

Article

Review of historical gross fixed capital formation, current and upcoming work: February 2026

An update on a review into the gross fixed capital formation (GFCF) historical (pre-1997) time series following user feedback, including an overview of the work and next steps.

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Table of contents

1. [Overview](#)
2. [Our current position](#)
3. [Future developments](#)
4. [Provide feedback](#)
5. [Related links](#)
6. [Cite this article](#)

1 . Overview

Gross fixed capital formation (GFCF) is a core component of the [UK National Accounts](#) framework, providing an important measure of investment undertaken by businesses, government and households to expand and maintain the nation's stock of productive assets. It is the estimate of capital expenditure (acquisitions less the proceeds from disposals) on fixed assets by public and private sectors.

The historical (pre-1997) time series for GFCF is available as part of the [Business investment time series](#), which is published as part of our quarterly [Business investment in the UK bulletin](#).

Business investment headline and asset estimates are available from 1997 onwards. GFCF estimates, of which business investment is a subcomponent, have annual data from 1948 and quarterly data from 1955.

Headline-only business investment estimates are available from 1965 onwards but pre-1997 data are indicative-only because of limitations in the calculation methods. More information on these limitations can be found in our [Business investment headline data pre-1997](#).

Business investment estimates are published twice each quarter - [provisional business investment estimates](#) alongside the first quarterly estimate of gross domestic product (GDP), and [revised estimates of business investment](#) alongside the quarterly national accounts.

More detailed information on both GFCF and business investment can be found in our [Business investment in the UK quality and methods guide](#).

2 . Our current position

The pre-1997 gross fixed capital formation (GFCF) dataset was reviewed in 2014, ahead of the [2014 Blue Book](#), to:

- incorporate large structural changes brought by the [European System of Accounts - ESA10](#), including capitalising the costs of research and development (R&D) and weapons systems, and refining asset classifications
- implement the [Standard Industrial Classification \(SIC\) 2007](#) conversion in the historical period, which remained on a [SIC 2003](#) basis since [Blue Book 2010](#)
- remove any discontinuities between the historical GFCF series and the ESA10 post-1997 series

As part of this transformation, the Office for National Statistics (ONS) created a consistent back series for total GFCF stretching back to 1948 (annual series) and 1955 (quarterly series), using historical sources and reengineering past methods. This review also resulted in a reduction in the granularity of the data published in the [business investment time series](#); since Blue Book 2014, the ONS only publishes annual asset-level GFCF series back to 1987, while quarterly asset-level GFCF series are no longer published for the years before 1997.

The historical GFCF dataset that had been used to produce the 2010 capital stocks publication was used as the basis for this review. The 2014 historical GFCF series was created by implementing the SIC 2007 conversion on this dataset. The resulting series were then linked to the 1997-onwards series, as described in our [Methodological improvements and ESA 2010 changes to historic GDP datasets for Blue Book 2014 article](#) published on 23 February 2015. This linking process was carried out at an asset and industry level.

Historical estimates of GFCF present several longstanding complexities arising from changes in data sources, concepts and methods over time. Earlier periods rely on limited administrative and survey information that was not collected using modern national accounts definitions, requiring the use of proxies, splicing techniques and retrospective adjustments to create continuous series. Subsequent revisions to the asset boundary, industry classifications and deflators introduce further breaks that complicate comparison across decades.

As with the creation of any back series, these challenges mean that historical (pre-1997) GFCF carries greater uncertainty than contemporary estimates, particularly for periods before the establishment of the national accounts framework. We recognised the uncertainty surrounding the historical GFCF series in our [Impact of the methodological changes to the estimation of capital stocks and consumption of fixed capital article](#) published on 2 July 2014, where it stated the following:

"It should be noted that the linking of the historic estimates to the 1997-onwards series is uncertain. It is not possible to test how well the linking factor accounts for methods changes, as no information on the real impact is available. This means that the historic GFCF estimates are inherently more uncertain than the 1997-onwards estimates."

Stakeholder and user feedback

We have received user feedback on the construction, consistency and interpretation of the historical (pre-1997) GFCF series. This feedback has focused on the following areas.

