



Revisions Analysis for the National Accounts at ONS

Heather Robinson

Outline

- Revisions as a measure of quality
- Causes of revisions
- Revisions analysis available
- Key revisions analysis messages for GDP
- International Comparisons
- Communicating other quality information

What is quality?

- European Statistical System's dimensions of quality are used as a framework at the ONS:

Relevance	Accuracy	Timeliness
Accessibility	Comparability	Coherence

- An inevitable trade off between some dimensions
- Produce timely estimates based on short-term indicators
- More data based estimates available at later stages of the production process

Revisions as a measure of quality

- Revisions indicate the reliability of estimates
 - By assessing the closeness of early estimates to subsequently estimated values
- Do not directly indicate accuracy
 - ‘the closeness between an estimated result and the (unknown) true value’

Causes of revisions

- **New data**
 - Data replacing forecasts
 - Increased survey response rates (late returns)
 - Benchmarking of monthly/quarterly indicators to annual surveys
- **Balancing**
- **New methods**
 - Methodological improvements
 - New data source available
- **New national accounting standards**
 - ESA 95
 - Annual chain-linking
- **Error correction**
 - Rarely a source of significant revision

Use of revisions analysis - external

- To identify and understand any patterns in the data
- To allow more effective use of datasets
- To provide measures of data quality relating to reliability

Use of revisions analysis - internal

- To allow more effective use of datasets
- To feed into resource decisions
- For GDP - to inform compilation and balancing
- **NOT** to make quality adjustments relating to the revisions analysis results

Revisions analysis available

- Revisions triangles (real-time databases)
- Charts and tables
- Significance testing of mean revision
 - To determine if there is any systematic under or over-estimation in the data series
- Initial documentation of revisions according to source to enable further analysis

Communication of revisions analysis

- Revisions triangles available on website
- Tables of revisions in First Releases
- Summary statistics in First Releases
- Articles in Economic Trends
 - Addressing different time periods
 - Investigating revisions further
- Revisions webpage
 - http://www.statistics.gov.uk/about_ns/economic_revisions.asp

Revisions analysis for key aggregates

- Revisions analysis introduced as standard for key economic statistics aggregates
 - Analysis in First Releases from March 2004
- These include:
 - GDP
 - UK Trade
 - Labour Market
 - CPI
 - Public Sector Finances
- GDP as an example to demonstrate analysis

Revisions analysis of GDP - process

- Month 1 – 25 days after end of quarter (44% data)
- M2 – 55 days after end of quarter (67% data)
- M3 – 85 days after end of quarter (80% data)
- Annual Blue Book – June/September
 - incorporating annual data sources and Input-Output Supply and Use balancing in Blue Book year $t+2$

