

Benchmarking and revision experiences in the UK context

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Why do we revise GDP?

- Timeliness versus accuracy
- Increased data content as we move through the production process, and new methodologies
- No GDP number is ever truly final
 - Explainer: [Why GDP figures are revised](#)
- Increased focus in the UK on communicating uncertainty
 - [Recent podcast](#) (March 2024), [accessible blog \(December 2023\)](#), [upcoming panel session](#) at Economic Statistics conference (May 2024)

GDP estimates in the United Kingdom

- *Monthly estimate*: based on the output approach, is published around 40 days after the end of the reference month.
- *First Quarterly Estimate*: published around six weeks after the end of the reference quarter containing output, expenditure and income data.
- *Quarterly National Accounts*: published around 13 weeks after the end of the reference quarter and includes a full national accounts dataset with increased data content.
- *Annual Bluebook (coherent annual estimates)*: published usually in July or October each year. It is the point of annual reconciliation of data sources. The point of where we introduce change in a coordinated way, inc. benchmarks

UK quarterly GDP

- For the latest two quarterly periods, the expenditure and income approaches are aligned to output as our best measure due to higher data content. Before that an average of all three approaches is used.
- Revision periods are set by the national accounts revision policy a year in advance; generally, no more than 8 quarters are revised in the short run quarterly GDP estimate

First quarterly estimate

- Data content: output 80%, expenditure 60%, income 40%
- Published 40 days after the end of the reference quarter

Quarterly national accounts

- Data content: output 93%, expenditure 75%, income 85%
- Published 85 days after the end of the reference quarter

What changes occur between Quarterly National Accounts and our Annual National Accounts?

1. Updated data (e.g. annual surveys and benchmarks)
2. New methods introduced and improvement to data sources
3. Complete data (e.g. intermediate consumption)
4. Supply and use balancing in current prices and volume at the detailed 114 product and 114 industry level
5. Deflation by component and product rather than high level industry in the monthly and quarterly estimates

Taking on updated data

- Supply and Use balance at 114 product by 114 industries
- Annual production cycle, either July or October
- UK current practice is to take all changes and impacts back in a complete way (e.g. SUT balanced) to 1997, each year. Separate historical data linked back on.
- Revisions to level and growths are analysed and communicated for transparency

Communicating changes and revisions

Before the annual update:

- Published [National Accounts revisions policy](#)
- Highlight [particular challenges](#) in measurement

At the time of publication:

- Use of language in the release, reasons for revision
- [Revisions triangles](#) for totals and components
- [Real Time Databases](#) for totals and components

After the annual publication and release:

- Regular review of revisions in an [annual article](#).

Examples from 2023: Updates in UK data

Globalisation

- New methodology: focused on a small number of multi-national enterprises, aimed at better accounting for these globalisation impacts

Public sector finances

- Improving the alignment of the National Accounts and public sector finances publications
- Reflect latest classifications

Benchmarks

- Updating and replacing the use of fixed proportions for identified data
- Improving the classification of NPISH and measuring higher education sector
- improved methods for measuring non-UK government personnel spending within UK
- New data sources and methods for measuring rail passenger services

Deflator improvements

- Introducing new methods to account for changes in the quality of computer hardware
- Expanding the use of Services Producer Price Indices (SPPI) in National Accounts
- Introducing new weighting methods for market output deflators
- Introducing improved methods and data sources to estimate trade in services' travel deflators

Other method improvements

- Introducing new methods to measure the value of central government dwellings
- Introducing new data sources to improve the measurement of education-related travel exports
- Updating the estimation of businesses not covered by the Annual Business Survey (ABS) sample frame
- Reviewing and improving the treatment of own account software

+ Usual data updates, including replacing quarterly data with much richer annual data
+ Estimating 2021 through the SUT framework for the first time and improving 2020 estimates

Example: updates in our annual 2023 datasets

- 75 significant improvements to sources, methods, data production systems or workflow, or outputs.
- 99 minor adjustments and improvements, mostly quality and system changes for data production areas.

Note: Not every update introduced has the same scale of change or data impact, but these total number is a useful indicator of the volume of change introduced in a given year – 2023 was a larger year, but not unusually so.)

