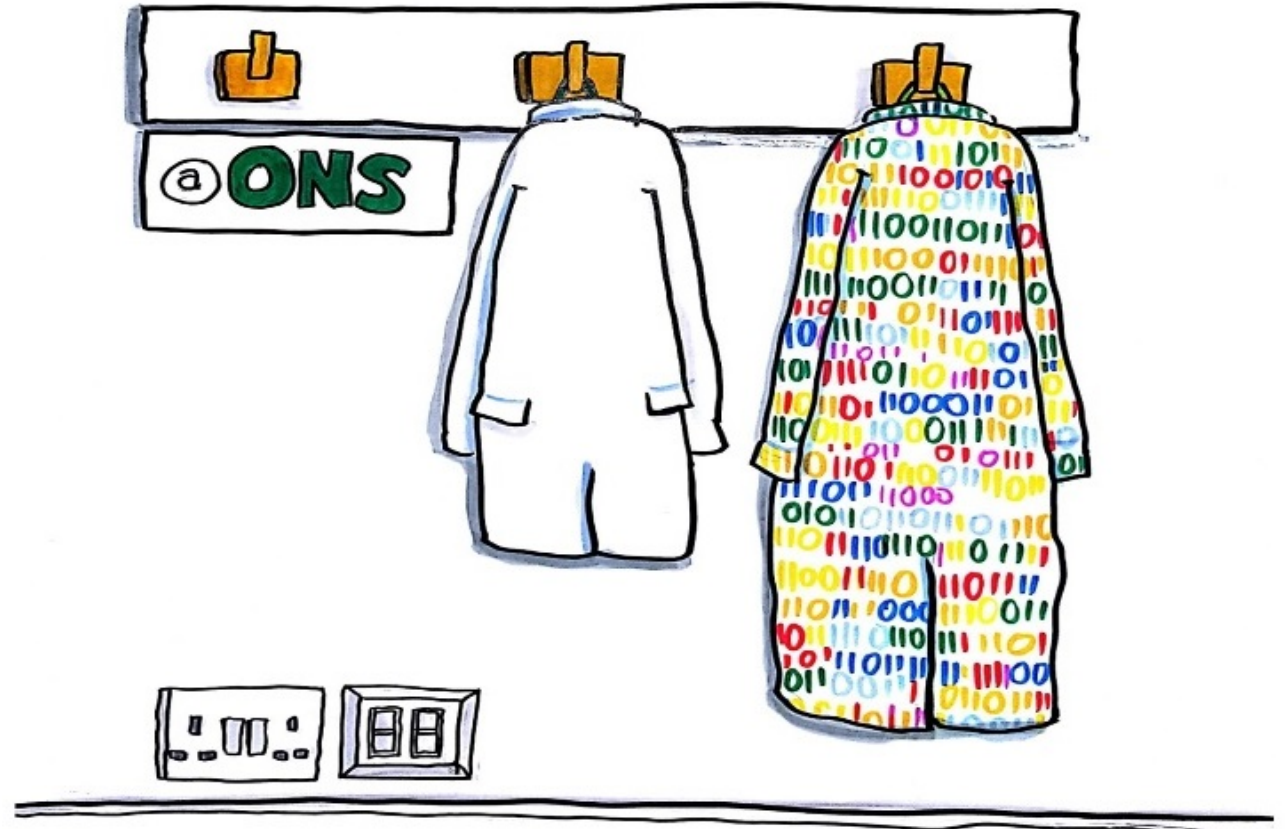


Faster economic indicators from big data

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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

