

Article

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

An update on a review into the historical (pre-1997) gross fixed capital formation (GFCF) time series, including our current understanding of issues affecting the pre-1997 data and next steps.

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1 . Overview

Gross fixed capital formation (GFCF) is a core component of the [UK National Accounts framework](#). It provides an important measure of investment undertaken by businesses, government and households to expand and maintain the country'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](#).

The pre-1997 GFCF dataset was reviewed in 2014, ahead of the release of our [United Kingdom National Accounts, The Blue Book: 2014 Edition](#). In this review, we:

- incorporated 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
- implemented the [Standard Industry Classification \(SIC\) 2007](#) conversion in the historical period, which remained on a [SIC 2003](#) basis since [Blue Book 2010](#)
- removed any discontinuities between the historical GFCF series and the ESA10 post-1997 series

As we outlined in our [Review of historical gross fixed capital formation, current and upcoming work: February 2026 article](#), historical (pre-1997) GFCF estimates are inherently more uncertain than contemporary estimates. This is because they were compiled using a range of historical sources, proxies, retrospective adjustments, and linking methods to create a continuous series over a long time period. We also noted that users should treat the historical estimates as "under review".

Since then, our work has continued to investigate the historical series, and we have consulted with users on its construction.

This article provides an update on the issues identified so far, what can and cannot be concluded at this stage, and the implications for those using these data in research, analysis and decision-making. In line with our ongoing review, this article does not present final conclusions on all aspects of the work, as our research is continuing.

2 . Our current understanding

Provisional findings

Based on the work we completed so far in this ongoing review of the historical gross fixed capital formation (GFCF) dataset, we have identified issues that fall into four broad categories.

Baseline inconsistencies

The baseline position used in 2014, as defined in our [February 2026 update article](#), was not fully aligned with the equivalent Blue Book 2010 estimates.

Earlier vintages of perpetual inventory model (PIM) GFCF inputs (such as those from 2008 and 2009) appear to align more closely with the Blue Book 2010 GFCF estimates than the 2010 PIM GFCF inputs used as a baseline in the Blue Book 2014 historical review, as explained in [Section 1. Overview](#).

This means that some differences in the published historical (pre-1997) GFCF estimates may have been present before the 2014 linking process was applied, as defined in Section 2: Our current position of our [February 2026 update article](#).

Data omissions and gaps

Some components were inadvertently missing from the data feeding into the historical (pre-1997) GFCF series. These mainly affected the dwellings asset, in which we found evidence that the Housing Revenue Account time series and some post-World War 2 central government investment in dwellings are missing from our current, pre-1997 published historical estimates.

Issues in Standard Industry Classification conversion and industry allocation

These include some cases of double counting, misallocation from Standard Industry Classification (SIC) 2003 to SIC 2007 industries, and the suppression of some historical industry series. These issues affected industries within the buildings and structures, transport equipment, other machinery and equipment, and artistic originals assets.

Deflator and volume measurement issues

In our February 2026 update article, we stated that users had raised concerns that computational errors may have been made in the mapping of the deflators to the constant-price series. However, provisional findings indicate that this was not the case and that the reflation of the constant-price series was carried out correctly.

In contrast, we found issues in some of the deflators later used for chain-linking the revised pre-1997 current price series, such as incorrect calculation of some weights. These issues mean that some historical chained volume measures may not provide a robust guide to economic developments over time.

Effects on levels, growth rates and wider aggregates

Overall, the issues identified are large enough to affect interpretations of the published historical (pre-1997) GFCF series.

We have discussed our provisional analysis with external experts as part of our quality assurance process. We have found that downward revisions to total GFCF in the earlier years of the series (most significant in the period from 1948 to 1959) were mainly caused by revisions to the dwellings, other machinery and equipment, and transport equipment assets.

However, at this stage, these findings remain part of our ongoing review. They improve our understanding of the nature and scale of the issues, but they should not yet be interpreted as the final outcome of the review.

3 . Areas of uncertainty and implications for use

The aim of this update is to provide users with a clearer picture of what can be said with confidence at this stage and where uncertainty remains. We recognise that our users and experts' concerns are about both the estimates themselves and the need for clear communication on their interpretation and use.

