

Article

Detailed assessment of changes to institutional sector accounts: 1997 to 2021

An indicative impact of changes to the main non-financial and financial accounts estimates being introduced when revised figures for the UK National Accounts are published on 29 September 2023.

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1 . Overview

The 2023 Annual National Accounts, also known as Blue Book 2023, will incorporate a wide range of improvements to sources and methods.

In our [Impact of Blue Book 2023 changes on gross domestic product methodology article](#), we showed the impact of methodological and data improvements on the current price and the chain volume measure of quarterly gross domestic product (GDP), 1997 to 2021.

This article will cover the indicative annual impacts on the institutional sector accounts (SFA) because of changes to both GDP and SFA sources and methods, as well as confronting the year 2021 through the supply and use tables (SUTs) framework for the first time.

Data revisions presented in this article are in current prices and, therefore, do not reflect the annual revisions to the headline volume GDP or the GDP implied deflator presented in our [Impact of Blue Book 2023 changes on gross domestic product article](#), published 1 September 2023. As a result, volume estimate revisions to retail trade, wholesale trade, human health and social work activities gross value added are not reflected in the headline revisions to institutional sector accounts. Instead, revisions discussed are consistent with impacts presented in the 1 September 2023 article's section on "[Annual revisions to average current price gross domestic product \(GDP\)](#)".

2 . Main points

- Across all the institutional sectors, revisions from 1997 to 2019 are generally small; however, there are larger revisions to 2020 and 2021.
- Between 1997 and 2019, there have been minimal revisions to the UK's annual net lending or borrowing position as a percentage of gross domestic product (GDP).
- In 2020, the UK's estimated annual net borrowing position with the rest of the world as a percentage of GDP has been revised by 0.3 percentage points to 3.0%; previously, this was estimated as 3.3%.
- In 2021, the UK's estimated annual net borrowing position with the rest of the world as a percentage of GDP has been revised by 1.0 percentage point to 0.6% as a percentage of GDP; previously, this was estimated as 1.6%.
- Between 1997 and 2019, The annual household saving ratio has been revised by an average of positive 0.1 percentage points.
- In 2020, the annual household saving ratio has been revised upwards by 0.7 percentage points from 15.9% to 16.6% as result of household expenditure being revised down by £12.7 billion.
- In 2021, the annual household saving ratio has been revised downwards by 0.2 percentage points from 12.4% to 12.2% as a result of pension and non-pension income being revised downwards.

3 . Methodology improvements affecting institutional sector accounts

This section discusses the main methodological improvements undertaken in Blue Book 2023 that affect the non-financial and financial accounts.

We explained substantial changes in our [Impact of Blue Book 2023 changes on current price and volume estimates of gross domestic product methodological article](#), published on 3 July 2023. These changes included:

- globalisation changes
- public sector finances
- benchmarks and associated projects
- deflator improvements

Further data improvements affecting non-financial and financial accounts are described in this section.

Public sector finances

In Blue Book 2023, public sector finances (PSF) includes the effects of reclassification of several bodies from public corporations into central government.

As part of our aim to improve the alignment of the National Accounts and public sector finances publication, Blue Book 2023 will include the effects of reclassifying several bodies from public corporations sector into central government. Blue Book 2023 will also reflect the reclassification of certain central government property leases from operating to financial leases, following a review of the impact of the implementation of International Financial Reporting Standard 16 (IFRS16). For further information about the recording of central government leases, see our [Recent and upcoming changes to public sector finance statistics article](#).

A set of public sector volume changes, which includes the introduction of new methods and data sources to estimate the volume output for non-market adult social care, will also be implemented.

For further information, see our [Improvements to non-market adult social care output in the National Accounts methodology](#).

The sectors affected by this methodological improvement are:

- private non-financial corporations
- households
- central government
- financial corporations

Redundancies benchmark

Blue Book 2023 replaces the use of fixed proportions in calculating redundancies and severance payments for multiple industries. The previous method used the Annual Business Survey (ABS) for most industries; however, a number of industries, primarily the government and financial industries, used fixed values and proportions instead. The new method continues to use the ABS for most industries but has replaced previous fixed values with annual data sources, including the whole of government accounts and data from the Bank of England. This improves our estimate of redundancy payments paid out by sectors not covered on the ABS.

The sectors affected by this change are:

- households
- financial corporations
- private non-financial corporations

Trade in services education-related travel exports

Education-related travel exports include the tuition fees of the course attended in the UK by a non-resident, plus other expenses incurred while they were in the UK.

Blue Book 2023 will introduce new data sources to improve the measurement of education-related travel exports, these include:

- wider use of administrative data sources
- for tuition fee estimates to cover schools
- further education
- English-language training

Improvements include the use of administrative data to estimate other non-tuition expenditure of students in the UK as opposed to the previously used International Passenger Survey (IPS) data.

The sectors affected by this methodological improvement are:

- households
- private non-financial corporations

Improvement to monetary financial institutions' measurement of output

Monetary financial institutions' measurement of output has been improved by using administrative data sources to move from a factor cost valuation to basic prices. This has been done by ensuring initial estimates are at factor cost, for instance, all taxes and subsidies are removed. Then we add only taxes without subsidies on production to our output measure, ensuring it is recorded at basic prices, which in turn is used to calculate gross value added.

The sectors affected by this methodological improvement are:

- private non-financial corporations
- financial corporations

The Inter-Departmental Business Register (IDBR) coverage adjustment

The IDBR coverage adjustment is an uplift applied to turnover and purchases data derived from the ABS. Therefore, it affects the calculation of both market output (P11) and intermediate consumption (P2). It is an exhaustiveness adjustment to ensure business units not included on the IDBR are covered. The IDBR provides the population (universe) and sampling frame for the ABS. Therefore, ABS-based estimates do not capture activity of these missing units.

The missing units are businesses without employees not registered for Pay As You Earn (PAYE) and not registered for Value Added Tax (VAT). Proportions used to calculate the uplift were previously derived using self-assessment data from HM Revenue and Customs (HMRC) that are no longer available. New source data for 2015 onwards have now been provided by the Department for Business, Energy and Industrial Strategy (BEIS) as part of their [Business population estimates](#).

BEIS provide estimates of the proportion of annual turnover generated by unregistered businesses (VAT or PAYE) in the UK, broken down by industry. In a small number of cases, proportions used in earlier periods based on HMRC data have been revised to bring them in line with the new data.

The sectors affected by this methodological improvement are:

- private non-financial corporations
- households
- rest of the world

Impacts of other changes and updated data sources

A more complete list of changes that will affect the institutional sector accounts were described in our [Impact of Blue Book 2023 changes on current price and volume estimates of gross domestic product methodology article](#).