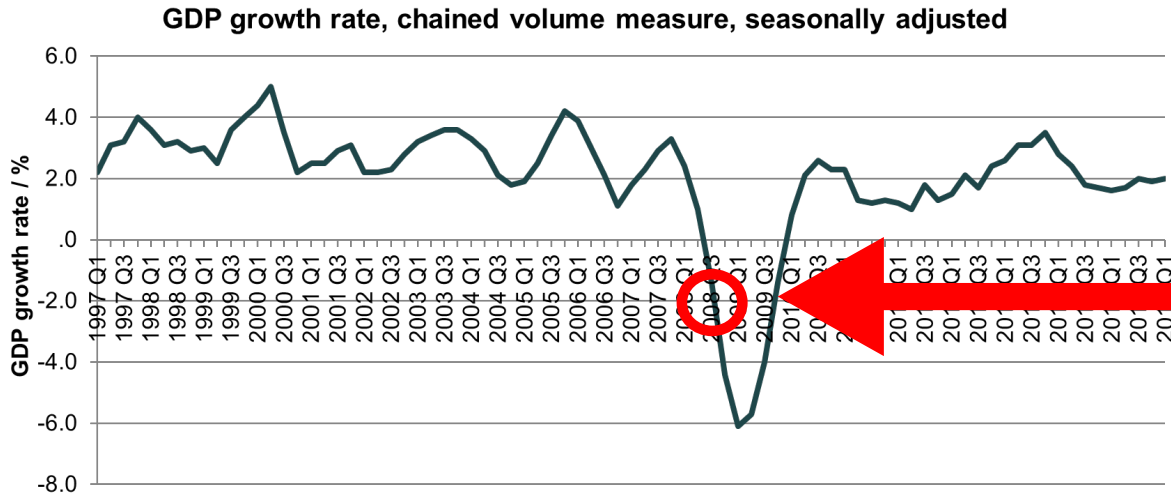


Fig 1. UK GDP Growth Rate

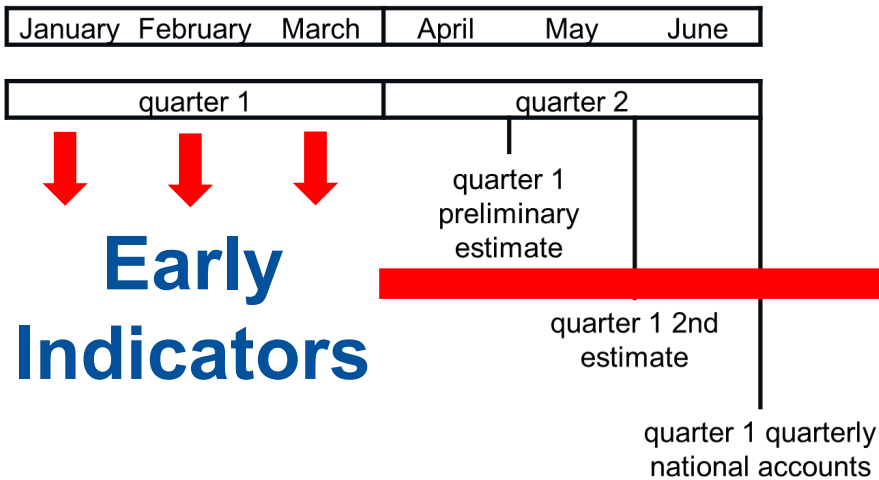


Fig 2. ONS National Accounts Publication Timetable

-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

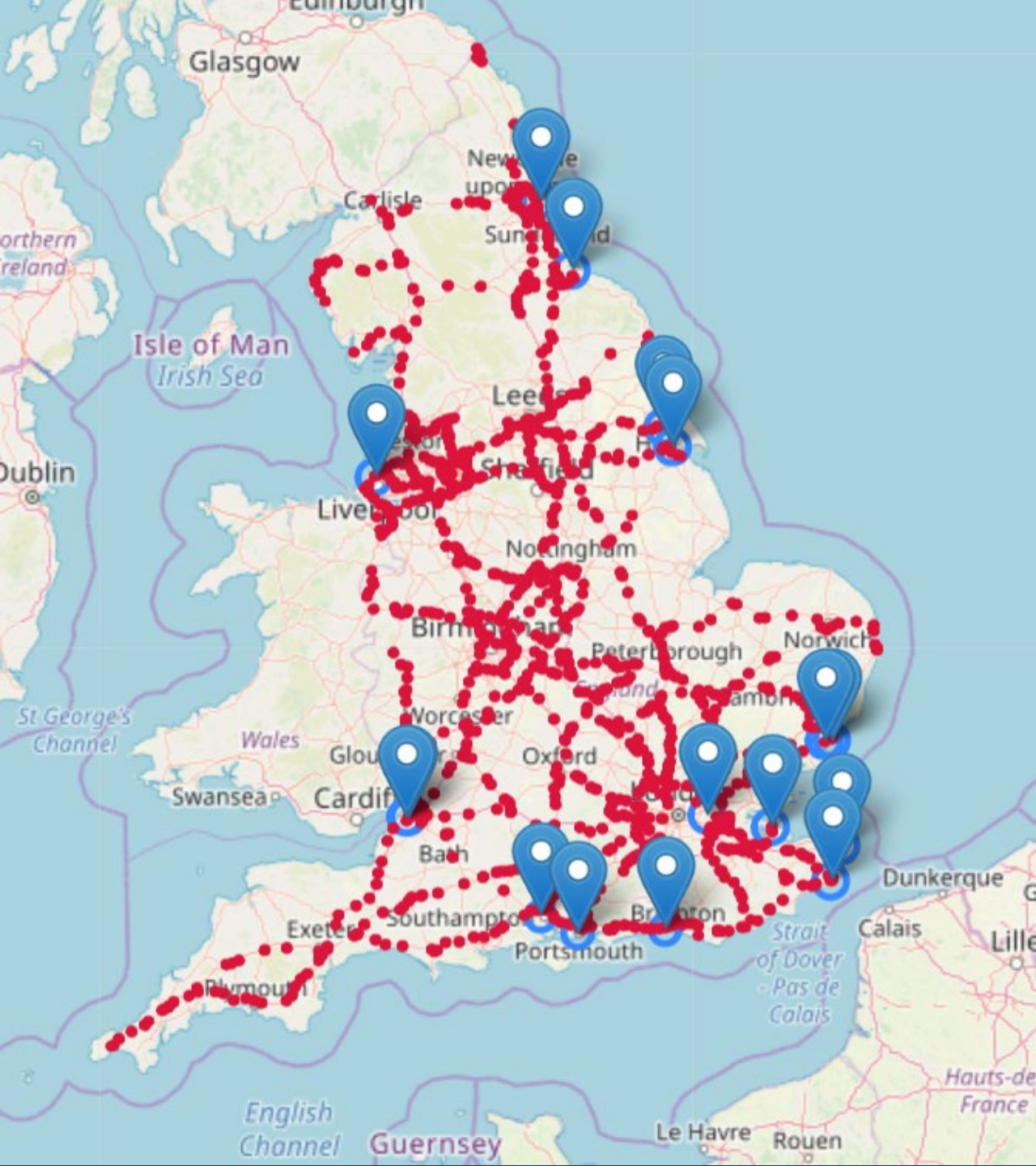


Business value added tax (VAT) returns

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

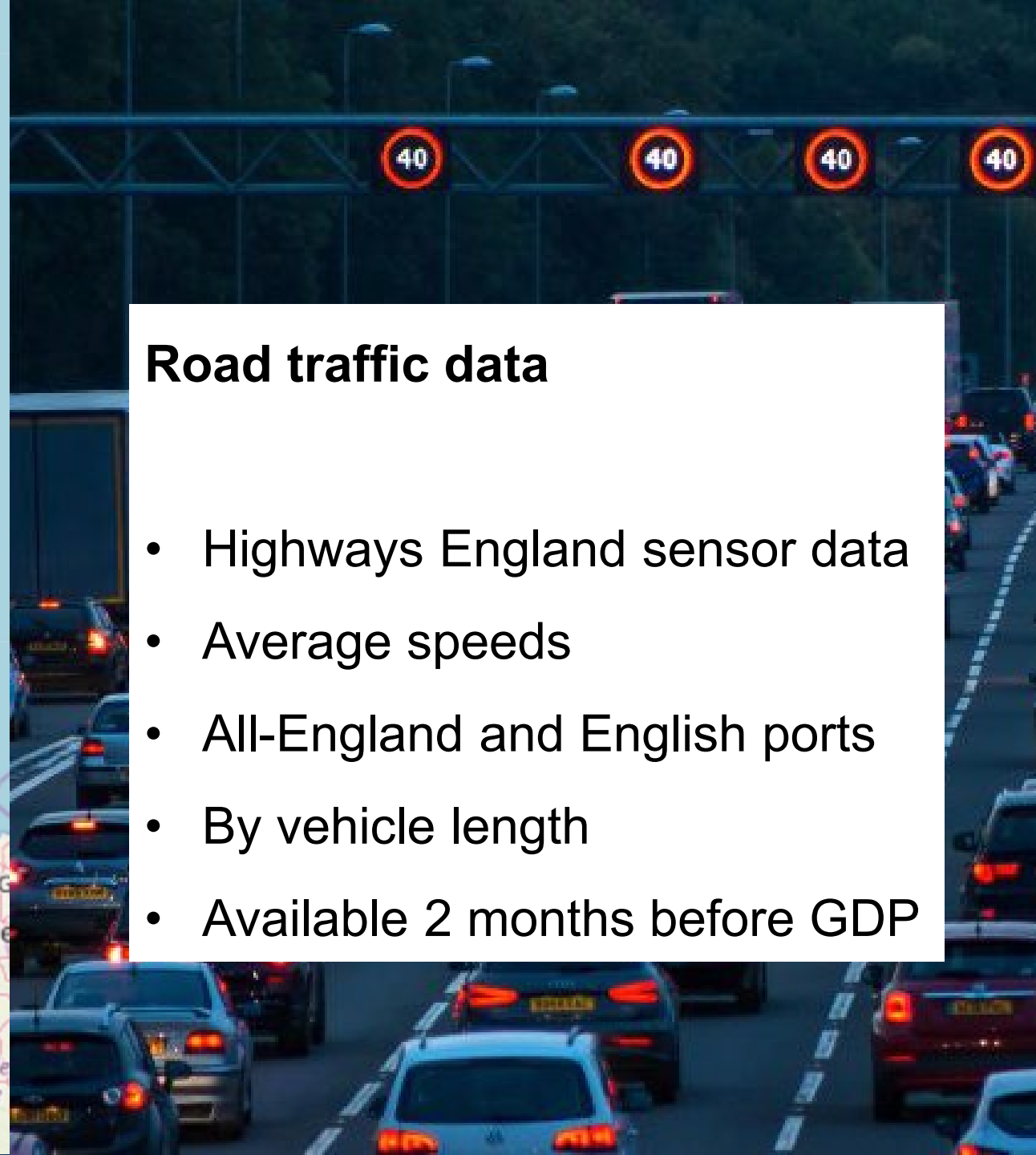


VAT due in this period on sales and other outputs	1
VAT due in this period on acquisitions from other EC Member States	2
Total VAT due (the sum of boxes 1 and 2)	3
VAT reclaimed in this period on purchases and other inputs (including acquisitions from the EC)	4
Net VAT to be paid to HMRC or reclaimed by you (Difference between boxes 3 and 4)	5
Total value of sales and all other outputs excluding any VAT. Include your box 8 figure	6
Total value of purchases and all other inputs excluding any VAT. Include your box 9 figure	7
Total value of all supplies of goods and related costs, excluding any VAT, to other EC Member States	8
Total value of all acquisitions of goods and related costs, excluding any VAT, from other EC Member States	9



