

Article

UK flow of funds accounts matrices: 2019

Annual update of the UK flow of funds matrices incorporating the latest available Blue Book data, as part of the Economic Statistics Transformation Programme.

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1 . Summary

This release summarises the latest flow of funds matrices which show the financial relationships between the various sectors of the UK economy.

Included is a presentation of the latest experimental “from-whom-to-whom” statistics, with estimates for financial instruments from 1997 to 2018. These data are consistent with the data published in the Office for National Statistics (ONS) publications [UK Economic Accounts 2019 Q2 \(UKEA\)](#) and the [UK National Accounts, The Blue Book: 2019](#).

We have included visualisations for the statistics and an updated Sankey diagram. These visualisations are a result of ongoing development work aimed at making our data more accessible and informative for our users. We welcome further feedback on the way we present the data. We have also updated our explanatory notes, linked into [Section 8](#).

Please contact us via flowoffundsdevelopment@ons.gov.uk if you would like to provide feedback.

2 . Introduction

Informed by our [Economic Statistics and Analysis strategy](#), we plan to transform our economic statistics over the coming years and to increase the robustness and quality of the UK economic statistics.

The Office for National Statistics (ONS) and the Bank of England (BoE) are working in partnership to deliver the UK’s enhanced financial accounts (flow of funds) initiative. An important part of this work is to develop “from-whom-to-whom” (W2W) estimates for financial account transactions and balance sheet levels.

We will then publish the counterparty relationships for each financial instrument rather than the total asset and/or liability position for each institutional sector in isolation. These data have been published annually since 2015.

All data are consistent with the ONS publications: [UK Economic Accounts 2019 Q2 \(UKEA\)](#) and the [UK National Accounts Blue Book 2019](#).

We have designed visualisations to help people understand this complex area. We also provide greater granularity by giving a breakdown of equity into listed and unlisted UK shares, other equity and investment fund shares.

We have highlighted other areas of development within the enhanced financial accounts initiative which will add further granularity and improve the quality and coverage of the flow of funds matrices in the future.

We will publish experimental data for the first time on 26 November 2019, incorporating regulatory and commercial information with the aim of incorporating them into the UK National Accounts from 2021 and beyond.

3 . Visualising flow of funds statistics

[In an article published in March 2016](#), the Office for National Statistics (ONS) introduced a new way to present flow of funds (FoF) statistics. Sankey diagrams were used to visualise the counterparty relationships between institutional sectors. These visualisations have a tooltip chart to show the underlying time series data for each interaction in the diagram and have been updated to include the latest data.

Figure 1: UK flow of funds Sankey diagram

Sector-to-sector interactions for financial balance sheets by financial instruments

Notes:

1. Separate non-money market funds (NMMF) data are available in the data tables that accompany this release.
2. Negative values cannot be displayed in the data visualisations and are set to zero.

Further explanation of the institutional sectors and financial instruments included in Figure 1 can be found in the [accompanying explanatory notes](#).

Interpreting a whom-to-whom matrix

In the national accounts, all financial instruments have an economic owner (the people or entities that are considered to hold the asset) and, with the exception of monetary gold, they all have counterparty relationships (the people or entities that are considered to hold the liability).

For example, when a private individual deposits cash in a bank account, the national accounts balance sheets record several things simultaneously:

- a decrease in the amount of cash the person holds as a financial asset
- an increase in the amount of cash the bank holds as a financial asset
- an increase in the amount of deposits the person holds as a financial asset
- an increase in the amount of deposits the bank holds as a financial liability

While the national accounts record the counterparties' transactions separately, the "from-whom-to-whom" (W2W) accounts link the asset and liability holders.

Figure 1 illustrates this example, where the private individual appears in the HH (households) sector on the right-hand side and the bank appears in the MFI (Monetary Financial Institutions) sector on the left. If you hover the mouse over the line connecting the two sectors, this shows the total amount of liabilities held by the MFI sector from the HH sector.

There are also bar charts embedded within the interactive, known as a tooltip, which show the underlying time series data of each thread. By hovering on the right-hand side of the interactive, we can see that in 2018, the total assets held by the household sector is £6,528 billion.

This year we have introduced a filter, whereby you can select which financial instrument to view. For example, by filtering "transferable deposits and other deposits" we can see that most of the deposits made to the MFI sector are made by entities outside of the UK.