Selected updated data sources for later periods covered by Blue Book 2023 can also be found in [8. Data sources and quality](#).

4 . Indicative impact on the institutional sector accounts

This section sets out the estimates for the average indicative impact between 1997 and 2021 of all improvements introduced in Blue Book 2023 for selected institutional sectors.

Impact on UK net lending and borrowing

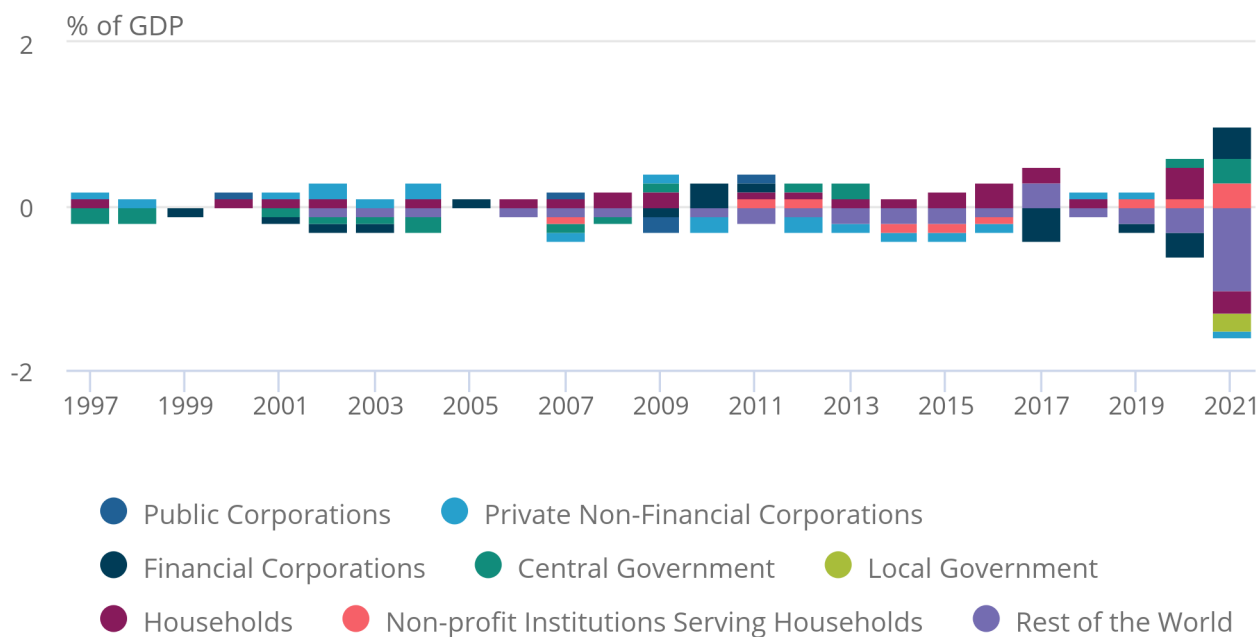
Figure 1 shows the impact on the sector's net lending and borrowing as a percentage of gross domestic product (GDP). Revisions to the household sectors and the rest of world sectors show the largest change, averaging revisions of positive 0.1% and negative 0.1% respectively between 1997 and 2021.

Figure 1: The largest average revisions to net lending and borrowing positions as a percentage of GDP were seen in households and rest of the world sectors

UK, 1997 to 2021

Figure 1: The largest average revisions to net lending and borrowing positions as a percentage of GDP were seen in households and rest of the world sectors

UK, 1997 to 2021



Source: Office for National Statistics

Table 1 sets out the indicative nominal average impact of the changes on the non-financial accounts.

Table 1: Latest indicative average impact of the changes to the net lending or net borrowing for the UK sector's non-financial account
UK, 1997 to 2021

Sector	Indicative average revision to net lending (+) or borrowing (B.9N) £billion	Indicative average revision to net lending (+) or borrowing (B.9N) % of GDP	Largest downward revision to net lending (+) or borrowing (B.9N) % of GDP	Largest upward revision to net lending (+) or borrowing (B.9N) % of GDP
Public Corporations	0.1	0.0	-0.2	0.1
Private Non-Financial Corporations	0.1	0.0	-0.2	0.2
Financial Corporations	-0.2	0.0	-0.4	0.4
Central Government	0.0	0.0	-0.2	0.3
Local Government	-0.2	0.0	-0.2	0.0
Households	1.6	0.1	-0.3	0.4
Non-profit institutions serving households (NPISH)	0.5	0.0	-0.1	0.3
Rest of the World	-2.2	-0.1	-1.0	0.3

Source: Office for National Statistics

The data for years 2020 and 2021 see larger revisions than typical Blue Book changes because of the exceptional impact of the coronavirus (COVID-19) in that time period. Larger revisions come from several sources. This year, we are improving our estimates of 2020 data used in both GDP and the institutional sectors' sequence of accounts. We are also estimating 2021 for the first time using the supply and use tables (SUTs) framework. This looks at the supply of goods and services and how they are used in the economy, and their associated prices, in detail.

After bringing these data together in 2020, the UK's estimated annual net borrowing position with the rest of the world as a percentage of GDP has revised 0.3 percentage points to 3.0%; previously, this was estimated as 3.3%.

The main contributor behind this small improvement in the UK's borrowing position was a reduction in the estimated amount of UK final consumption expenditure in 2020, with households now being estimated to have spent £12.7 billion less. Within household expenditure, tourism expenditure of UK residents overseas revised downwards by £3.5 billion because of updated tourist adjustments. Methodological updates to tobacco expenditure also contributed a £3.5 billion downward revision. Moreover, source data updates on actual rental led to a decrease in our estimate of £2.8 billion.

Offsetting this, the UK saw a fall in the amount of non-financial corporation gross operating surplus received and a rise in inventories. The revisions to inventories are discussed as a cause behind revisions to headline GDP in our [Impact of Blue Book 2023 changes on gross domestic product article](#).

In 2021, the UK's estimated annual net borrowing position with the rest of the world as a percentage of GDP has revised 1.0 percentage point to 0.6% as a percentage of GDP. Previously, this was estimated as 1.6%. There was a downward revision of £16.5 billion in the number of inventories held. Meanwhile, financial corporations received £11.0 billion more gross operating surplus than previously estimated, improving their net lending position in 2021.

Reflecting the improved UK-estimated annual net borrowing positions in 2020 and 2021, the rest of the world's estimated annual net lending positions have reduced to 3.0% and 0.6% as a percentage of GDP, respectively.

