

25 November 2009**Coverage**
United Kingdom**Theme**
The economy

Interpreting the quality of early estimates of Gross Domestic Product

Today ONS publishes a new article which discusses the ways in which GDP revisions arise and how the quality of the early GDP estimates can be assessed, as well as analysing the pattern of revisions over time. An executive summary of the article is attached.

ONS publishes its first estimate of GDP for the previous quarter 25 days into the next one, the most timely estimate produced for any developed economy. This estimate is necessarily based on partial information and ONS publishes updated ones, as more information becomes available. Both users and ONS therefore pay a lot of attention to the pattern and size of the revisions between these successive estimates.

The article finds that since the mid-1990s, revisions have been smaller than in previous periods, and with a virtual absence of bias.

Between the first estimate and that produced 2 years later, the average revision has been only +0.05 percentage points. There is some evidence that this reduced size of revisions, compared with previous periods, may partially reflect the relative stability of the economy over most of this time.

Revisions to GDP estimates are one of a number of issues that need to be considered, in the context of maintaining the quality of economic statistics. The recession has created a number of challenges, at various stages of the production process, that have needed to be addressed. ONS regards public discussion of these issues, the approach being taken to them and prioritisation of the available resources to address them, as important. The Office will therefore be hosting a seminar, early in the new year, to present the work that has been put in hand and to help this discussion take place.

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BACKGROUND NOTES

1. The full article is available on the ONS web site:
<http://www.statistics.gov.uk/cci/article.asp?ID=2315>
2. **National Statistics** are produced to high professional standards as set out in the Code of Practice for Official Statistics. They undergo regular quality assurance reviews to ensure that they meet customer needs. They are produced free from political interference. © Crown Copyright 2009.

Understanding the quality of early estimates of Gross Domestic Product – Executive Summary

This is a summary of an article ‘Understanding the quality of early estimates of Gross Domestic Product’ by *Brown, Buccellato Chamberlin, Dey-Chowdhury and Youll* which was published on the ONS website on 27 November 2009.

The Office for National Statistics early estimates of Gross Domestic Product (GDP) provide a timely indication of the evolution of the economic cycle. The article describes the context in which these estimates are produced, and examines the reason for their revision. It goes on to discuss how these revisions can best be analysed over different maturities of the estimates and points out some potential pitfalls. Based on this discussion, it offers guidance on the best approach to understanding the revisions cycle and for interpreting the published information on revisions. The article also presents the results of analysis of a new real time database for GDP growth in the UK and concludes by discussing the issues surrounding the use of bias adjustments for GDP. Broadly, the article concludes:

- revisions are driven by two basically distinct processes: routine revisions arising from the addition of new information, and one-off revisions reflecting largely methodological improvements resulting in part from changes to international standards of measurement
- conflating these two sources of revision can lead to erroneous conclusions about both the quality of the early estimates of GDP and the extent and direction of potential future revisions
- comparison of the preliminary estimates with those published around two years later provides a reasonable basis for making like-for-like comparisons, and is helpful in understanding the underlying revisions process
- while, in an ideal world, it would be helpful to be able to predict in advance the effects of future methodological improvements, in the real world, that is clearly not possible.

Using the new long run data base of revisions, which has now been made available, to analyse revisions to GDP over the last 50 years suggests that:

- revisions have more often than not been upward, but not always
- the pattern of revisions has changed over time. Broadly, there looks to be some correlation with the cycle but the relationship is far from exact
- since the mid-1990s, revisions have been smaller than in previous periods. Over maturities up to T+24, when most of the non-methodological changes will have been taken on board, the average revision is only +0.05 percentage points
- there is some suggestion that this better revisions performance may partly reflect that it is easier to measure the economy well, at an earlier time, when the economy is behaving relatively stably. The variance of GDP over this period was also lower than in previous times.

Although there is some evidence of historical upward bias in revisions, the article concludes that its extent and direction have not been stable or predictable. Further, any such bias appears to have been smaller since the mid-1990s, and insignificantly different from zero. Overall, revisions are not sufficiently large, regular or predictable to be able to support any procedure of incorporating bias adjustments into early estimates. ONS will, however, continue to monitor revision patterns closely, to check whether any change to this conclusion might be warranted in future. Such information on revisions will be made public quickly, continuing the current practice.