Article

Economic Statistics Transformation Programme: Enhanced financial accounts (UK Flow of Funds) – using Thomson Reuters data to better understand the economy

Provides an update on the use of commercial data to improve the coverage, quality and granularity of financial statistics.

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1 . Introduction

This article sets out the progress we have made in assessing how data from Thomson Reuters could improve the coverage, quality and granularity of UK financial statistics, including producing from-whom-to-whom statistics. Thomson Reuters Financial and Risk provide news, information and analytics for the financial industry.

Thomson Reuters are providing Office for National Statistics (ONS) with data relating to investment in securities. Our initial analysis of this data has focused largely on the data for listed ordinary shares, which includes information on both investment and issuance. In this article we explain where we could potentially use this data to augment, complement or replace our financial account data for listed shares within the UK National Accounts, and what further work is required to make this feasible.

This article gives an early view of some new experimental balance sheet data for UK-issued listed shares and compare this with the existing UK National Accounts data. However, users should be aware that this new data may well change substantially as we further investigate the source data and transform it onto a more complete UK National Accounts basis, with a breakdown of UK and Rest of the world ownership.

2 . Background

We have ambitious plans to transform our statistics, informed by our Economic Statistics and Analysis Strategy, and with the aim of increasing the robustness and quality of UK economic statistics. Working in partnership with the Bank of England and the Financial Conduct Authority, one element of our transformation work is the development of Enhanced Financial Accounts (EFA). The main aims of the EFA initiative are to improve the coverage, quality and granularity of UK financial statistics. In particular, the initiative aims to produce more detailed "Flow of Funds" statistics to meet evolving user needs. This includes producing from-whom-to-whom statistics for elements of the UK National Accounts and identifying the counterparty information for financial transactions. From-whom-to-whom statistics identify the financial transactions and financial balances of each sector of the economy with each other sector of the economy.

One avenue for these improvements is using data obtained from commercial sources, referred to as commercial data. The benefits of commercial data over traditional surveys can include the potential for:

- reduced burden on households and businesses

- increased volumes of data that provide the potential for greater granularity

- increased flexibility to undertake wider analytics to meet evolving requirements

There are also challenges from using these data, including:

- aligning data sources with UK National Accounts concepts when compared to survey data

- gaps in the coverage of commercial data may be harder to identify than through surveys

Financial accounts data on securities

Financial accounts data on securities is one of the areas of the UK National Accounts where we are investigating the use of commercial data. This covers debt securities, investment fund shares or units, and equity.

In the European System of Accounts 2010: ESA 2010 framework, debt securities are defined as financial instruments serving as evidence of debt, the ownership of which can be readily transferred from one owner to another. They are divided between long-term and short-term securities based on their original maturity: that is the length of time from their issue date to the date at which they mature. Those with an original maturity of one year or less are short-term debt securities; those with an original maturity greater than one year, or of no stated maturity, are long-term debt securities.

Short-term debt securities include commercial paper, certificates of deposit, and treasury bills. Long-term debt securities include corporate bonds, gilts, and non-participating preference shares.

The shares or units in an investment fund are designated as shares if the fund has a corporate structure, otherwise they are known as units. Investment funds include investment trusts, unit trusts, open-ended investment companies (OEICs), real estate investment funds, exchange traded funds, hedge funds, and private equity funds. Investment fund shares may be listed or unlisted.

The European System of Accounts 2010: ESA 2010 framework defines equity as "a financial asset that is a claim on the residual value of a corporation, after all other claims have been met", and explains that "ownership of equity in legal entities is usually evidenced by shares, stocks, depository receipts, participations, or similar documents". There are three types of equity in the UK National Accounts:

- listed equity is equity issued as shares that are traded on an exchange;

- unlisted equity is equity issued as shares that are not traded on an exchange; and

- other equity is a residual category and includes, for example, the equity in unlimited partnerships and cooperative society stocks and shares

Investment income on securities

In addition to financial account data on the levels of and transactions in the securities themselves, we also want to measure the investment income paid by the issuers to the holders of the securities. In the case of debt securities, this income is interest and for equities it is dividends. For investment funds, it is investment income attributable to collective investment fund shareholders; this consists of both dividends paid out to the shareholders and retained earnings reinvested in the fund.