Contributing to this, the rest of the world's total trade surplus in 2021 has been revised from £28.0 billion to £3.5 billion in value terms or as a percentage of GDP from 1.2% to 0.2%, caused mainly by higher UK trade in service exports across a number of service products, and higher estimated UK exports of education-related travel services resulting from our [Methodological improvements to UK education services exports](#).

The main contributors to the wider revisions to the trade in services balance in 2021 than in other years, were the annual Financial Services Survey and International Trade in Services data being incorporated into estimates during the reconciliation of the Supply and Use framework. Trade in services has always been more challenging to measure than trade in goods; the significant changes in the way services were delivered globally during the coronavirus pandemic made them particularly challenging to measure in recent periods.

Other methodological changes have affected trade in goods estimates. These include improving the way that we measure the ever-changing impact of globalisation, as discussed in our article [Globalisation in the context of the UK National Accounts](#), and improvements to the method of proportioning household expenditure on smuggled tobacco, set out in our [Impact of Blue Book 2023 changes on current price and volume estimates of gross domestic product methodology](#).

Impact on the household saving ratio

Figure 2 shows the indicative revisions of the household saving ratio in Blue Book 2023. The household saving ratio has been revised by an average of 0.1 percentage points between 1997 and 2019.

In 2020, the annual household saving ratio has been revised upwards by 0.7 percentage points from 15.9% to 16.6%. This was caused by the £12.7 billion reduction in the estimated amount of household expenditure in 2020.

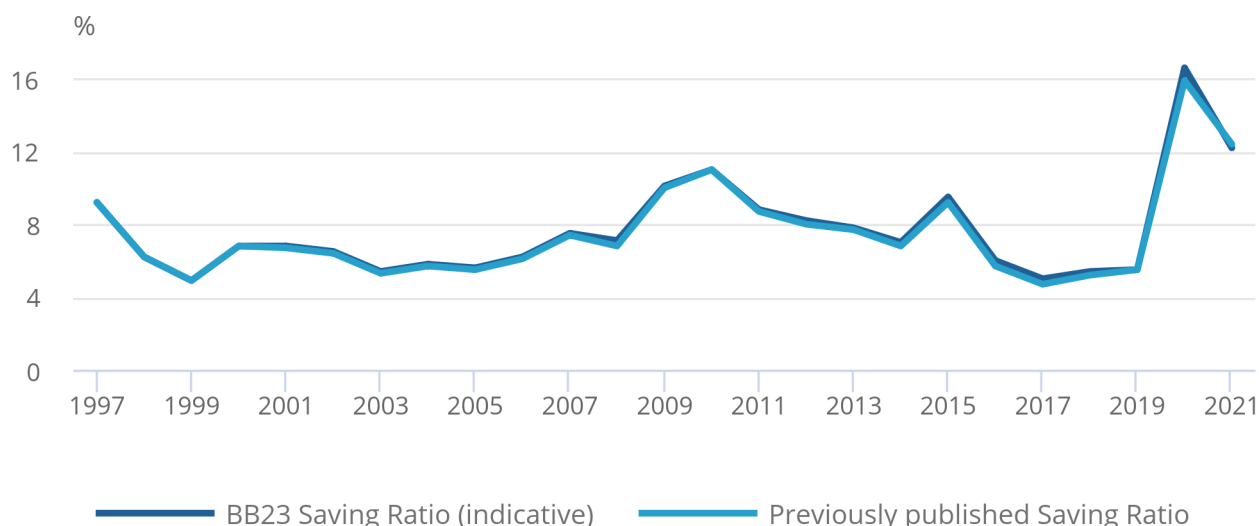
In 2021, the annual household saving ratio has been revised downwards by 0.2 percentage points from 12.4% to 12.2% as both pension and non-pension income revised downwards. Contributing to reduced non-pension income, compensation of employees (CoE) has seen a downward revision of £4.3 billion in 2021 following the availability of updated HMRC PAYE real time information (RTI) data for the financial year 2021 to 2022. These have been incorporated for the first time for wages and salaries, a sub-component of CoE.

Figure 2: Indicative impact to household saving ratio

UK, 1997 to 2021

Figure 2: Indicative impact to household saving ratio

UK, 1997 to 2021



Source: Office for National Statistics

5 . Indicative impacts on net lending and borrowing by sector

Not all sectors' indicative impacts on net lending or borrowing have been included in this article, where there were very small revisions. Sectors not included in this section are available upon request. Where applicable, the primary methodological improvement contributing to the Blue Book 2023 revision is highlighted in the title of the chart.

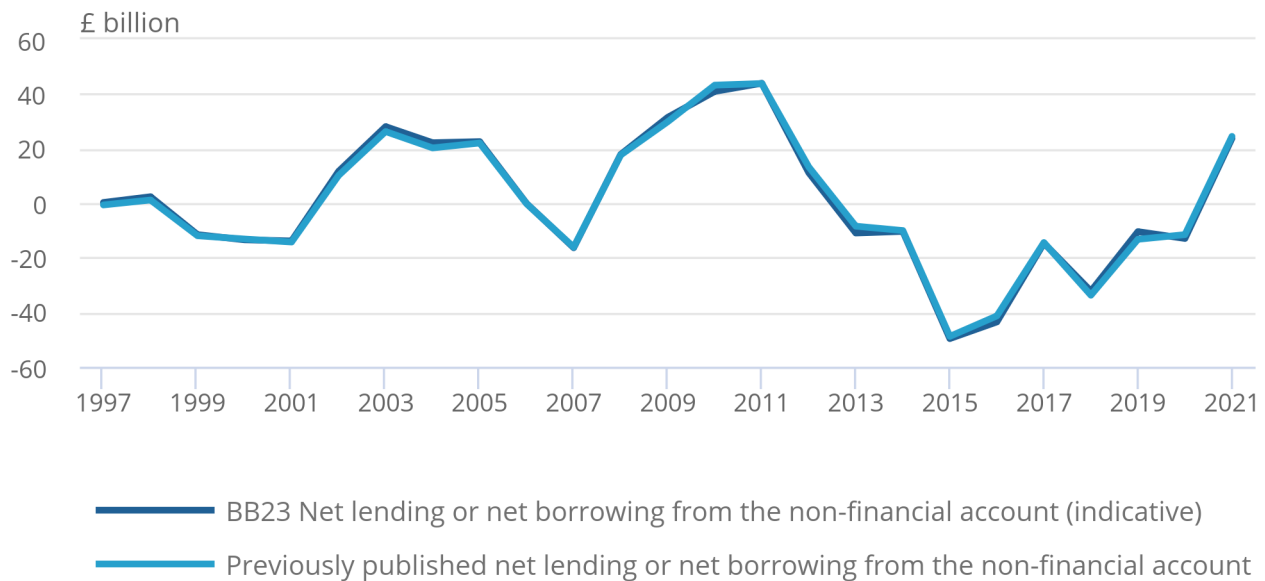
Private non-financial corporations

Figure 3: The average revision to private non-financial corporations' non-financial net lending or net borrowing is positive £0.1 billion, mainly attributed to improvements to public sector finances

