

Article

# Economic Statistics Transformation Programme: UK flow of funds experimental balance sheet statistics, 1997 to 2015

This article, together with the accompanying reference tables and interactive visualisation, updates the experimental flow of funds balance sheet statistics first published in November 2015 and includes estimates for 2015 for the first time. This work is part of the development of the UK's enhanced financial accounts (flow of funds) which is conducted in partnership between the Office for National Statistics (ONS) and the Bank of England (the Bank). A key objective of the project is to develop whom-towhom estimates for financial account transactions and balance sheet levels, publishing the counterparty relationships for each financial instrument rather than the total asset and/or liability position for each institutional sector in isolation. Included in this article is a presentation of the currently available whom-to-whom statistics for balance sheets, with experimental estimates for the majority of financial instruments from 1997 to 2015, on a quarterly basis. The instruments covered are; currency; deposits; short-term debt securities; long-term debt securities; loans, equity and investment fund share or units; insurance, pension and standardised guarantee schemes; and financial derivatives. Other instruments are not included, as either counterparty information is not currently available, or there is no counterparty to the instrument.

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#### 1. Introduction

In late 2014, we began working in partnership with the Bank to improve both the coverage and quality of flow of funds statistics for the UK. An article, The UK Flow of Funds Project: introduction, progress and future work, was published in July 2015, introducing the work and presenting the initial findings. A further article, The UK Flow of Funds Project – comprehensive review of the UK financial account, was published in November 2015, presenting experimental whom-to-whom estimates for financial balance sheet levels. This article, Economic Statistics Transformation Programme: UK flow of funds experimental balance sheet statistics 1997 to 2015, updates the experimental statistics published in November 2015 with the new UK National Accounts (Blue Book) 2016 figures.

The accompanying explanatory notes (see <u>associated tables and information section 6</u>) published for the first time with the November article, highlight strengths in the current data but also areas where the quality of current statistics could be improved or would benefit from further review. A important area for improvement to the counterparty information published in these experimental statistics is to identify new data sources to refine the counterparty splits where these are allocated by fixed proportions. Although work on exploring new data sources is progressing, the experimental statistics in this publication use the same data sources as those published in November, except where Blue Book revisions have been taken on.

Section 2 explains the major changes that have influenced the estimates in this release. Revisions tables for 2014 can be found with the datasets that accompany this release. Section 3 summarises the differences between the Blue Book 2016 release and these experimental statistics. Section 4 illustrates the data with an interactive visualisation while Section 5 includes a brief summary of the future work plans. Links to additional background information on the enhanced financial accounts, including explanatory notes on each instrument represented, are included in sections 6 and 7.

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#### 2. Blue Book revisions

In July 2016, Blue Book 2016 was published along with a number of <u>articles highlighting the changes</u> <u>implemented</u>. The major impacts on the whom-to-whom matrices are below:

- annual realignment of National Accounts with Public Sector Finance statistics
- re-classification of London Continental Railway to the public corporations sub-sector from Central Government
- improved estimation of bonds, UK listed shares and mutual funds
- improved estimation of deposits with monetary financial institutions
- improvements to private non-financial corporation's balance sheets
- changes to holdings of property
- changes to the treatment of Eurostar equity sale inclusion of the London Crossrail Business Rates Supplement

More information on these changes can be found in the <u>Blue Book 2016</u> release.

### 3. The experimental flow of funds statistics

The financial accounts are classified by various financial instruments as described by the <u>European System of Accounts 2010</u> (ESA10). For this publication we have updated the following instruments with new data for quarterly periods between 1997 and 2015:

- currency
- deposits
- · short-term debt securities
- long-term debt securities
- loans
- · equity and investment fund shares or units
- insurance, pension and standardised guarantee schemes
- financial derivatives

The economy is also classified by economic sector. In the UK National Accounts, 9 sectors are currently identified:

- public corporations (PC) publically owned or controlled non-financial corporations
- private non-financial corporations (PNFC)
- monetary financial institutions (MFI) including banks and building societies
- other financial institutions (OFI) those which are not banks or building societies but engaged in the production of financial services
- insurance corporations and pension funds (ICPF)
- central government (CG)
- local government (LG)
- households and non-profit institutions serving households (HH and NPISH) which includes charities and universities
- rest of the world (RoW) any company or organisation that is not based within the UK

The <u>datasets</u> present the interactions between the sectors for each financial instrument. They show the value of each financial asset held by each sector (creditor) and the sector which holds the corresponding liability (debtor). For a number of instruments or groups of instruments, ONS has published the sectoral relationships in publications such as the <u>Blue Book</u> and <u>UK Economic Accounts</u> since 1987, but this exercise takes the opportunity to disaggregate them further.