Periods where particular caution is needed

Users should exercise caution when using the pre-1997 historical gross fixed capital formation (GFCF) estimates, especially for the earlier years of the series. Our investigations so far indicate that the period from 1948 to the late 1950s, as well as the first half of the 1970s, are among the most affected. This includes missing source data and issues in the construction of the series.

Assets and components where caution is especially important

The issues identified so far suggest that users should take particular care when using historical GFCF estimates for dwellings, other machinery and equipment, and transport equipment. This is because these were prominent in the provisional findings on the scale of revisions to the earlier years of the series.

What we can already say

At this stage in our investigations, we can say that:

- there is sufficient evidence to conclude that parts of the published historical (pre-1997) GFCF series are affected by quality issues
- those issues arise from more than one source, including baseline inconsistencies, data omissions, SIC conversion issues, and deflator construction issues
- the impacts are not confined to a single asset

What we cannot yet say

There are important limits to what we can say until we complete additional investigations. At this stage we are not yet able to:

- publish a complete set of revised historical (pre-1997) GFCF estimates
- quantify with precision the final impact across all time periods, industries and assets
- confirm any possible effects these issues may have had on other historical (pre-1997) National Accounts aggregates
- confirm the final implementation route or timing for corrective changes
- conclude whether a single methodological solution will be appropriate across all components of the historical series

Implications for users

For users undertaking long-run analyses, the current evidence indicates that the published historical (pre-1997) GFCF series should be used with caution, particularly where analysis depends on detailed early-period movements, asset-level composition, or interpretation of long-term trends in investment. This is especially relevant where the historical data are used to draw conclusions about specific episodes in post-war economic history.

We recognise the value of making historical series available, even where uncertainty is higher than for contemporary estimates. Therefore, our aim is to investigate the issues thoroughly and improve transparency about current limitations, so that users can make informed decisions about their appropriate use.

If users need historical (pre-1997) GFCF information, the historical GFCF time series published alongside the [Blue Book 2010 data](#) can be used as the latest position before [Blue Book 2014](#).

Please note that these estimates do not incorporate any methodological changes made after Blue Book 2010, such as the capitalisation of Research and Development, and weapons systems introduced in Blue Book 2014 as a result of ESA10. This means there may be a step change between the years 1996 and 1997 when comparing the Blue Book 2010 pre-1997 GFCF time series with our current, post-1997 GFCF time series.

4 . Ongoing work and next steps

When we conclude the review stage, we will move into building an appropriate solution, which may result in revisions to the top-level historical (pre-1997) gross fixed capital formation (GFCF) series.

This review remains subject to our internal National Accounts assurance processes. This is standard practice for approving any changes to be implemented through the National Accounts, and this would be done at the earliest opportunity available.

Our yearly [Proposed changes to be implemented in Blue Book and Pink Book article](#) summarises changes to National Accounts, and the outcome of this work will be reflected in that process.

We have also discussed provisional findings with external experts, as part of our wider quality assurance approach. Feedback from those discussions has reinforced the importance of providing users with transparent documentation on the strengths and limitations of our published historical time series.

As this work develops, we will continue to prioritise transparency. That includes being clear about the limitations of the current historical (pre-1997) estimates, the evidence emerging from the review, and the distinction between provisional findings and final implemented changes.

Research is ongoing, and users should continue to regard the historical (pre-1997) gross fixed capital formation (GFCF) series as "under review" until that work is complete. We are engaging with the Office for Statistics Regulation regarding ongoing investigations and the communication of their implications for users.

5 . Provide feedback

This content will be reviewed by the end of 2026.

If you have any feedback or suggestions on our review of the historical (pre-1997) gross fixed capital formation (GFCF) series, please contact us at gcf@ons.gov.uk.

Continued feedback from users and experts remains important to this work.

6 . Related links

[Business investment time series](#)

Dataset | Released 30 June 2026

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: 2026](#)

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.

[Review of historical gross fixed capital formation, current and upcoming work: February 2026](#)

Article | Released 4 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.

7 . Cite this article

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