4 . Changes to the flow of funds matrices

This update includes four additional quarters of data for the year 2018, as well as updating the time series with the newly published data consistent with the UK National Accounts, The Blue Book: 2019. Several other changes have been implemented within the matrices to improve on the published information.

This year we have introduced F.1 transactions (monetary gold and special drawing rights). Monetary gold is gold to which monetary authorities have title and which they hold as reserve assets. It includes gold bullion and unallocated gold accounts with non-residents that give title to claim the delivery of gold. Gold bullion is the only financial asset for which there is no counterpart liability.

Special drawing rights (SDRs) are international reserve assets created by the International Monetary Fund (IMF) which are allocated to its members to supplement existing reserve assets. SDRs are held exclusively by central banks and certain international agencies and are transferable among participants. They represent each holder's unconditional right to obtain other reserve assets, especially foreign exchange, from other IMF members.

We have introduced employee stock options (F.72) to complete F.7. Employee stock options are agreements made on a given date under which the employee has the right to purchase a given number of the employer's shares at a given price, either at a stated time or within a period immediately following the vesting date.

For completeness, we have also introduced F.8 transactions (other accounts receivable or payable) – financial claims arising from timing differences between distributive transactions or financial transactions on the secondary market and the corresponding payments. F.8 also includes trade credits and advances that arise when payment for goods or services is not made at the same time as the change in ownership of a good or provision of service. Because of quality issues in the counterpart information, only total assets and liabilities are presented for F.8 transactions, with the counterparts issued to the "unknown" sector.

In 2018, we included an additional breakdown of F.5 into listed shares (F.511), unlisted shares, (F.512) other equity (F.519) and investment funds (F.52). This year we have updated the methodology to apportion private non-financial corporation (PNFC) liabilities for listed shares, removing much of the unknown counterpart data, and proportionally allocating to sectors based on source data. Further detail can be found in the explanatory notes in [Section 8](#).

5 . Analysis of the flow of funds matrices

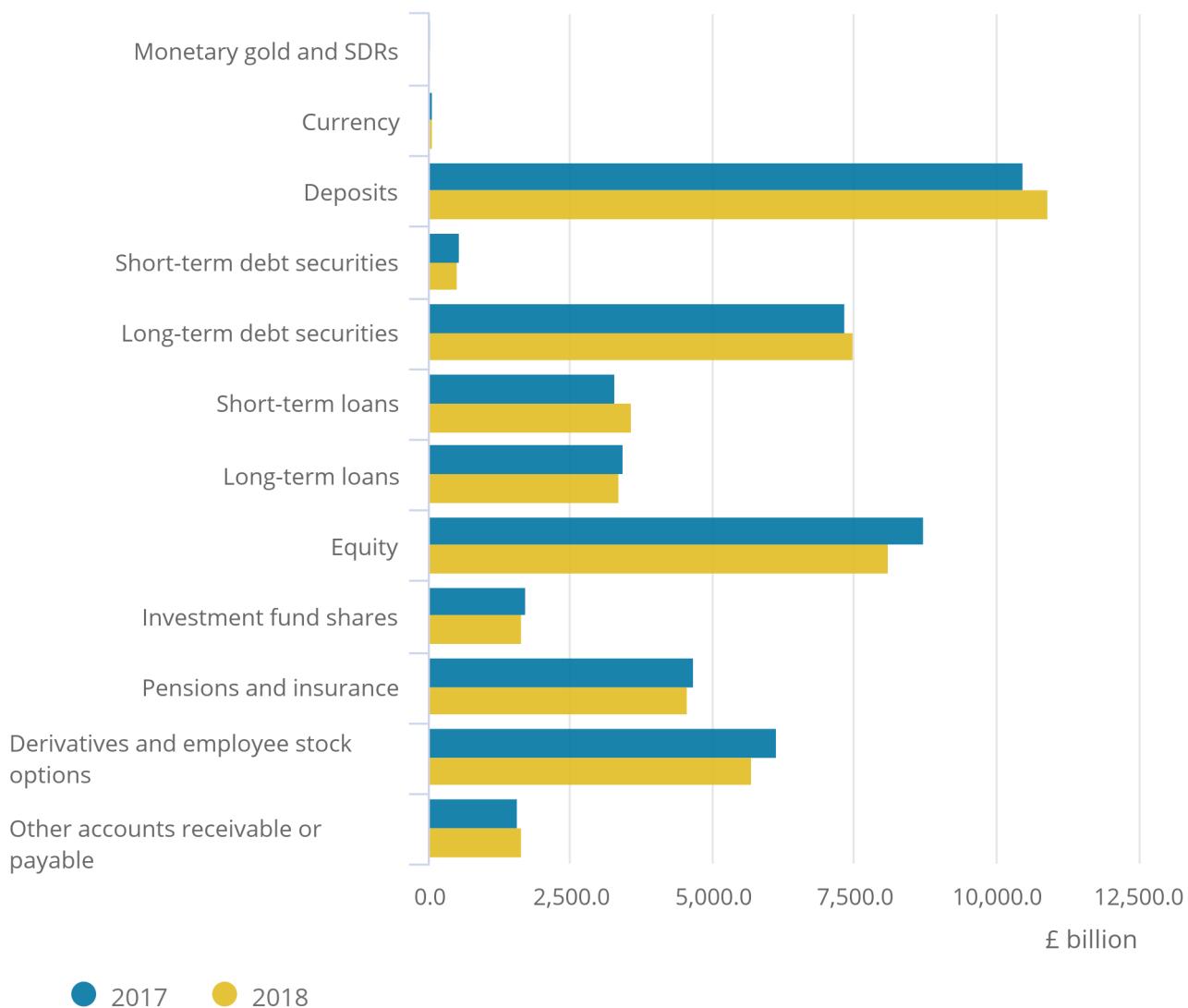
Between 2017 and 2018, total financial assets and liabilities experienced a small decrease at the total economy level of £332 billion, largely because of a fall of around £360 billion in listed shares and £405 billion in financial derivatives. Total deposits as well as short-term loans contributed the most to the value of net worth, providing a net increase of £447 billion and £283 billion respectively when compared with 2017.