Matrices have not been published for all financial transactions. For monetary gold and special drawing rights there is only 1 sector on the asset side and therefore a flow of funds matrix is not necessary. For employee stock options and for other accounts payable or receivable no counterparty data are currently available.

Within all these matrices adjustments have been made where, in some cases, splits in the current data have caused negative values to appear. In these cases the values have been zeroed. Where things do not sum to totals within the matrices in the <u>reference tables</u> due to rounding the differences are small. These minor adjustments have led to these estimates differing in some places from the <u>Blue Book</u> estimates, with the largest differences being in deposits. These differences however are small, ranging between minus £33.8 billion and £3.2 billion which is less than 0.3% of the totals for the transactions. The majority of the tables match the <u>Blue Book</u> estimates.

#### 4. The interactive visualisation

As detailed in the <u>The UK flow of funds project: identifying sectoral interconnectedness in the UK economy article</u> published in March 2016, these data can also be visualised in an interactive visualisation as shown in diagram 1.

Diagram 1: An interactive visualisation (Sankey diagram) showing the interactions between the various national account sectors and transactions consistent with Blue Book 2016 data

Here the left hand bar represents each sector (on the financial liability side), the middle bar represents the instruments in which financial liabilities are held and the right hand bar represents the counterparty sectors (on the asset side).

The thread between sector liability (left hand bar) and instrument (centre bar) represents the level of financial liabilities in a specific instrument. The thread between instrument (centre bar) and counterparty sector (right hand bar) represents the holding (in level terms) of a particular financial liability instrument by the counterparty sector (as an asset).

By hovering over each thread on the interactive diagram, it is possible to see the liability, instrument, and or asset levels in the box at the top of the diagram. For example, in the diagram the dark teal thread between "MFI liability" and "deposits" illustrates the level of MFI liabilities held in deposits, which for 2014 was £6,275 billion. The dark teal highlighted thread between "deposits" and "MFI asset" illustrates the counterparty level of that deposit liability (as an asset) for other UK MFIs. So, of total MFI deposit liabilities of £6,275 billion, £1,347 billion was held by other UK MFIs.

#### 5. Future work

We will continue to update these tables with revisions on at least an annual basis while working to improve the coverage and quality of the data within these tables.

Future work for the enhanced financial accounts includes seeking new data sources to improve the quality, coverage and granularity of these statistics, including counterparty information. More information on the vision and plans for the UK's enhanced financial accounts can be found in the article <a href="Economic Statistics">Economic Statistics</a>
<a href="Transformation Programme: Developing the enhanced financial accounts">Transformation Programme: Developing the enhanced financial accounts</a> (UK flow of funds)

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#### 6. Associated tables and information

Interactive visualisation of total financial assets and liabilities

Interactive visualisation of financial assets and liabilities separated by transaction type

#### **Datasets**

Explanatory notes for each financial instrument covered in the article published in November 2015:

- F.2 Currency and deposits
- F.3 Debt securities
- F.4 Loans
- F.5 Equity and investment fund shares units
- F.6 Insurance, pension and standardised guarantee schemes
- F.71 Financial derivatives

#### 7. Further Information

Flow of Funds archived background information

14 July 2016 Article – Flow of Funds - the international context

14 July 2016 Article - Developing the enhanced financial accounts (UK Flow of Funds)

10 March 2016 Article – <u>Identifying Sectoral Interconnectedness in the UK Economy</u>

24 February 2016 Article - Improvements to the Sector and Financial Accounts

12 January 2016 Article - <u>Historical Estimates of Financial Accounts and Balance Sheets</u>

8th November 2015 Article – Comprehensive Review of the UK Financial Accounts

13 July 2015 Article – Introduction Progress and Future Work

Financial Statistics Expert Group minutes

- 21 October 2014
- 22 January 2015
- 22 July 2015
- 7 December 2015 and 2 August 2016 can be requested from FlowOfFundsDevelopment@ons.gov.uk

## 8 . Acknowledgements

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