For bills and similar short-term debt instruments, the difference between the face value and the price paid at the time of issue is the total amount of interest paid over the life of the bill.

For zero-coupon bonds, the interest is similar to that on short-term bills, in that it is the difference between the issue price and the redemption price. This interest is distributed evenly over the years to maturity of the bond. As this interest accrues, it is considered to be reinvested in the bond by its holder. It is therefore treated as an acquisition of more bond by the holder and as a further issue of more bond by the issuer: in effect, the volume of the original bond increases as the interest accrues. This means that the accrued interest needs to feed into the calculation of flows and levels in the financial account.

For most other bonds, the interest has two components. The first component is the amount of money income receivable from coupon payments each period. The second component is the amount of interest accruing that is attributable to the difference between the issue price and redemption price; as with interest on zero coupon bonds, this is treated both as investment income and as an acquisition of more bond by the holder and a further issue of more bond by the issuer.

Provision of commercial data for securities

To improve the data on securities along with other aspects of the financial accounts, we carried out a market engagement exercise and entered an open tender process towards gathering commercial data in these areas. For most of the securities data required, we selected Thomson Reuters as our preferred service supplier and have since been working with Thomson Reuters in helping them meet our requirements.

Our initial analysis of the data supplied has focused largely on their data for listed ordinary shares, which falls under the European System of Accounts 2010: ESA 2010 category of listed shares. What are referred to in the UK as ordinary shares are called common stocks in the United States. For consistency in their own data, Thomson Reuters use the term common stocks for ordinary shares or common stocks wherever they are issued.

In this article, we look principally at data on listed shares. Current data on listed shares in the financial account is predominantly provided by five existing data sources:

- London stock exchange

- ONS Ownership of UK quoted shares

- ONS Mergers and Acquisitions data

- ONS Financial Inquiries

- Bank of England surveys

These data sources capture some aspects of listed shares well, however, they contain little from-whom-to-whom data for UK issued shares. There is potential for the Thomson Reuters data to provide this.

3 . Composition of data from Thomson Reuters

Background

Working in partnership with Thomson Reuters, we expect to receive data on the following financial instruments and transactions:

- listed ordinary shares (common stocks)

- investment funds

- debt securities

- mergers and acquisitions

In this article, we focus on the financial transaction where our work is most progressed: Common Stocks. Thomson Reuters' Common Stocks data are provided for each quarter. Each data point relates to a single security, as described by an International Securities Identification Number (ISIN), and describes issuance and ownership of that security at the end of the quarter, together with transactions in that security during the quarter. We note the following features:

- the data include securities issued by companies domiciled in the UK with ownership by companies domiciled in the UK or in the Rest of the world

- the data include securities issued by companies domiciled in the Rest of the world where there is ownership by companies domiciled in the UK

- the data used in our initial analysis only include known ownership of securities, that is where the details of the owner are known.

We expect to receive historical data from Thomson Reuters in the future which will cover back periods. However, our initial analysis has been limited to data between Quarter 2 (Apr to June) 2016 and Quarter 1 (Jan to Mar) 2018.

Structure of data

Thomson Reuters deliver their data for listed shares split by issuance within the UK and issuance from the Rest of the world. There is a further split based on whether the owner is based in the UK or the Rest of world. Each of the data entries represent a distinct issuance-ownership relationship (IOR) for UK-listed shares. The information provided for each of these IORs can be split into general issuance information and quarterly information.