Figure 2: Deposits continued to account for the largest proportion of the UK balance sheets (£10.9 trillion) in 2018

Changes to financial instruments in UK economy, 2017 to 2018

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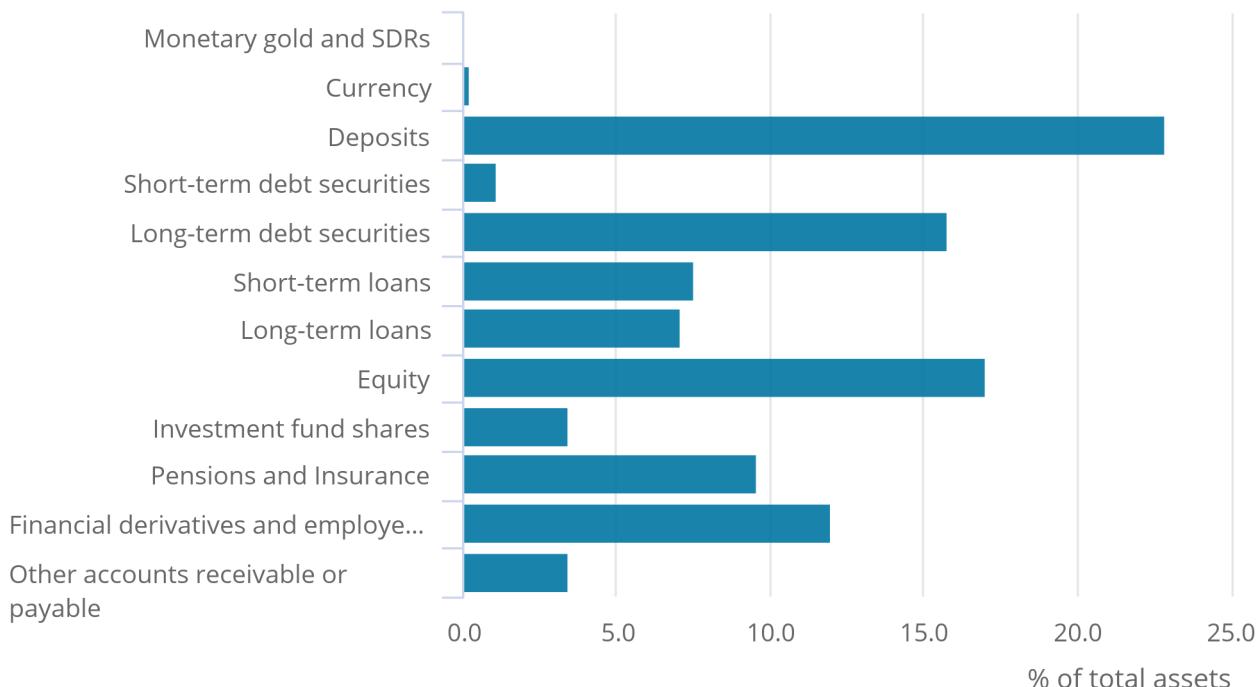
Source: Flow of funds, Office for National Statistics, 2019