UK, 1997 to 2021

Figure 3: The average revision to private non-financial corporations' non-financial net lending or net borrowing is positive £0.1 billion, mainly attributed to improvements to public sector finances

UK, 1997 to 2021



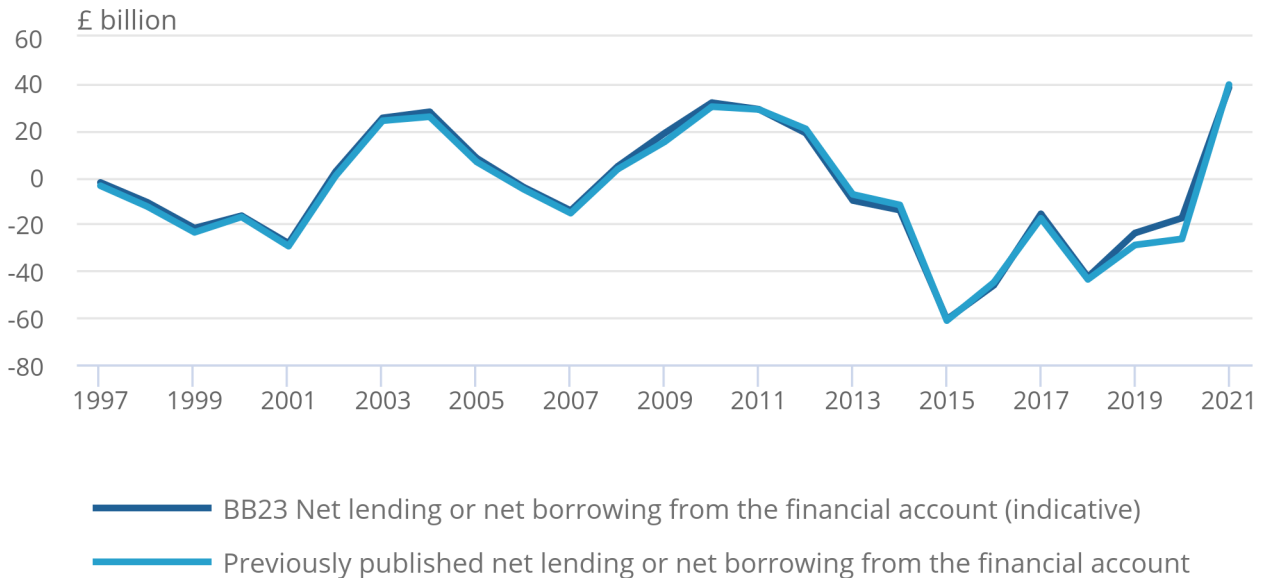
Source: Office for National Statistics

Figure 4: The average revision to private non-financial corporations' financial net lending or net borrowing is positive £1.2 billion, mainly attributed to improvements to public sector finances

Private non-financial corporations' net lending or net borrowing from the financial account, UK, 1997 to 2021

Figure 4: The average revision to private non-financial corporations' financial net lending or net borrowing is positive £1.2 billion, mainly attributed to improvements to public sector finances

Private non-financial corporations' net lending or net borrowing from the financial account, UK, 1997 to 2021



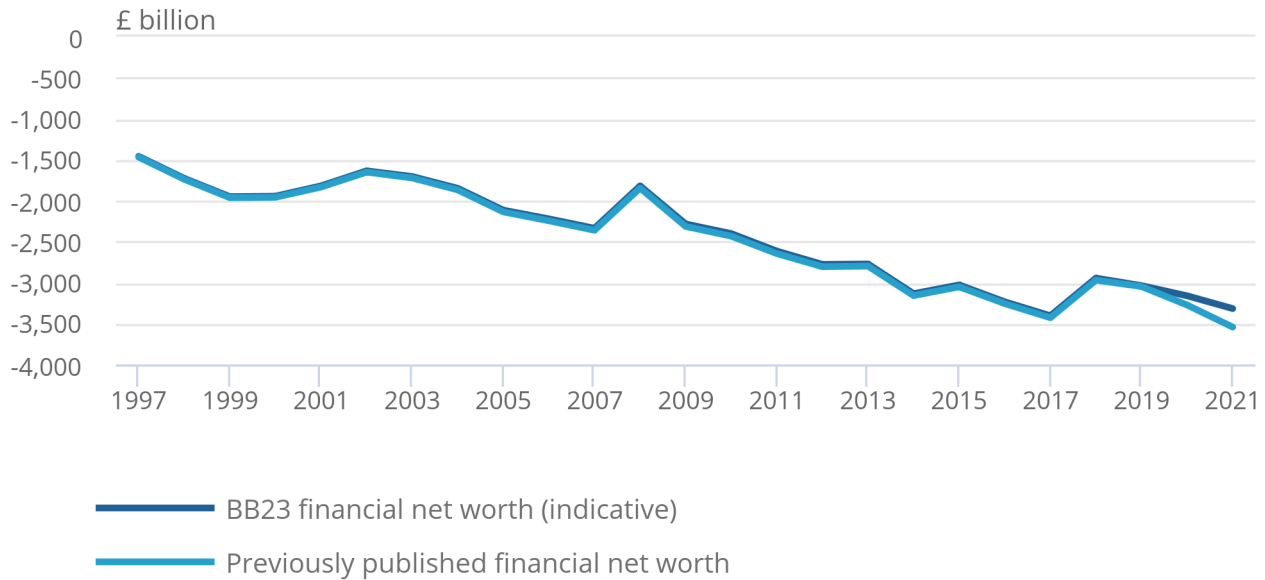
Source: Office for National Statistics

Figure 5: The average revision to private non-financial corporations' financial net worth is positive £32.6 billion, mainly attributed to improvements to public sector finances

Private non-financial corporations' financial net worth, UK, 1997 to 2021

Figure 5: The average revision to private non-financial corporations' financial net worth is positive £32.6 billion, mainly attributed to improvements to public sector finances