General information

This is information on the issuers and owners in any given issuance- ownership relationship (IOR). This information is static across time for each of the data points. Should there be a change in the IOR this would be recorded as a new data entry under that issuance. All data entries comprise:

- the unique ISIN identification of the issuance which, along with other international identifications, can be used for cross referencing

- the issuing entity and information on its domicile and incorporation

- the share owning entity and their domicile information if Thomson Reuters has been able to identify this relationship

- an industry description for each issuance that could be used for mapping to the UK National Accounts institutional sectors

- similar to the industry description for the issuance, Thomson Reuters provide a category description for the industry of the share owner

Quarterly information

Information in this category is fluid across time. Thomson Reuters' quarterly data is provided as an eight-quarter rolling update on these values as their knowledge of these develop. They relate to the economic metrics of the issuance- ownership relationship (IOR). All monetary values here provided by Thomson Reuters are provided in US dollars, and as such require currency conversion to pounds sterling before they are compared to UK National Accounts data. The following data have been utilised in our analysis:

- market price of the share as per last update from Thomson Reuters (by issuance)

- number of shares held (per IOR)

- increases and decreases in number of shares held (per IOR)

- Thomson Reuters reported value of the shares held by this IOR

- the value of the change in shares in this quarter

- market capitalisation, the total market value of all of a company's outstanding shares

Not all the information is available for every data entry. Aggregations and inspections of total coverage need to be caveated by delivered data being based on the best knowledge of Thomson Reuters, and driven by their knowledge of ownership of any issuance; they will not always be in possession of the full picture.

4 . Assessing data from Thomson Reuters against UK National Account requirements

Part of the Enhanced Financial Accounts (Flow of Funds) development work is to improve the quality, coverage and granularity of the UK National Accounts including producing from-whom-to-whom data for the financial account. Our intended use of the commercial data sources (including Thomson Reuters) falls into three broad categories:

- replacing: we will look to replace existing sources within the UK National Accounts, where we can demonstrate that the commercial data are of an appropriate quality to do so

- augmenting: we will look to use the commercial data sources to augment existing sources; for example, this could be through producing from-whom-to-whom statistics for data that are available from a different source, providing a counterparty relationship dataset or addressing existing gaps in coverage

- complementing: we will look to produce analysis that furthers the aims of EFA and complements the financial account but may not feed directly into the UK National Accounts; for example, this could include geographic information which may not fall into the core UK National Accounts but alongside this data would give a greater insight into the UK financial market

To potentially use the data from Thomson Reuters to populate the financial account in the UK National Accounts, we must be able to align to all the relevant national accounts concepts within the European System of Accounts 2010: ESA 2010 framework. In this section, we consider each of these elements in turn.

Population coverage

To assess the data from Thomson Reuters for use in the UK National Accounts, it is important to understand how comprehensive it is in its coverage of the listed equity market. We are investigating the coverage by comparing the data from Thomson Reuters with existing sources of data that cover the same market.

Within the current UK National Accounts, listed shares are mainly derived from London stock exchange data, ONS Ownership of UK quoted shares, ONS Mergers and Acquisitions data, ONS Financial Inquiries, and Bank of England surveys. ONS' Mergers and Acquisitions data has recently been improved by using commercial data to identify deals.

We are currently comparing these sources with the data from Thomson Reuters, with the aim of answering the following two questions:

- how much of the listed shares market does the data from Thomson Reuters cover?

- how much data already in the UK National Accounts are also included in the data from Thomson Reuters?

This ongoing work involves comparing both the total values and the details of specific transactions in the data from Thomson Reuters with the other datasets.

Levels

The financial account requires the value of outstanding issuance and holdings of listed shares at the end of each quarterly period.

The quarterly information from Thomson Reuters supplies the data to produce levels of both issuance and holdings for ordinary shares. Combining data for numbers of shares with the pricing data enables these estimates to be calculated at market prices.

Flows

The financial account requires financial transactions in listed shares during each quarterly period.

The quarterly information from Thomson Reuters supplies data for acquisitions and disposals of ordinary shares in each quarter. This enables the calculation of financial transactions in ordinary shares in each such period.

Revaluations

The financial account requires changes in the value of listed shares within each quarterly period, which can include things such as currency changes and changes in share value.

