

Article

National Accounts historic dataset developments since Blue Book 2011



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1. Background

Official gross domestic product (GDP) statistics were first produced and published in the UK in 1955, when the annual UK National Accounts for 1946 to 1955 were published. The first quarterly GDP data were introduced in 1955 and the introduction of chain-linking meant that the annual starting point for all series became 1948.

Up to and including Blue Book 2010, the UK National Accounts datasets attempted to maintain a consistent time series for the full suite of UK National Accounts variables back to 1948 annually and 1955 quarterly. Producing consistent back data for over 10,000 individual series with all the necessary interdependencies and UK National Accounts identities was a significant challenge, especially during the annual update of the UK National Accounts. Over the years various methodological changes had been applied to the historic data, such as the inclusion of the financial intermediation services indirectly measured (FISIM) adjustments, without the required detailed rebalancing of the historic picture of the economy. So while the data were consistent, the impacts of methodological changes were not necessarily applied fully in the UK National Accounts.

The updating of historic data (defined by our systems as pre-1997) becomes even more challenging during large-scale classification and methodology updates, such as the move to Standard Industrial Classification 2007 (SIC07) in 2011 when the required information to implement the SIC07 change on the detailed historic dataset was unavailable.

In Blue Book 2011 we decided to produce a reduced number of high-quality series rather than continuing to maintain all the series and the subsequent risks this brought of inconsistencies and unnecessary revisions to the economic history. The introduction of an integrated production system on a new IT platform, combined with the revised industrial classification (SIC07) and updated Classification of Product by Activity 2008 (CPA08), also gave us the opportunity to review the range of data published across the UK National Accounts.

We took the step of defining a “core” UK National Accounts dataset for historic data in order to continue producing a consistent and coherent set of UK National Accounts which could be maintained and updated through future Blue Books, while also meeting both user and legislative requirements. More information can be found in the article [historic UK National Accounts data proposals for Blue Book 2011](#). Since Blue Book 2011 we have gradually reintroduced various historic datasets following detailed quality assurance, and sped up the production of historic data so that it is released on the same day as the headline GDP annual updates.

This article has been written to inform users of recent developments in historic GDP and sector and financial accounts data, as well as providing links for users to access all the historic datasets in 1 place.

2. Introduction

To remove any discontinuity in time series data we took the decision to remove all historical datasets in Blue Book 2011. Our new systems could not be populated with data pre-1997 in time for the Blue Book 2011 publication, and we decided that it was better initially to start all series in 1997 and then gradually reintroduce earlier series once full quality assurance had taken place. Recognising the value to our external users and the recommendations provided in independent reviews, we launched a programme of work to:

- prioritise the GDP and component datasets as the first to be reinstated historically; these are recognised as the “core” dataset and descriptions of the components are presented in Annex A
- ensure methodological improvements are taken back pre-1997 to provide users with consistent time series data
- introduce better synergies between the regular post-1997 data and the historical series
- publish historical series on the same day as regular UK National Accounts releases
- take on board feedback from our users for further enhancements to the historic datasets (see Annex B)
- better signpost the availability of historical datasets by utilising UK National Accounts articles and releases to link to published series

This article will step through the introduction of each of these work packages since Blue Book 2012.

3. Revisions to Historic Data

Blue Book 2012

Blue Book 2012 addressed the European System of Accounts (ESA) 1979 and ESA 1995 Gross National Income (GNI) reservation relating to the measurement of the insurance back to 1987. Additionally, the deflator change implemented post-1997 within Blue Book 2011 to move from Retail Price Index (RPI) deflators to Consumer Price Index (CPI) was extended to cover from the start of the GDP series to 1996.

We published the “core” UK National Accounts dataset for historic data a few months after the 31 July 2012 Blue Book publication date because these data were processed on a separate system from the 1997-onwards dataset.

Blue Book 2013

In Blue Book 2013, 3 ESA 1995 GNI reservations for own account software, improved estimation of artistic originals and imputed rentals of owner occupiers were all addressed back to 1990.

The “core” UK National Accounts historic dataset was again released slightly after the 31 July 2013 Blue Book publication.

The lower-level components for household final consumption expenditure (HHFCE) back to 1985 and gross fixed capital formation (GFCF) back to 1987 were updated to reflect these revisions and published in Blue Book Chapters 6 and 9 respectively. However, due to the challenging nature of this work, and the alternative systems still being used, the detailed GFCF data were published on 11 July 2014, almost a year after Blue Book 2013 was released. We also took this opportunity to fix an issue with the historic HHFCE lower-level components.