Figure 3: Deposits makes up around one-quarter of the total economy of the UK balance sheets between 2017 and 2018

Financial instruments as a proportion of the UK economy, 2018

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Financial instruments as a proportion of the UK economy, 2018



Source: Flow of funds, Office for National Statistics, 2019

6 . Expansion of the financial subsectors

We are attempting to provide [separate balance sheet statistics](#) for each of the European System of Accounts 2010: ESA 2010 financial subsectors S.123 to S.127, which are presently being compiled at aggregate level. See Table 1.

Table 1: Financial corporations sector breakdown in the European System of Accounts 2010: ESA2010

Financial corporations sector and sub-sectors			S.
			12
Monetary financial institutions (MFIs)	Central Bank		S. 121
	Other monetary financial institutions	Deposit-taking corporations except the central bank	S. 122
		Money Market Funds	S. 123
Financial corporations except MFI and ICPF (OFIs)	Non-Money Market Investment Funds		S. 124
	Other financial intermediaries, except insurance corporations and pension funds		S. 125
	Financial auxilliaries		S. 126
	Captive financial institutions and money lenders		S. 127
Insurance corporations and pension funds (ICPF)	Insurance corporations		S. 128
	Pension funds		S. 129

Source: Office for National Statistics

In line with the enhanced financial accounts initiative, there has been an ongoing effort at the Office for National Statistics (ONS) to publish a series of S.123 to S.127 articles during 2018 and 2019. These would ultimately allow for the publication of a full set of [experimental whom-to-whom accounts](#) on 26 November 2019, with the aim of fully integrating the statistics into the UK National Accounts in 2021 and beyond.

7 . Further work

As part of the enhanced financial accounts initiative, we will continue to improve these from-whom-to-whom (W2W) statistics. We aim to continue to reduce the size of the unknown sector as a counterpart. Additionally, these matrices will continue to be updated with new data as they become available.

Any queries regarding this work or any comments should be emailed to flowoffundsdevelopment@ons.gov.uk.

8 . Related links

Explanatory notes:

- [Institutional sectors and financial instruments](#)
- [AF.1 Monetary gold and special drawing rights \(SDRs\)](#)
- [AF.2 Currency and deposits](#)
- [AF.3 Debt securities](#)
- [AF.4 Loans](#)
- [AF.5 Equity and investment fund shares or units](#)
- [AF.6 Pensions, insurance and standardised guarantee schemes](#)
- [AF.7 Financial derivatives and employee stock options](#)
- [AF.8 Other accounts receivable or payable](#)

[Flow of Funds background information](#)

Methodology: archived 6 January 2016

[Economic Statistics Transformation Programme enhanced financial accounts \(UK flow of funds\): 2019 experimental statistics matrix](#)

Article: released 26 November 2019

[Economic Statistics Transformation Programme: enhanced financial accounts \(UK flow of funds\): Banking Sector Transformation](#)

Article: released 5 September 2019

[Economic Statistics Transformation Programme: enhanced financial accounts \(UK flow of funds\): historic households and non-profit institutions serving households \(NPISH\) sectors data on loans and equity and investments](#)

Article: released 16 August 2019

[Economic Statistics Transformation Programme: enhanced financial accounts \(UK flow of funds\), Financial Services Survey 266, return of assets and liabilities: Quarter 4, 2018](#)

Article: released 14 June 2019

[Economic Statistics Transformation Programme: enhanced financial accounts \(UK flow of funds\) – Equifax geography data](#)

Article: released 30 January 2019

Further releases are available for 2018 on the ONS website.