Private non-financial corporations' financial net worth, UK, 1997 to 2021



Source: Office for National Statistics

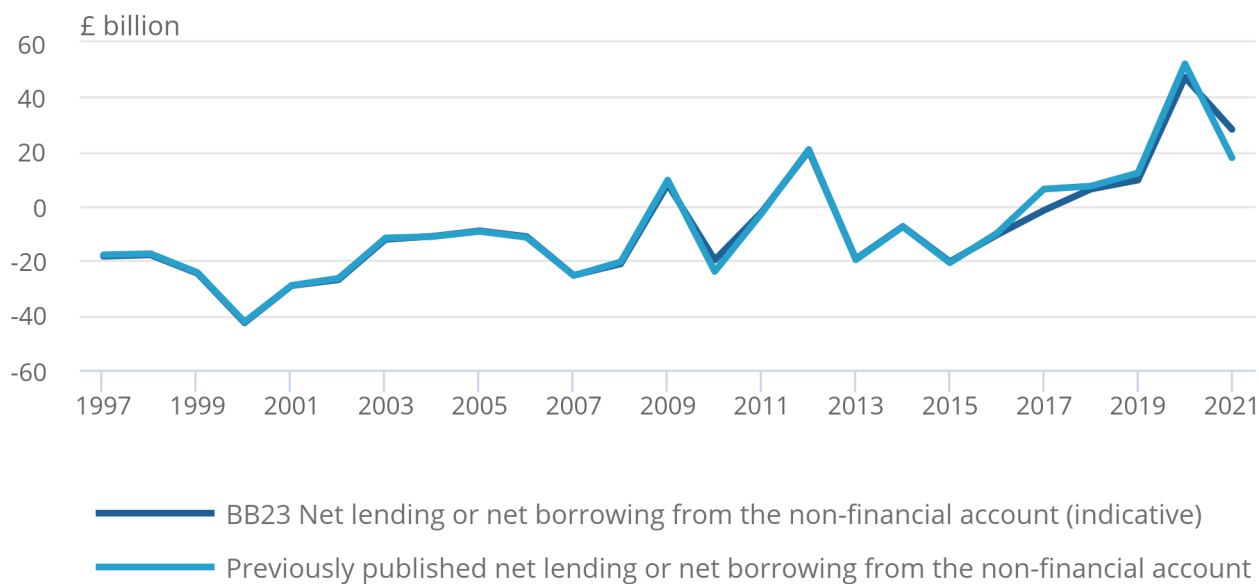
Financial corporations

Figure 6: The average revision to financial corporations' non-financial net lending or net borrowing is negative £0.2 billion, mainly attributed to changes to the redundancies benchmark

Financial corporations' net lending or net borrowing from the non-financial account, UK, 1997 to 2021

Figure 6: The average revision to financial corporations' non-financial net lending or net borrowing is negative £0.2 billion, mainly attributed to changes to the redundancies benchmark

Financial corporations' net lending or net borrowing from the non-financial account, UK, 1997 to 2021



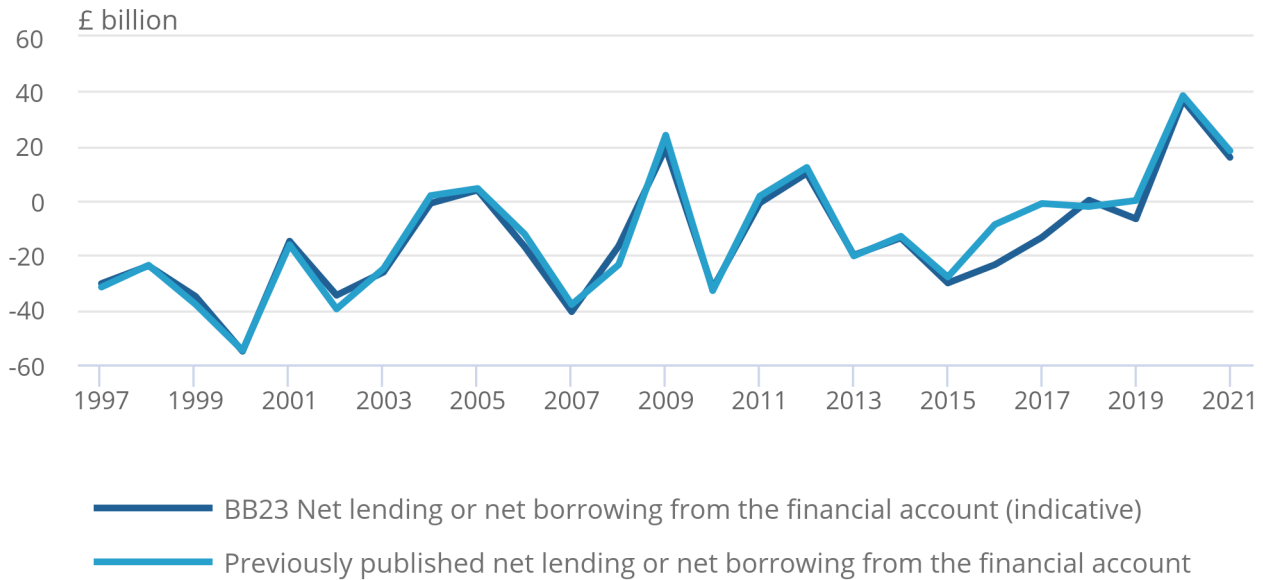
Source: Office for National Statistics

Figure 7: The average revision to financial corporations' financial net lending or net borrowing is negative £1.7 billion, mainly attributed to improvements to public sector finances

Financial corporations' net lending or net borrowing from the financial account, UK, 1997 to 2021

Figure 7: The average revision to financial corporations' financial net lending or net borrowing is negative £1.7 billion, mainly attributed to improvements to public sector finances

Financial corporations' net lending or net borrowing from the financial account, UK, 1997 to 2021