Blue Book 2014

In Blue Book 2014, 3 further ESA 1995 GNI reservations were addressed historically relating to household expenditure on new cars, the inclusion of illegal activities into the UK National Accounts and improvements made to the measurement of “own account construction”. Blue Book 2014 also saw the implementation of ESA 2010, which included methodological changes for research and development, weapons systems and pensions. These revisions were addressed back to 1948, where applicable, and the [methodological improvements and ESA 2010 changes to historic GDP datasets for Blue Book 2014](#) article contains further detail on these changes.

For Blue Book 2014, the production of historic GDP data was moved onto the main UK National Accounts IT platform that had been used since Blue Book 2011 for the more recent time periods. This meant we were now able to revise the “core” UK National Accounts historic dataset to the same timescale as the 1997 and later series, as well as publishing more detailed historic data.

The GDP historic core dataset was published on 30 September 2014, the same time as the main headline Blue Book consistent Quarterly National Accounts release.

The revisions of Blue Book 2014 were also fully implemented into the Sector and Financial Accounts and Balance of payments historic datasets. However, because of the challenging scale of the changes and number of time series involved, the publication of the historic data was delayed.

The historical Income and Capital dataset from the Sector Accounts and the historical Balance of Payments Primary and Secondary Income dataset were published on 23 February 2015 and the historical Financial Account dataset from the Sector Accounts was published on 18 May 2015.

We also published for the first time the annual and quarterly [low level aggregates of UK output gross value added \(GVA\)](#) on a constant and current price basis back to 1990.

Blue Book 2015

In Blue Book 2015, the main historic revisions addressed ESA 1995 GNI reservations for exhaustiveness adjustments for concealed income and under-coverage of unincorporated businesses, new estimates within the NPISH sector, and cross-border property income. The [impact of Blue Book 2015](#) article contains further detail on the changes made for Blue Book 2015.

The GDP, Sector Accounts, Balance of Payments and Blue Book historic datasets were all published at the same time as Blue Book 2015 on 30 October 2015.

For the Blue Book 2015 consistent Quarterly National Accounts and UK Economic Accounts, released on 30 September 2015, we published historic reference tables containing the full time series; GDP components back to 1948 annually and 1955 quarterly; and Sector Accounts data back to 1987.

At the request of users, sectorised Gross Operating Surplus (Public Non-Financial Corporations, Private Non-Financial Corporations, Financial Corporations, Central Government, Local Government, Households and NPISH) were published on a consistent basis back to 1948 annually and 1955 quarterly at the same time as Blue Book 2015.

4. Website links

Historic data will now be available to users as part of regular data releases and is updated annually in line with the Blue Book publications.

The table below contains links to historic data on the website at the time of publication.

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```

Publication	Time Series Data	Data Tables
Preliminary Estimate of GDP	Preliminary Estimate of GDP time series dataset	GDP(O) Low Level Aggregates
Second Estimate of GDP	Second Estimate of GDP time series dataset	UK Historic Quarterly National Accounts data tables
Quarterly National Accounts	Quarterly National Accounts time series dataset	UK Quarterly National Accounts Data Tables
UK Economic Accounts	United Kingdom Economic Accounts time series dataset	National Accounts aggregates UK Sector NFC Sector FC Sector GG Sector HN Sector RWSector
Blue Book	The Blue Book time series dataset	The Blue Book Data Tables
Pink Book	The Pink Book time series dataset	The Pink Book Data Tables

5. Developments

- On 12 January 2016 we released an article on the [historical estimates of financial accounts and balance sheets](#) which outlined some initial steps to try and reconstruct historical sector financial accounts and balance sheets for the UK prior to 1987
- In the Quarterly National Accounts release published on 31 March 2016, we took the opportunity to combine 2 datasets which were previously published. The 2 datasets were UK Historic Quarterly National Accounts Data Tables, 1948 to 1996 and UK Quarterly National Accounts Data Tables for 1997 onwards
- In the Second Estimate of GDP being published on 26 May 2016, we will take the opportunity to combine the [UK Historic Quarterly National Accounts data tables](#) with the [UK Second Estimate of GDP Data Tables](#)
- For Blue Book 2016, the reference tables will include the full annual time series dataset
- Capital consumption by sector will be published back to 1995 in Blue Book 2016 to meet a Eurostat derogation
- Output, market output, output for own final use, non-market output and intermediate consumption by sector will be published annually back to 1987 in Blue Book 2016. These series were last updated historically in Blue Book 2012

6. Contact

We will continue to improve and develop the historic dataset and we welcome feedback on any series you would like particular attention paid to. Please contact gdp@ons.gsi.gov.uk with any comments.