The general information from Thomson Reuters includes the currency of denomination for each issuance and the quarterly information supplies the pricing data. This enables the calculation of the revaluations data required.

Other changes in volume

The financial account requires data on one-off events that may occur during a quarterly period causing a change in the balance of listed shares. Examples include a reclassification of a company between institutional sectors (institutional sectors are discussed in Section 5) or a catastrophic event.

We are working with Thomson Reuters to determine what data is available to help derive this.

Income from investments

The UK National Accounts require data on income from investments. For listed shares, this income is in the form of dividends paid to shareholders.

Data on dividends will be supplied to ONS by Thomson Reuters in due course. This will be combined with the estimates of the levels of ordinary share holdings to calculate dividend receipts.

Historical data

To meet user needs, we aim to create time series back to at least 1987. We have agreed with Thomson Reuters that they will provide listed shares data from 1997. However, as yet we do not know the quality of the earlier data.

To investigate the possibility of integrating historical data from Thomson Reuters into the financial account, we will need to examine methods to "back-cast" the provided data back to 1987. We plan further work to assess the capacity for doing this, which could use tools recently developed under the Enhanced Financial Accounts project.

Timeliness

The financial account requires data to be available in a timely manner for each quarterly period. Thomson Reuters data are maintained on a live basis, but there is a lag in data being received by them from their sources, because of the nature of the data. Therefore, there may be revisions to data from previous quarters.

Should we wish to use data from Thomson Reuters within the financial account, more work is needed to assess the scale of these revisions over time.

5 . Aligning data from Thomson Reuters to UK National Account concepts

To further determine how we can use the data from Thomson Reuters in the financial account, we also must be able to align the data with UK National Accounts concepts and taxonomies, as per the European System of Accounts 2010: ESA 2010 framework. Our work to do this has initially entailed allocating each issuer and owner to the correct sector of the economy, known as sectorisation. Once completed we have then compared the data with the data currently in the national accounts to identify where we have differences in the datasets.

Sectorisation

To integrate the data from Thomson Reuters, we need to assign each issuer and investor to the institutional sectors used in the UK National Accounts and defined in the European System of Accounts 2010: ESA 2010 framework. Thomson Reuters have provided industry descriptions for both the owner and issuer within the received datasets. This has then been mapped to relevant sectors within the UK National Accounts. Although this initial work can be seen in Annex A, further mapping work is required to refine the sectorisation allocation.

Comparison Work

As part of our initial analysis, we have looked at how the data provided in the Common Stocks data compares to the data already within the national accounts financial accounts. Figure 1 below shows a comparison of the Common Stocks data supplied by Thomson Reuters compared to the national accounts data for UK Listed Shares. The data supplied is based on known ownership collected by Thomson Reuters.

Figure 1: Comparison of raw Common Stock Thomson Reuters data to National Accounts data for UK Listed Shares