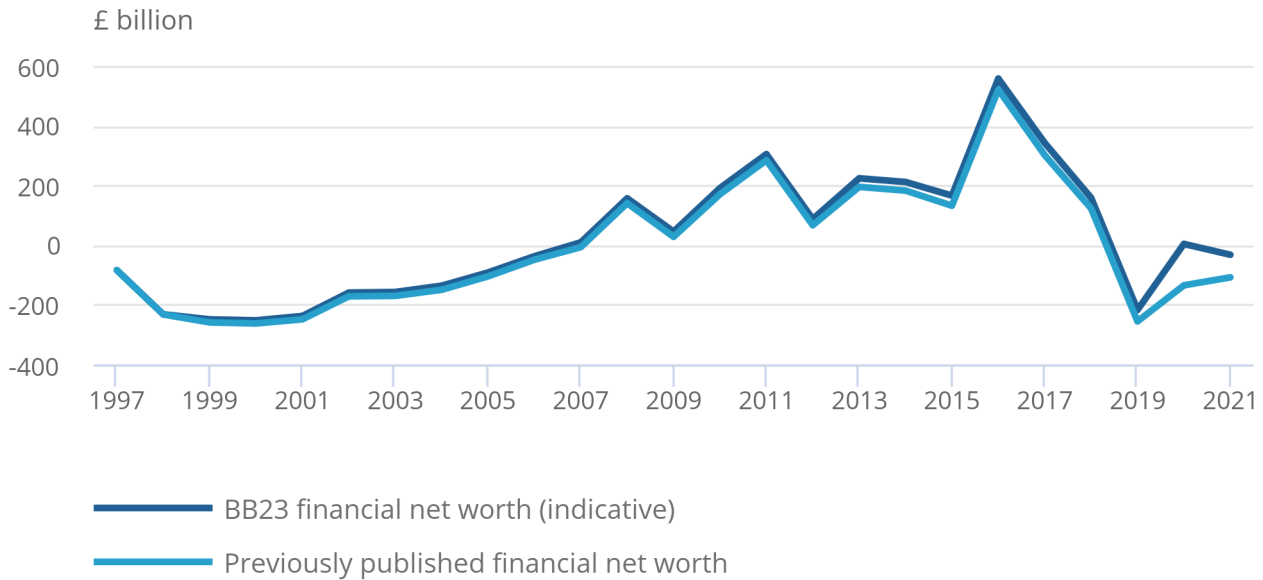
Source: Office for National Statistics

Figure 8: The average revision to financial corporations' financial net worth is positive £26.6 billion, with several contributing changes

Financial corporations' financial net worth, UK, 1997 to 2021

Figure 8: The average revision to financial corporations' financial net worth is positive £26.6 billion, with several contributing changes

Financial corporations' financial net worth, UK, 1997 to 2021



Source: Office for National Statistics

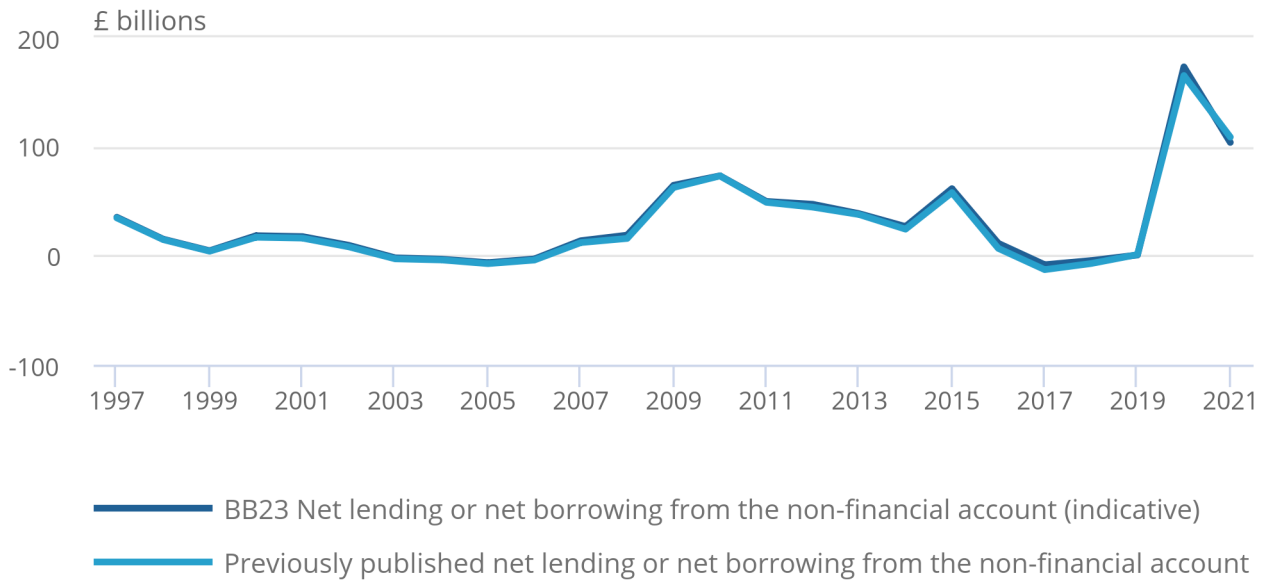
Households

Figure 9: The average revision to households' non-financial net lending or net borrowing is positive £1.6 billion, mainly attributed to changes to the redundancies benchmark

Households net lending or net borrowing from the non-financial account, UK, 1997 to 2021

Figure 9: The average revision to households' non-financial net lending or net borrowing is positive £1.6 billion, mainly attributed to changes to the redundancies benchmark

Households net lending or net borrowing from the non-financial account, UK, 1997 to 2021



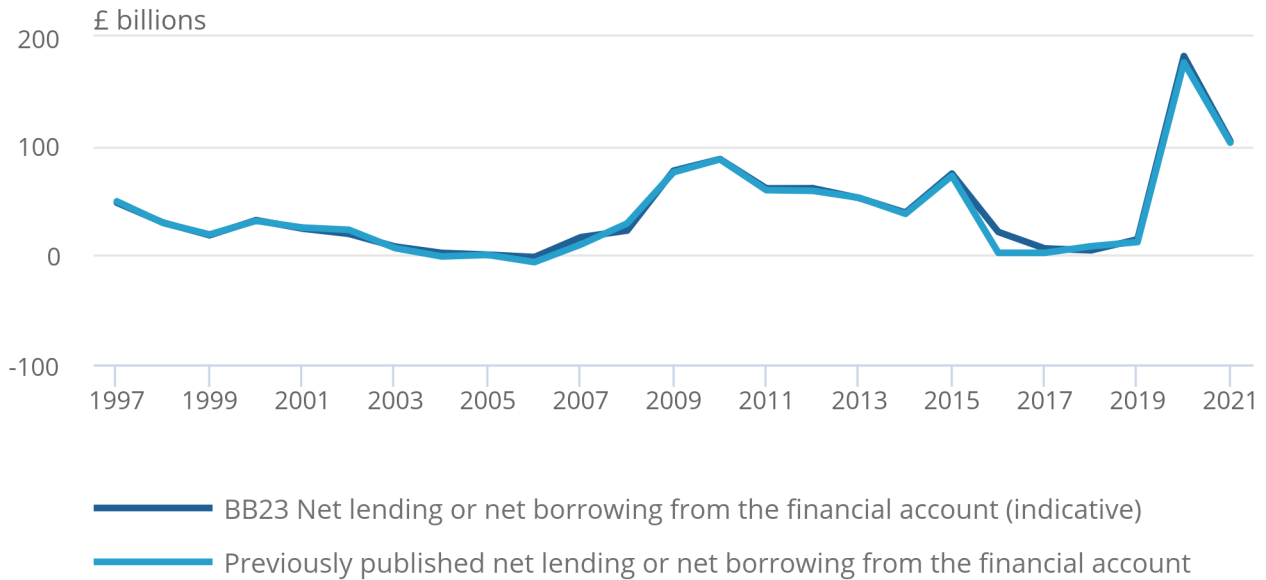
Source: Office for National Statistics

Figure 10: The average revision to households' financial net lending or net borrowing is positive £1.7 billion, with several contributing changes