**7. Annex A: Core GDP dataset maintained from 1948 and Q1
Jan to Mar 1955**

CDIDs**Seasonally adjusted****Not seasonally adjusted****Current prices****Constant prices Current prices Constant prices****GDP at marked prices from the expenditure side**

GDP at market prices (GDP = P.3 + P.5 + P.6 - P.7 + de)	YBHA	ABMI	BKTL	BKVT
Gross final expenditure(P.3+P.5+P.6)	ABMF	ABMG	ABMD	ABME
Total domestic expenditure (P.3 + P.5)	YBIL	YBIM	YBIJ	YBIK
Final consumption expenditure (P.3)	ABKY	CAFI	ABKW	ABKX
Final consumption expenditure: households and NPISH	RPQM	NPSP	NSSG	NPSO
Final consumption expenditure: households	ABJQ	ABJR	ABPB	ABPF
Final consumption expenditure: NPISH	HAYE	HAYO	ABNV	ABNU
Final consumption expenditure: general government	NMRP	NMRY	NMRK	NMRU
Gross capital formation (P.5)	RQCM	CAGP	NQFM	NPQU
Gross fixed capital formation (P.51)	NPQS	NPQT	NPQX	NPQR
Changes in inventories (P.52)	CAEX	CAFU	ABMP	ABMQ
of which - alignment adjustment	DMUN	DMUM		
Acquisitions less disposals of valuables (P.53)	NPJQ	NPJR	NPJO	NPJP
Exports of goods and services (P.6)	IKBH	IKBK	KTMW	KTMZ
Exports of goods (P.61)	BOKG	BQKQ	LQAD	BQKP
Exports of services (P.62)	IKBB	IKBE	KTMQ	KTMT
Imports of goods and services (P.7)	IKBI	IKBL	KTMX	KTNB
Imports of goods (P.71)	BOKH	BQKO	LQBL	BQKN

Imports of services (P.72)	IKBC	IKBF	KTMR	KTMU
Statistical error - expenditure (de)	GIXM	GIXS	RVFD	GIXS
GDP at market prices from the income side				
GDP at market prices (GDP = D.1 + B.2g + D.2 - D.3 + di)	YBHA	ABMI	BKTL	BKVT
Compensation of employees (D.1)	DTWM		HAEA	
Gross operating surplus (B.2g)	ABNG		ABNF	
Mixed income (B.3g)	RNKX		HAXH	
Taxes on production less subsidies (D.2 - D.3)	CMVL		GCSC	
Statistical error - income (di)	GIXQ		RVFC	
Other GDP and GVA measures				
Basic prices adjustment (BPA = D.21 - D.31)	NTAP	NTAO		
Taxes on products (D.21)	NTAG	NTAH		
Subsidies on products (deduction for) (D.31)	RUFI	RUFG		
Factor cost adjustment (FCA = D.2 - D.3)	CMVL	CMVN		
Taxes on production (D.2)	NTAB	NTAF		
Subsidies on production (deduction for) (D.3)	AAXW	DIFV		
Gross value added at basic prices (GDP - BPA)	ABML	ABMM		
Gross value added at factor cost (GDP - FCA)	ABNB	YBHH		
Individual measures:				
Gross value added at basic prices - expenditure based estimate (GDP(E))	CAGQ	CAGR		

Gross value added at basic prices - income based estimate (GDP(I))	CAGS	CAGT
Gross value added at basic prices - output based measure (GDP(O)): Index		YBFR

###Notes: 1. Q1 = Quarter 1 (Jan to Mar) 2. The series shown are the £ billion versions (except YBFR). The maintained dataset includes value, price and volume indices, implied deflators and growth series where they can be derived from these series.

8. Annex B: Further enhancements to the historic datasets

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	Start Date	
	Annually	Quarterly
GDP(O) low level aggregates	1990	1990
HH detailed breakdowns	1985	1985
GFCF detailed breakdowns	1987	1987
Sector Accounts	1987	1987
Gross National Disposable Income	1987	1987
Saving Ratio	1963	1963
Household Disposable Income	1948	1955
Gross Operating Surplus sectors	1948	1955
Compensation of employees sectors	1987	1987