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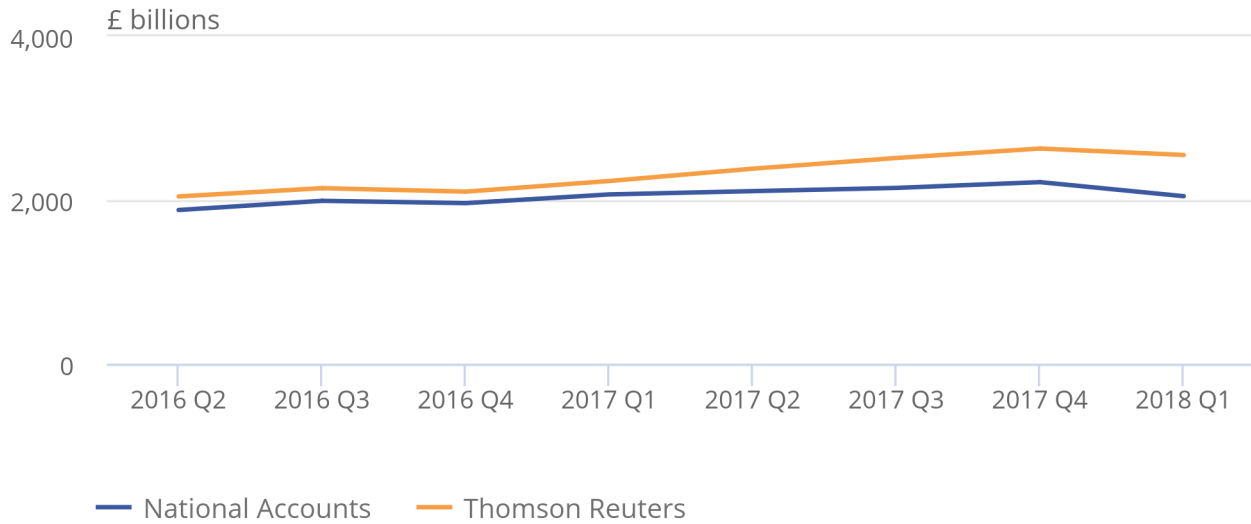
Source: Thomson Reuters and UK National Accounts

Notes:

1. Q1 refers to Quarter 1 (Jan to Mar)
   Q2 refers to Quarter 2 (Apr to June)
   Q3 refers to Quarter 3 (July to Sept)
   Q4 refers to Quarter 4 (Oct to Dec)

Figure 1 compares the Thomson Reuters data with the UK National Accounts data. Further investigation work is required to understand the differences, which will include looking at comparability with national accounts concepts and coverage.

Figures 2, 3, 4 and 5 show the data in Figure 1 split down into the various sectors of UK corporations.

Figure 2: Listed share liabilities of UK Non-Financial Corporations

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£ billions

National Accounts — Thomson Reuters

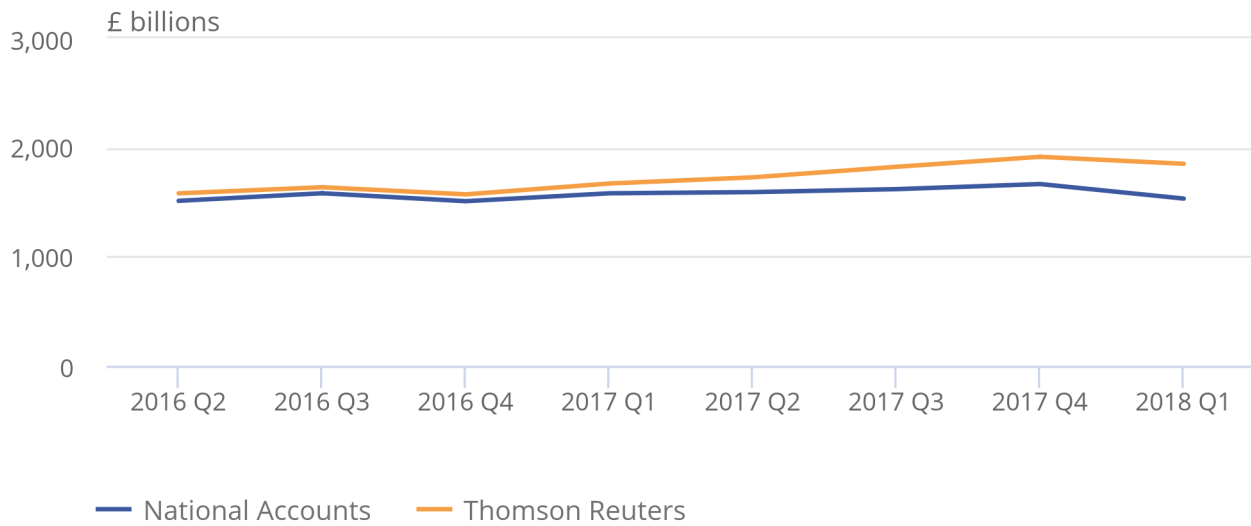**Source: Thomson Reuters and UK National Accounts**

