehicles (2 month lag)	0.02** (2.18)



Impact of new faster data: more marginal effect on short-term forecasts



Assessment

- ONS has large agenda for improving quality of economic statistics
- Faster economic indicators are welcome and, despite ONS caveats, appear to provide useful information for tracking GDP