Households net lending or net borrowing from the financial account, UK, 1997 to 2021

Figure 10: The average revision to households' financial net lending or net borrowing is positive £1.7 billion, with several contributing changes

Households net lending or net borrowing from the financial account, UK, 1997 to 2021



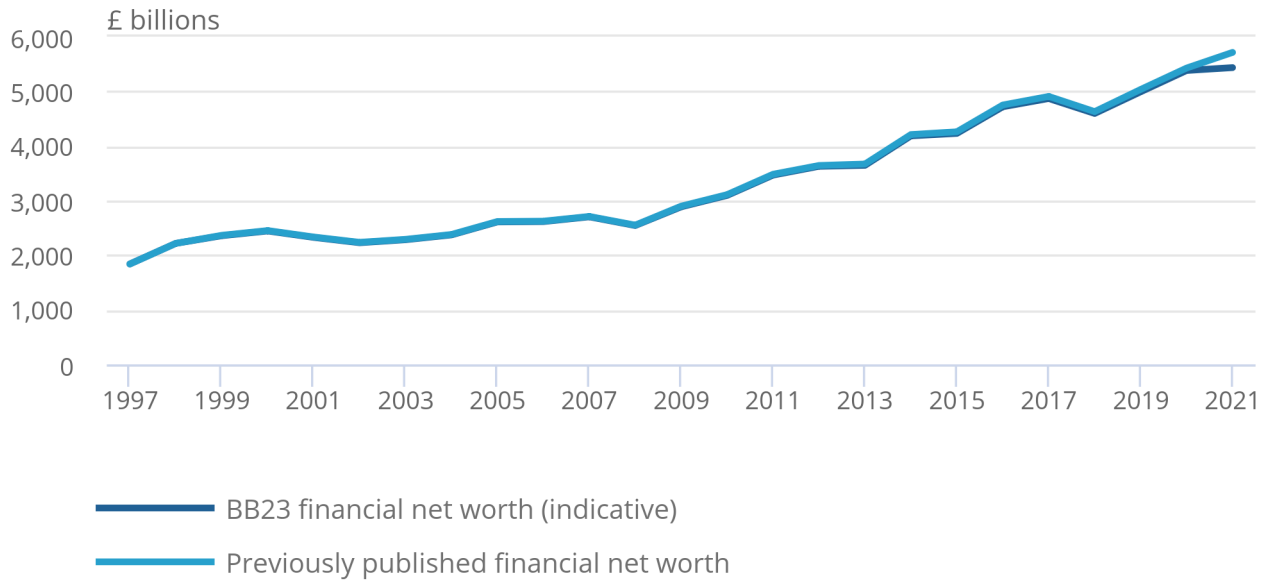
Source: Office for National Statistics

Figure 11: The average revision to households' financial net worth is negative £26.9 billion, with several contributing changes

Households' financial net worth, UK, 1997 to 2021

Figure 11: The average revision to households' financial net worth is negative £26.9 billion, with several contributing changes

Households' financial net worth, UK, 1997 to 2021



Source: Office for National Statistics

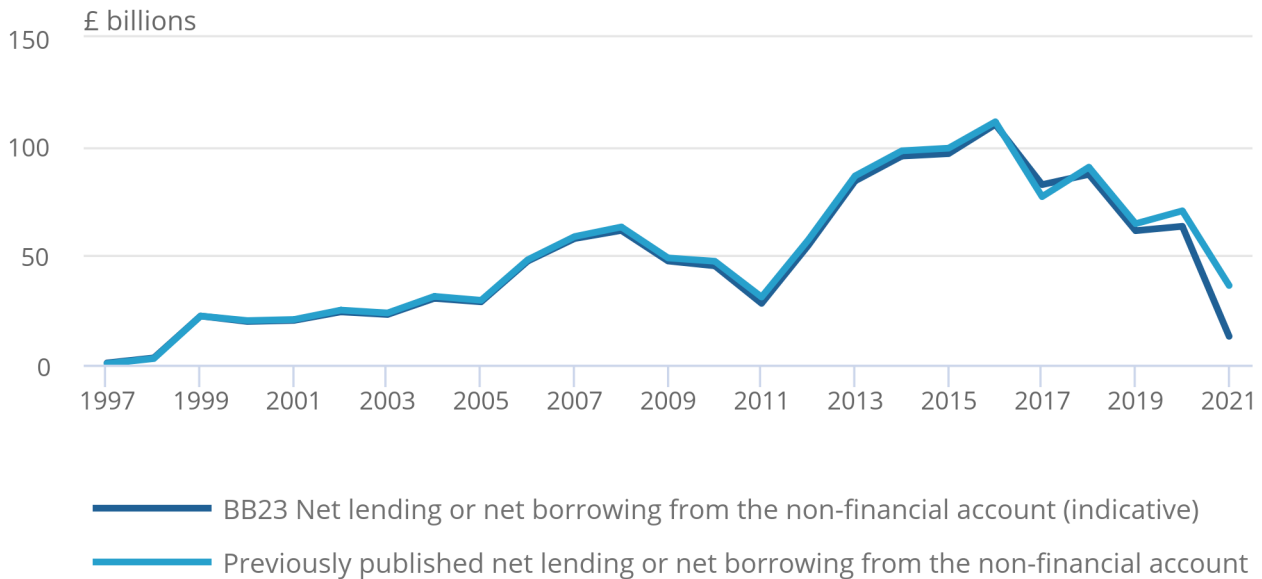
Rest of the world

Figure 12: The average revision to rest of the world non-financial net lending or net borrowing is negative £2.2 billion, while the rest of the world total trade surplus has revised £24.5 billion in 2021

Rest of the world net lending or net borrowing from the non-financial account, UK, 1997 to 2021