How do we introduce and manage change

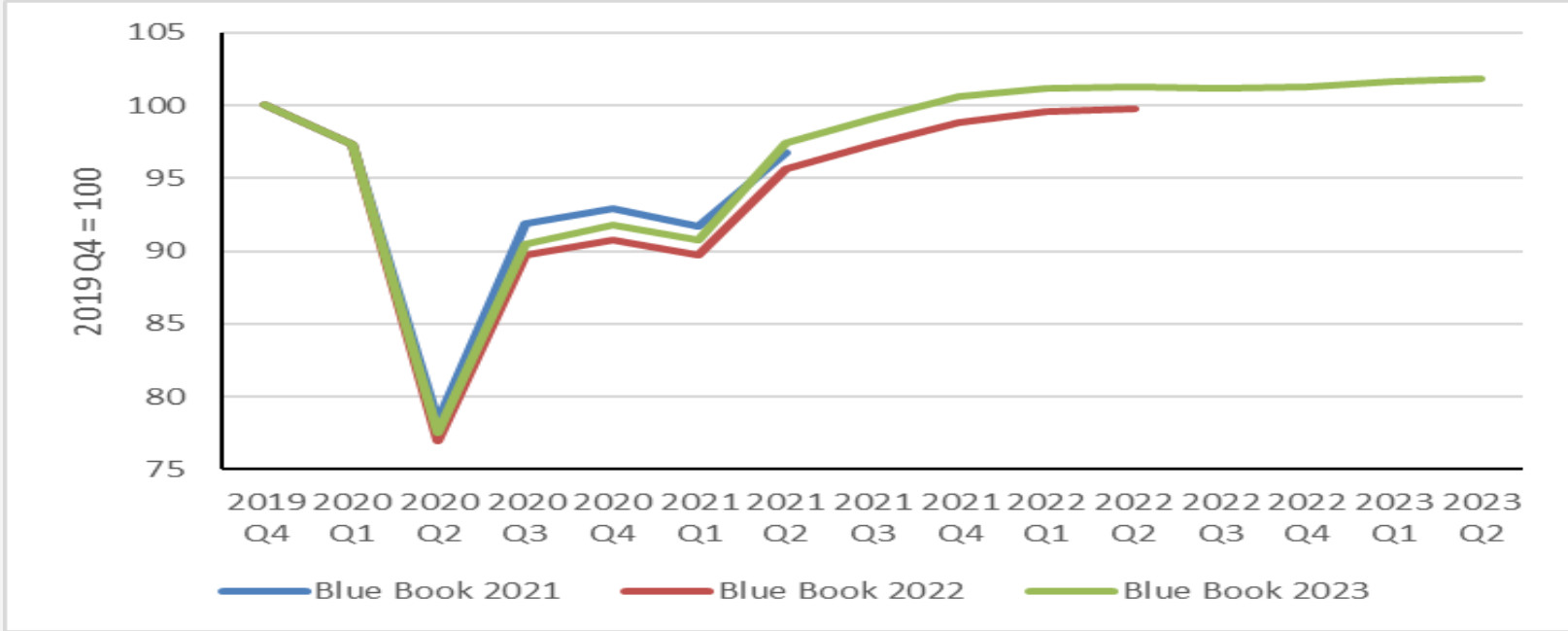
- Selected changes are cleared for introduction into the national accounts each year, and introduced through a structured and consistent change management process.
- Coordination across the organisation
- System and method changes are tested in isolation first to ensure that they're fit for purpose, then changes are gradually brought together to ensure that the changes all work sensibly and logically when run together.

How do we introduce and manage change

- This structured and consist testing process also provides a chance to check the expected impacts on output data for changes one at a time – this draft information makes isolating data impacts later in the process much easier.
- Once changes have cleared testing criteria, focused on proving that each change is impacting data as expected, they are introduced into our main dataset for balancing.