Notes:

1. Q1 refers to Quarter 1 (Jan to Mar)
   Q2 refers to Quarter 2 (Apr to June)
   Q3 refers to Quarter 3 (July to Sept)
   Q4 refers to Quarter 4 (Oct to Dec)

Figure 3: Listed share liabilities of UK Monetary Financial Institutions

£ billions

[Line chart showing two series, National Accounts (blue) and Thomson Reuters (orange), from 2016 Q2 to 2018 Q1. The y-axis is in £ billions ranging from 0.0 to 10.0. The Thomson Reuters line stays around 7.5 to 9.5. The National Accounts line stays near 1.0 or below.]
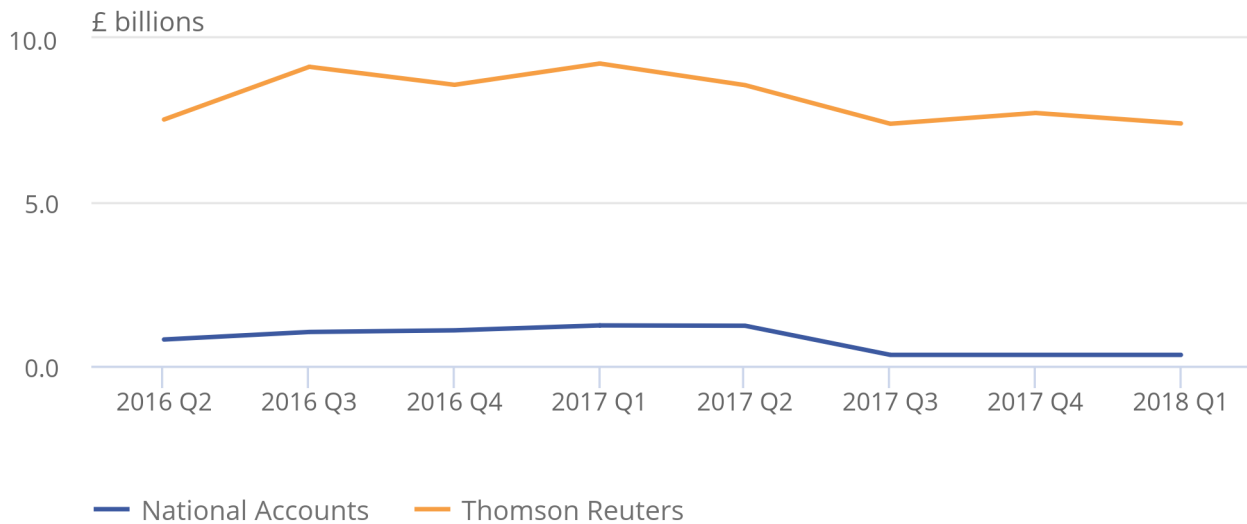
— National Accounts   — Thomson Reuters