Figure 12: The average revision to rest of the world non-financial net lending or net borrowing is negative £2.2 billion, while the rest of the world total trade surplus has revised £24.5 billion in 2021

Rest of the world net lending or net borrowing from the non-financial account, UK, 1997 to 2021



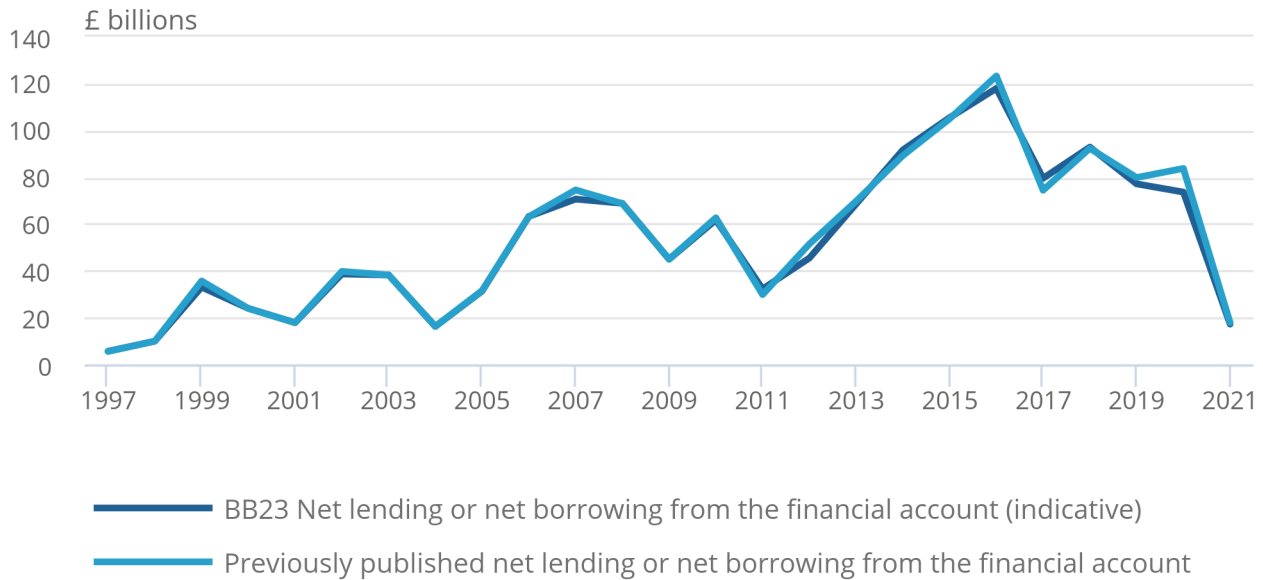
Source: Office for National Statistics

Figure 13: The average revision to rest of the world financial net lending or net borrowing is negative £0.9 billion with several contributing changes

Rest of the world net lending or net borrowing from the financial account, UK, 1997 to 2021

Figure 13: The average revision to rest of the world financial net lending or net borrowing is negative £0.9 billion with several contributing changes

Rest of the world net lending or net borrowing from the financial account, UK, 1997 to 2021



Source: Office for National Statistics

Figure 14: The average revision to rest of the world financial net worth is negative £12.8 billion with several contributing changes

Rest of the world financial net worth, UK, 1997 to 2021

Figure 14: The average revision to rest of the world financial net worth is negative £12.8 billion with several contributing changes

Rest of the world financial net worth, UK, 1997 to 2021



Source: Office for National Statistics

6 . Detailed assessment of changes to institutional sector accounts data

[UK Economic Accounts: all data](#)

Dataset | Released 30 June 2023

Quarterly estimates of national product, income and expenditure, sector accounts and balance of payments. This large file combines all UK Economic Accounts data; individual datasets are available separately.

7 . Glossary

8 . Data sources and quality

From 2019 onwards, selected updated data sources and their impact on the sector and financial accounts include the following.

HM Revenue and Customs (HMRC) Pay As You Earn (PAYE) data

- Primary affected sector: households.
- Affected transaction(s): wages and salaries (D11).
- Affected account: non-financial account.

HMRC self-assessment data

- Primary affected sector: households.
- Affected transaction(s): mixed income (B3g).
- Affected account: non-financial account.

Annual Business Survey (ABS) retail sales estimates

- Primary affected sector: households.
- Affected transaction(s): household final consumption expenditure (P3).
- Affected account: non-financial account.

Office for National Statistics (ONS) estimates of Financial Intermediation Services Indirectly Measured (FISIM)

- Primary affected sector: households.
- Affected transaction(s): household final consumption expenditure (P3).
- Affected account: non-financial account.

Corporation and income tax accruals

- Primary affected sector: financial corporations, households, and private non-financial corporations.
- Affected transaction(s): other accounts receivable or payable excluding trade credits and advances (F89).
- Affected account: financial account.

Markit iBoxx, Bloomberg

- Primary affected sector: rest of the world, financial corporations, private non-financial corporations.
- Affected transaction(s): medium- and long-term bonds issued by UK monetary financial institutions (MFIs) and other residents (F32N56).
- Affected account: financial account and non-financial account.

Foreign direct investment (FDI) benchmark data

- Primary affected sector: rest of the world, private non-financial corporations, financial corporations, households, non-profit institutions serving households (NPISH).
- Affected transaction(s): loans (F4) and equity (F5).
- Affected account: financial account and non-financial account.

Wealth and Assets Survey

- Primary affected sector: rest of the world, private non-financial corporations, financial corporations, households, NPISH.
- Affected transaction(s): rest of the world shares and other equity (F519N92).
- Affected account: financial account.

Central Government Final Outturn data for 2021 to 22

- Primary affected sector: central government, local government, households.
- Affected transaction(s): all transactions in central government, miscellaneous current transfers (D7) in local government, current taxes (D5) in all sectors.
- Affected account: financial account and non-financial account.

9 . Future developments

We will announce further methodological improvements that affect the non-financial and financial accounts of the UK institutional sectors in our article, Proposed changes to be implemented in Blue Book and Pink Book 2024, scheduled for release in late 2023.

10 . Related links

[Impact of Blue Book 2022 changes on gross domestic product](#)

Article | Released 1 September 2023

Impact of methodological and data improvements on current price and chain volume measure of quarterly gross domestic product (GDP), 1997 to 2021.

[Impact of Blue Book 2023 changes on current price and volume estimates of gross domestic product](#)

Article | Released 3 July 2023

Methodological and data improvements that affect current price and chain volume measure of gross domestic product (GDP), 1997 to 2020.

11 . Cite this article

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