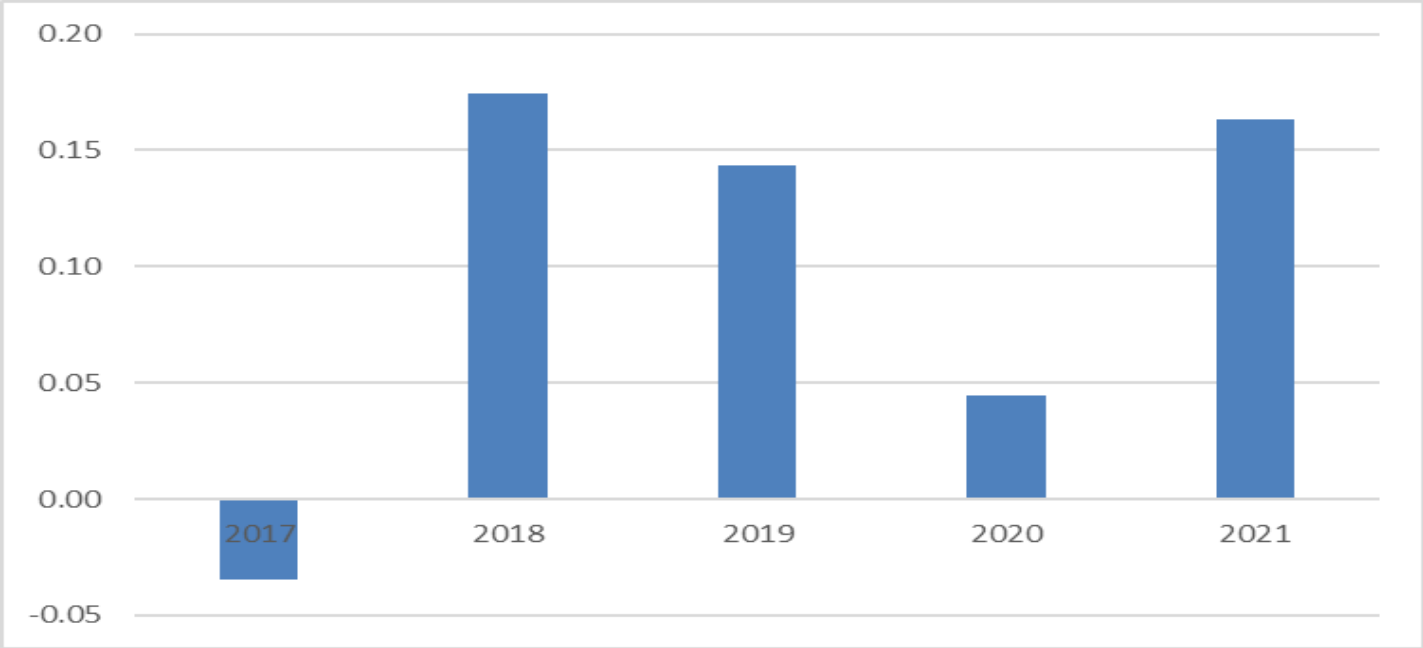
Case study: Revisions to 2020 and 2021 in UK

- 2020 and 2021 annual revisions were larger than normal, but this had been expected, and quarterly narrative relatively unchanged.



Case study: UK scale of revisions

- Revisions need to be put into context around the growth they are measured against,
- Total revision at 36 months as a proportion of the initial growth

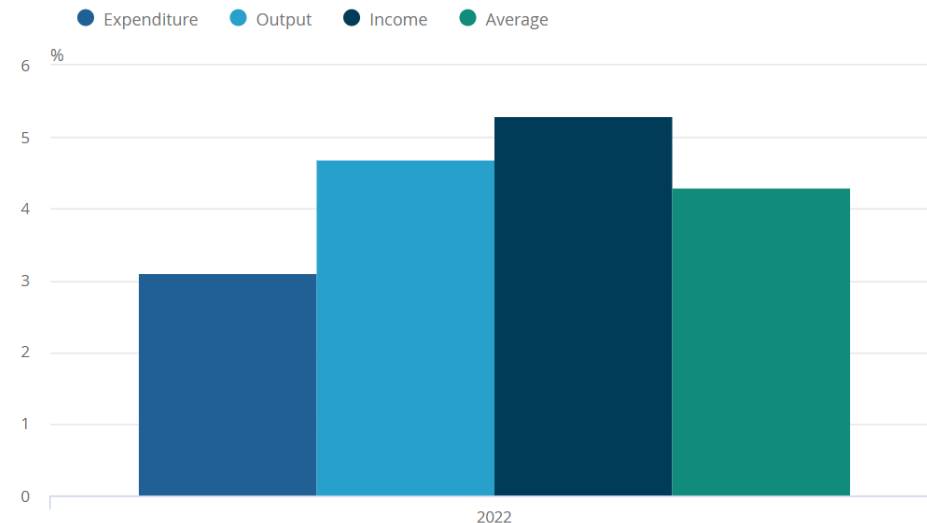


What has UK (ONS) done to communicate revisions since our annual estimates in 2023?

- [December 2023 quarterly national accounts](#) saw a step change in our reporting – from the language used, response rates and typical final response rates, future sources of revision, graphics showing the scale of difference in the 3 measures

Figure 2: Real GDP is estimated to have increased by 4.3% in 2022, unrevised from the first estimate

UK, three approaches to measuring GDP and average GDP growth, 2022



Summary

- Integration and alignment of data changes (e.g. benchmarks) and methods updates are important for consistency and coherence
 - Different frequencies of UK estimates (e.g. monthly, quarterly and annual)
- UK take through methods and data changes each year in a regular, managed change process back over time
 - Looking to see if we change this approach on how far back
- Communication on expected and actual revision impact

Thank you!

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