Road traffic data

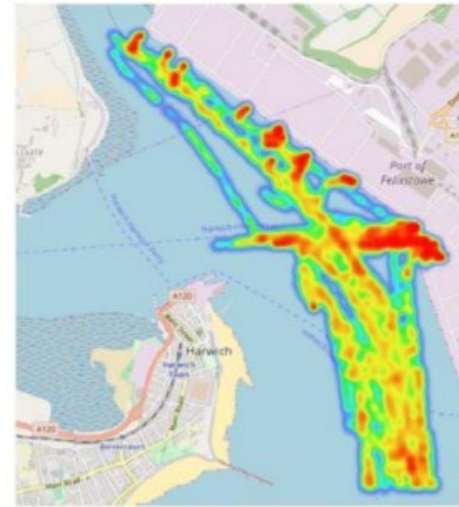
- Highways England sensor data
- Average speeds
- All-England and English ports
- By vehicle length
- Available 2 months before GDP



Shipping Automated Information System (AIS) data



- Marine and Coastguard Agency, ORBCOMM, Global Platform
- Ship tracking data
- Port traffic frequency
- Time in port
- Real time



Monday 12 December 2016



Monday 19 December 2016

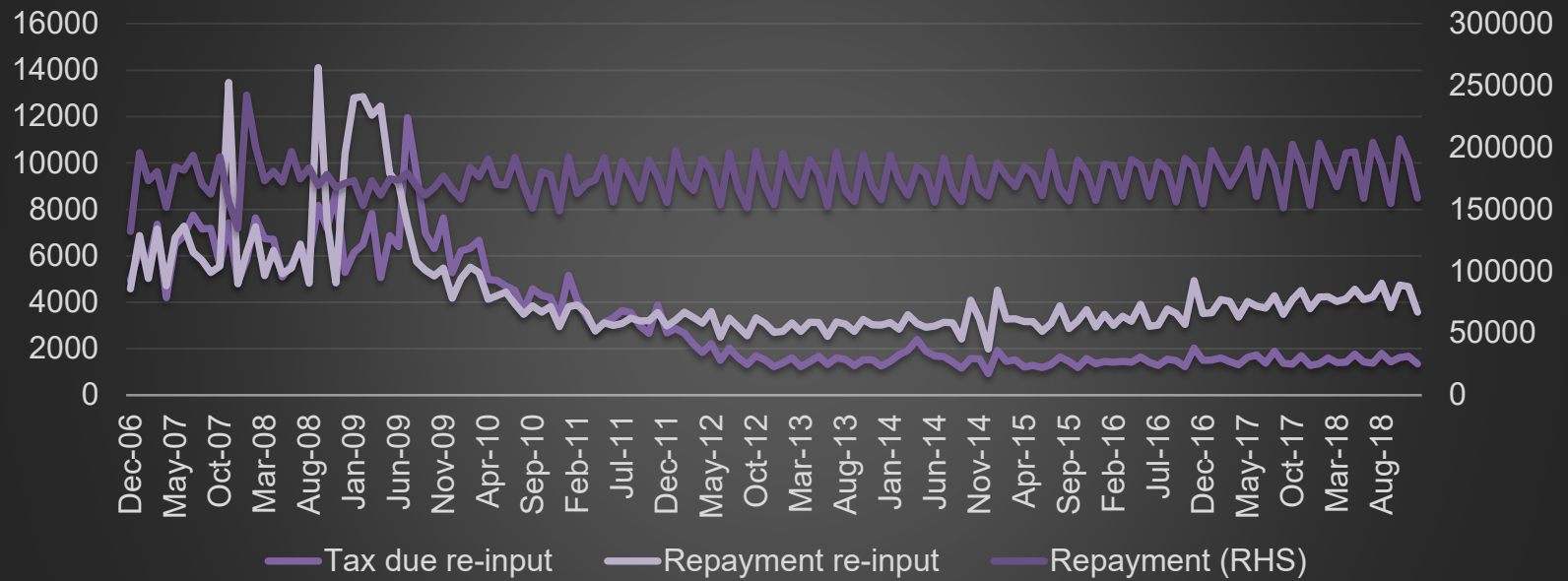
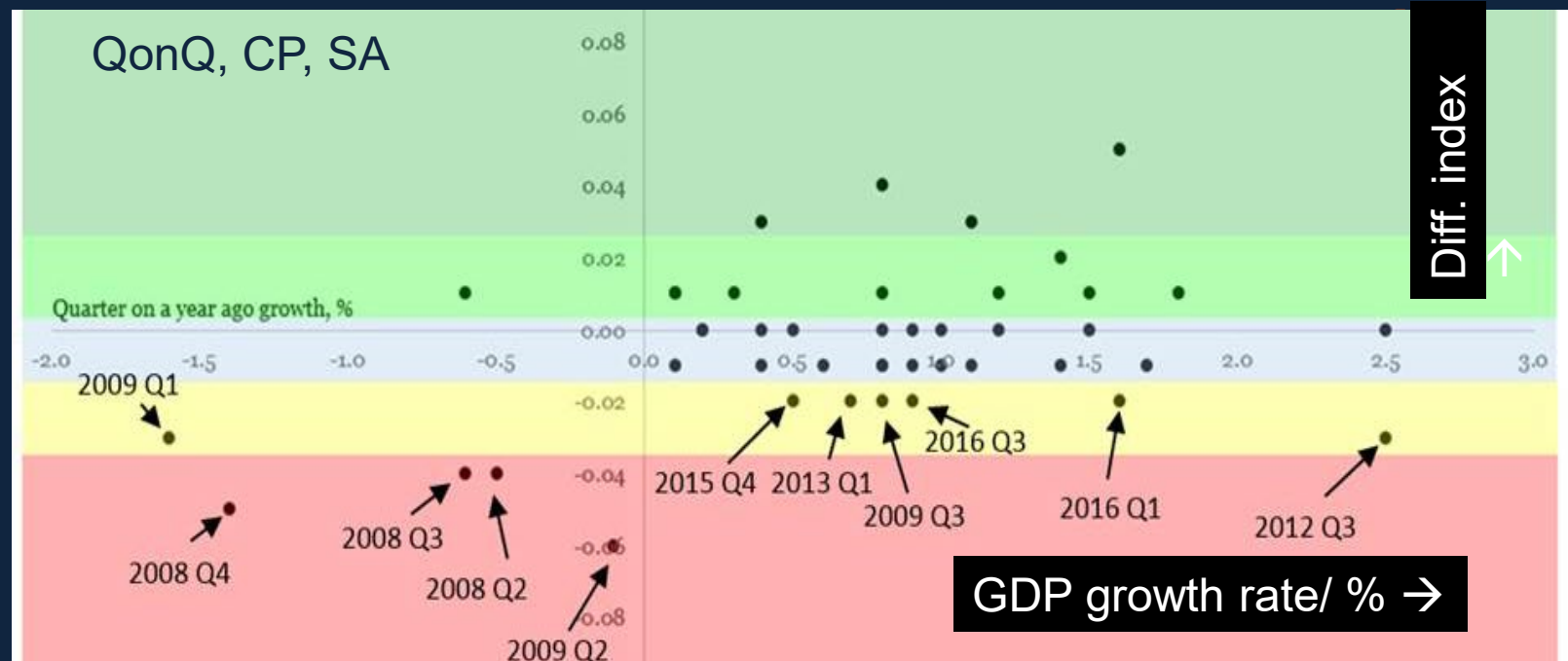


Sunday 25 December 2016



Sunday 1 January 2016

- 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!





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Economics

Faster Indicators for U.K. Point to Modest Decline in Turnover

By [Andrew Atkinson](#) and [Fergal O'Brien](#)
April 15, 2018, 10:28 AM GMT+1

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

DAVID SMITH



Today 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

Faster economic indicators from big data

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