Faster economic indicators from big data

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The longer a decision-maker has to wait for the statistics, the less useful they are likely to be

Professor Sir Charles Bean (2016)
Review of UK economic statistics
Faster indicators of the economy

-6%

Change in UK GDP between first quarter of 2008 and second quarter of 2009

5 years

Length of time from 2008 for the UK economy to return to pre-recession size

£12b

Estimated value for earlier identification of 2008 downturn

Fig 1. UK GDP Growth Rate

Fig 2. ONS National Accounts Publication Timetable
Business value added tax (VAT) returns

- Expenditure and turnover diffusion indices
- Reporting behaviour
- Available up to 1 month before GDP
Road traffic data

- Highways England sensor data
- Average speeds
- All-England and English ports
- By vehicle length
- Available 2 months before GDP
Shipping Automated Information System (AIS) data

- Marine and Coastguard Agency, ORBCOMM, Global Platform
- Ship tracking data
- Port traffic frequency
- Time in port
- Real time
• VAT is a good indicator of large change
• Last recession identified 5 months before official statistics
• Novel repayments indicators show financial stress
• Care with over-interpretation and beware bias!
Economy lost momentum in first quarter, ONS ‘big data’ show

New system based on VAT returns aims to be early warning for looming problems

Even a skip-counter like me agrees economic indicators need updating

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oday I want to take you away from the Alice in Wonderland world of Brexit, populated by strange creatures often called Steve or John, and deal with something that will still be important long after the dust has settled. My interest was piqued
Data & statistics only have value when used

VAT, Shipping GPS & road traffic sources add to our existing official statistics

Big data opportunity. Faster detailed understanding

We are all learning! Collaborate and share
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