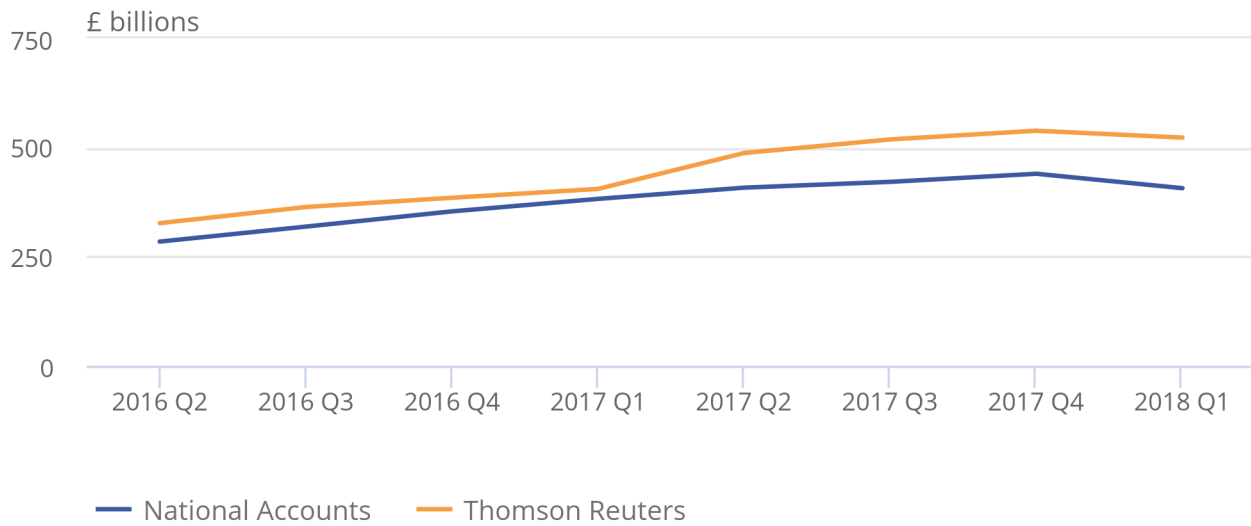**Source: Thomson Reuters and UK National Accounts**

Notes:

1. Q1 refers to Quarter 1 (Jan to Mar)
   Q2 refers to Quarter 2 (Apr to June)
   Q3 refers to Quarter 3 (July to Sept)
   Q4 refers to Quarter 4 (Oct to Dec)

The monetary financial institutions (MFI) sector is mostly comprised of banks. However, the listed companies at the top of the major UK banking groups are bank holding companies that do not actually have banking licences themselves: it is their major subsidiaries who have the banking licences. In national accounts, the bank holding companies are classified as Other financial institutions (OFIs), with their banking subsidiaries being classified as MFIs. As a result, in UK National Accounts, nearly all the share liabilities of MFIs are in unlisted shares. The Thomson Reuters data appears to be including some listed shares which are not classified to the UK MFI sector in the UK National Accounts; this will be investigated.

Figure 4: Listed share liabilities of Other Financial Institutions

Figure 4: Listed share liabilities of Other Financial Institutions

£ billions

Source: Thomson Reuters and UK National Accounts

Notes:

1. Q1 refers to Quarter 1 (Jan to Mar)
   Q2 refers to Quarter 2 (Apr to June)
   Q3 refers to Quarter 3 (July to Sept)
   Q4 refers to Quarter 4 (Oct to Dec)

Figure 5: Listed share liabilities of UK Insurance Corporations and Pension Funds

Figure 5: Listed share liabilities of UK Insurance Corporations and Pension Funds

£ billions

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150 ─

100 ─

 50 ─

  0 ─
     2016 Q2   2016 Q3   2016 Q4   2017 Q1   2017 Q2   2017 Q3   2017 Q4   2018 Q1
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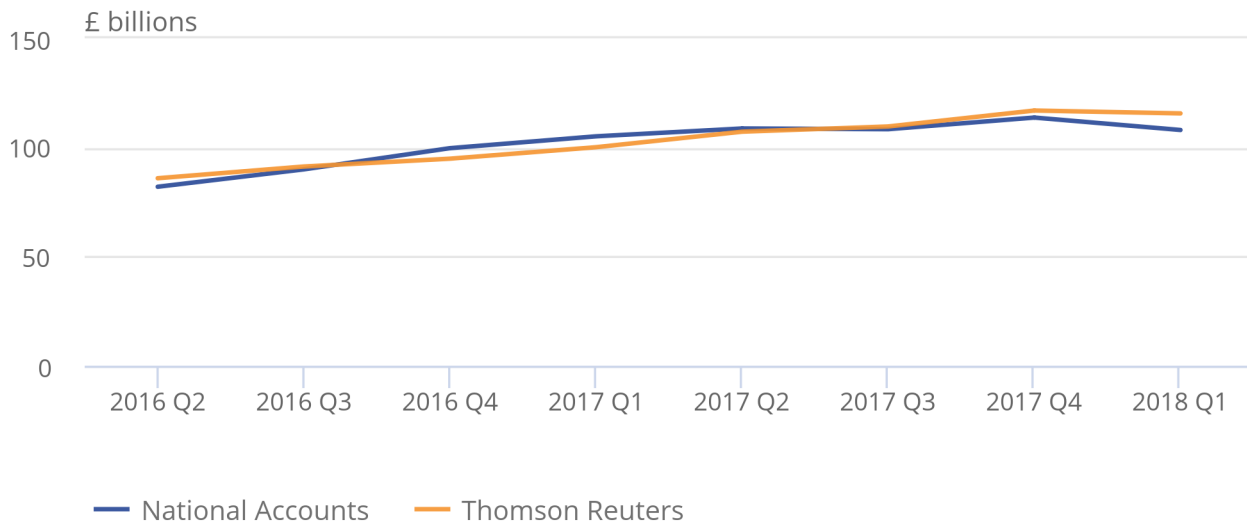━━ National Accounts   ━━ Thomson Reuters