Baseline position

Concerns have been raised about the data source that was used as a baseline position to update the historical GFCF estimates. The baseline position used for the 2014 update was the historical GFCF dataset that had been used to produce the 2010 capital stocks publication. Users have raised the concern that this dataset was not fully aligned with the equivalent Blue Book 2010 publication and that these differences in the baseline position would have had an impact on the Blue Book 2014-published estimates.

Implementation of new methods and classifications

It has been noted that the 2014 review required bringing together historical and post-1997 data produced under different industrial classification systems and institutional sector treatments. The conversion of the GFCF data to a SIC 2007 basis involved the use of conversion factors based on turnover, rather than investment, raising questions about the effects of the conversion on the levels and asset composition by industry. Furthermore, implementing modern asset definitions, such as those relating to intangible assets, in the historical period can be complex because of the absence of surveys that could have collected this data on the same conceptual basis.

Processing errors

Commentary has highlighted uncertainty around the reconstruction of early period current price investment, which required reflation of historical constant price series using deflators derived from earlier vintages. Users have raised concerns that computational errors may have been made in the mapping of the deflators to the constant-price series. More generally, users have noted the risk that processing errors may have been made in other steps of the process. For instance, it has been noted that the downward revision to total GFCF before 1960 could be the result of a data omission.

The splicing method

Concerns have been raised about the use of splicing to link historical and modern investment series at a single year, and about the application of this method at detailed industry-asset level before aggregating to totals. Where large differences existed between old and new series, this approach has been suggested to have the potential to introduce time-varying effects in aggregate investment that reflect methodological choices rather than underlying economic developments.

Stakeholder feedback has highlighted that the historical (pre-1997) GFCF series carries uncertainties large enough to limit its usefulness for long run analysis, and a suggestion that any workplan should prioritise improving methodological consistency, transparency, and the robustness of early period reconstructions to strengthen the evidence base.

Approach

To date, relative priorities and the allocation of resources to ensure we meet our legal obligations, as well as ensuring we have implemented methods and systems improvements as part of the national accounts cycle, has constrained our ability to undertake a review to fully explore the feedback received.

In 2025, we allocated dedicated resource to undertake a comprehensive systematic review and updated the guidance to users on the uncertainty of the historical (pre-1997) series.

Our initial investigations focused on examining the method used to link the SIC-converted historical series to 1997-onwards data. Following this, we widened our investigation to cover the process used to compile the historical series, which included a review of the data sources used, the SIC conversion process, and reflation and deflation steps taken during the compilation process.

Both current price and deflator measures, which are used to create chained volume measures (CVM), have been subject to this review. The review has been individually conducted for each of the assets included in the historical GFCF series, and we have taken into consideration different vintages of Blue Books, which have incorporated methodological and classification changes.

As of early 2026, the findings from our investigations are being reviewed by our established internal national accounts processes, which review and provide advice and assurance on methods and quality within the production of the national accounts, through peer review.

3 . Future developments

Following conclusion of an internal review in early 2026, we will take the opportunity to discuss further the outcome of the review process with a group of external experts, who have provided valuable feedback and expert insight on the historical (pre-1997) gross fixed capital formation (GFCF) series to date. The Office for National Statistics (ONS) regularly draws on this expertise for quality assurance purposes and will put us in a position of determining next steps.

The national accounts internal assurance process is standard practice for approving any changes to be implemented through the national accounts and this would be done at the earliest opportunity available. [Proposed changes to be implemented in Blue Book and Pink Book](#) are summarised each year and any changes as an outcome of this work will be notified within that process.

We continue to advise users to treat the historical GFCF estimates as under review and as being subject to more uncertainty than the 1997-onwards estimates. This advice will remain in place until the investigations have been completed and any outcomes from the review have been implemented.

4 . Provide feedback

This content will be reviewed in late spring or early summer 2026.

If you have any feedback or suggestions on the review we are conducting for the historical (pre-1997) GFCF time series, please contact us at gcf@ons.gov.uk

5 . Related links

[Business investment time series](#)

Dataset | Released 22 December 2025

Detailed breakdown of business investment by industry and asset, in current prices, chained volume measures, non-seasonally adjusted and seasonally adjusted.

[Proposed changes to be implemented in Blue Book and Pink Book](#)

Forthcoming article | Released 24 March 2026

Planned scope and content of the UK National Accounts, the Blue Book and UK Balance of Payments, the Pink Book, 2026, editions.

6 . Cite this article

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