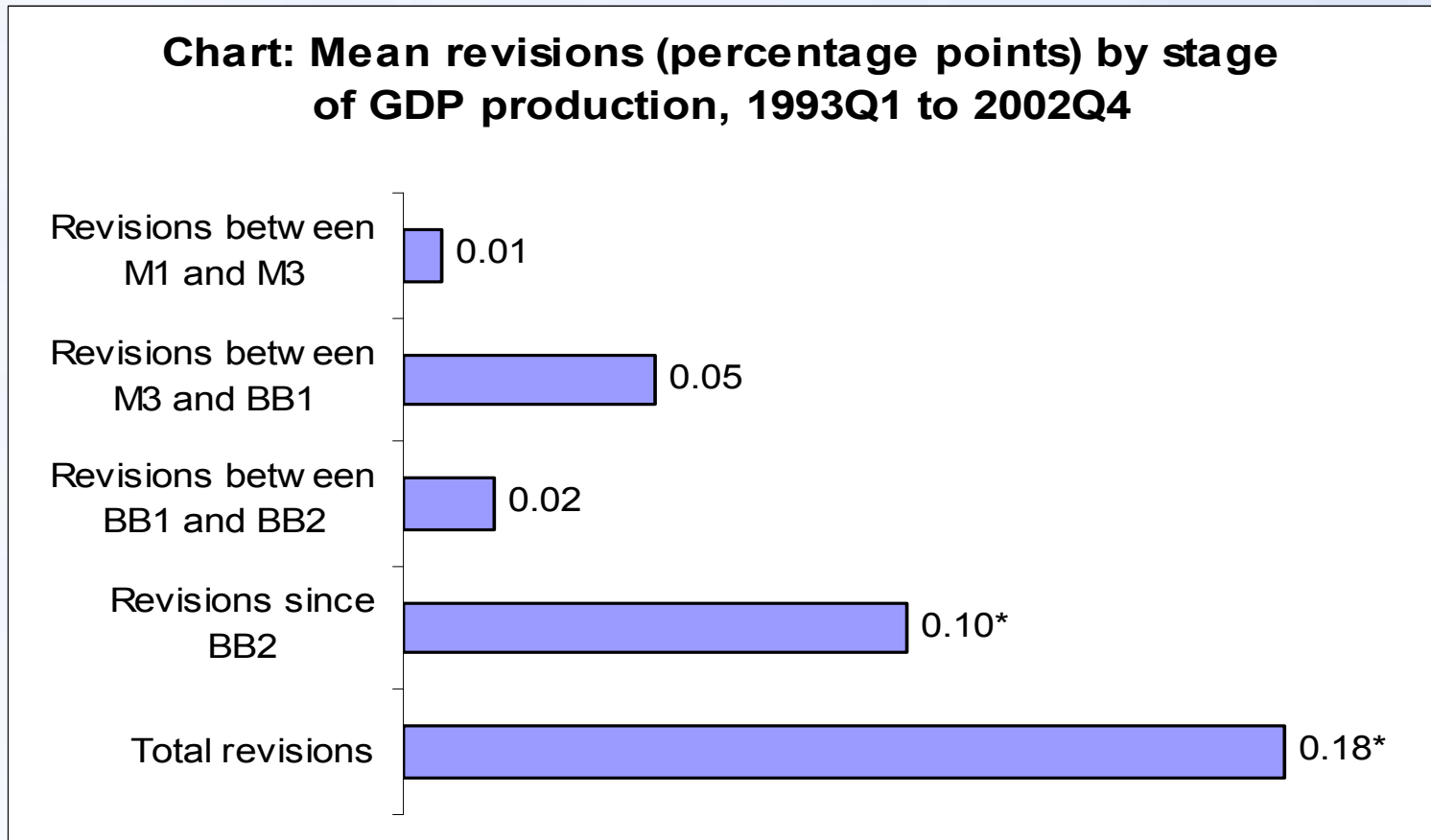
Revisions analysis of GDP in First Releases

	Mean revision	Mean abs revision
M1-M2	-0.03	0.06
M2-M3	0.04	0.06
M3-3 years later	0.12	0.20

- No mean revisions are statistically significantly different from zero
- M1-M2 and M2-M3 - new data and balancing
- M3-3 years later – new methods and Input Output Supply and Use balancing

Revisions analysis of GDP in articles

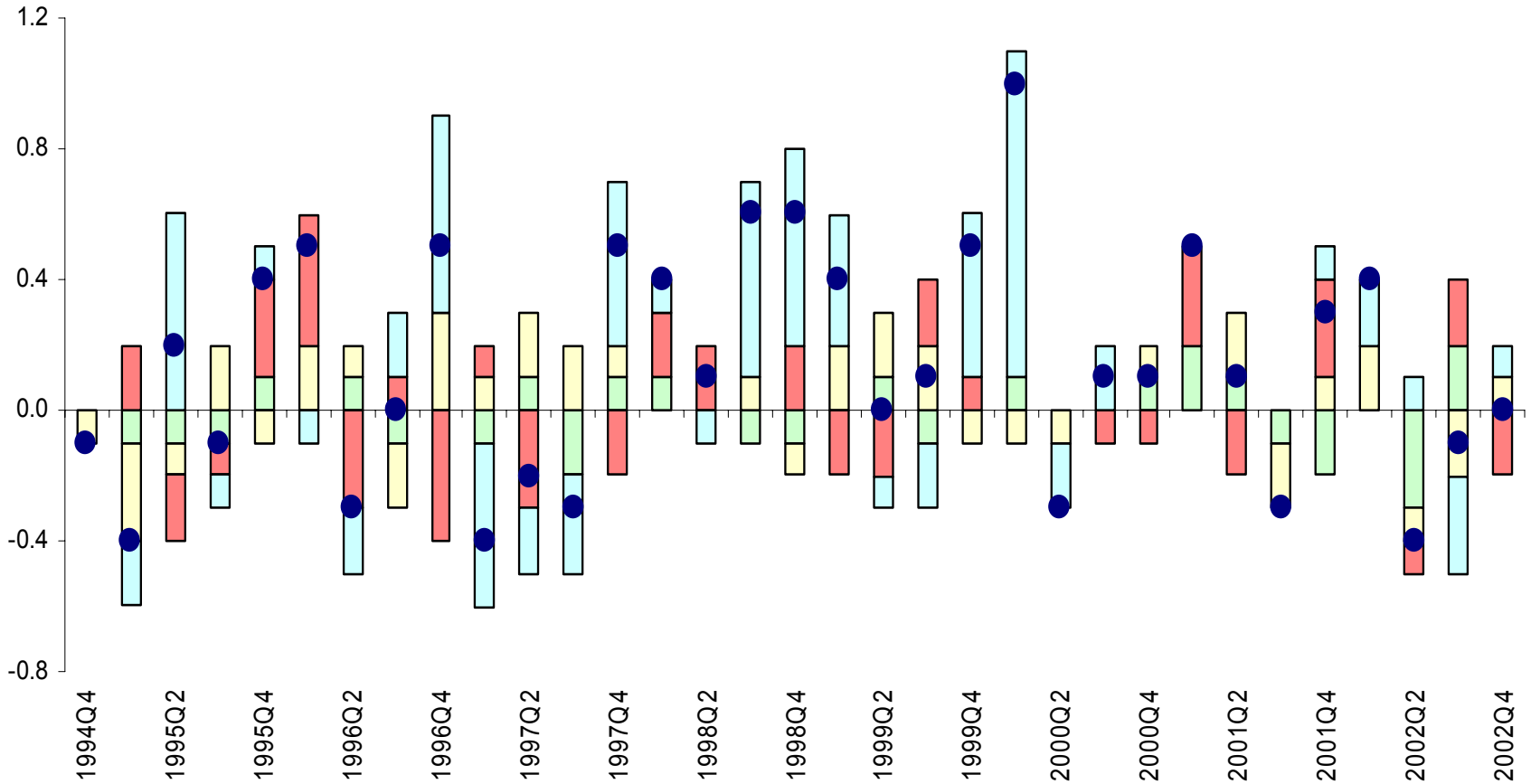
- Considers different time periods and stages in the process



Revisions analysis of GDP in article

Revisions by stage to quarterly GDP growth, 1994Q4 - 2002Q4

Revision M1- M3 Revision M3 - BB1 Revisions BB1 - BB2 Revisions since BB2 Total Revisions



International Comparisons

- OECD comparisons of revisions performance of quarterly GDP across range of countries
- UK revisions performance
- UK at the head of the field in publishing revisions information
- Contribute to discussion on international standards
 - Joint ONS-OECD Workshop on revisions analysis in October 2004

Communicating other quality information

- Quality Reports project
- Summary Quality Report
 - general, static qualitative information on website
 - a summary of quality structured around the six ESS dimensions of quality
 - a summary of methods used to compile the output
- Basic Quality Information
 - release-specific, usually quantitative information included in background notes and produced for every First Release

Quality Reports for Economic Statistics

- Quality Reports for GDP, Labour Market Statistics, BoP, Index of Services and CPI
- Economic Statistics Quality Information webpage:
 - http://www.statistics.gov.uk/about_ns/economicstatistics_qualityreports.asp
- Quality Reports for all key National Accounts outputs should be developed by October 2007

Close

- Any questions or comments?
- Email: heather.robinson@ons.gsi.gov.uk