Source: Thomson Reuters and UK National Accounts

Notes:

1. Q1 refers to Quarter 1 (Jan to Mar)
   Q2 refers to Quarter 2 (Apr to June)
   Q3 refers to Quarter 3 (July to Sept)
   Q4 refers to Quarter 4 (Oct to Dec)

Over the next few months, we will be working to identify coverage issues as well as to refine the current sectorisation of the data. We will also be investigating the data from Thomson Reuters for Rest of the world-issued listed shares.

When shares are held by investment funds, the same shares may be recorded by Thomson Reuters as being owned by both a "child" fund and a "parent" fund investing in that child fund. This dual recording enables the data to serve a variety of user needs. However, to meet national accounts requirements, we need to allocate this share ownership to solely the "child" fund. (We will also be recording the investment of the "parent" fund in the investment fund shares or units issued by the "child" fund.) In the future, we will further investigate how to transform the source data onto the national accounts basis.

6 . Initial from-whom-to-whom analysis of data from Thomson Reuters

Table 1 shows the total levels of investment (from the UK and Rest of the world) into UK-listed shares, as at the end of the first quarter of 2018 shown within the Thomson Reuters data. The table only provides insight into the investments that are known at the end of the quarter. These figures are likely to be revised as time progresses and Thomson Reuters improve their knowledge of issuance-ownership relationships (IOR) and thus can provide increasingly accurate results.

Table 1: Recorded investment in listed equity, by issuer and owner sector, Quarter 1 (Jan to Mar) 2018

					Issuer sector (UK only)		
		Non-financial corporations	Monetary financial institutions	Other financial institutions	Insurance corporations and pension funds	Unknown	Total
Owner sector (UK and Rest of the world)	Non-financial corporations	12032	61	1048	155	10	13306
	Monetary financial institutions	668924	18822	146326	49839	3984	887895
	Other financial institutions	1148029	21171	305804	72580	5662	1553247
	Insurance corporations and pension funds	63484	136	11896	3995	325	79836
	Households	61064	440	35834	1975	95	99408
	Government	4	7	22992	0	0	23003
	Total	1953537	40637	523899	128544	10076	2656694

Source: Office for National Statistics

Notes: 1. Values in £ millions

In the ownership data, there are issues with aligning the domicile data for some owners with the national accounts definition of residency. As a result, the owners have not been split between UK owners and non-UK owners. The owners have been split by sector but ignoring whether they are resident in the UK or in the Rest of the world (RoW). So, for example, the ownership by non-financial corporations (NFCs) includes ownership by both NFCs resident in the UK and NFCs resident in the Rest of the world. The domicile data is being investigated in co-operation with Thomson Reuters. Note – the issuer sectors in the table contain only UK resident issuers.

In the table, the majority of investment into UK listed shares is by other financial institutions (OFIs) in the UK or RoW, with 58.5% of total investment. 73.9% of this investment by OFIs is in NFCs' shares and 19.7% is investment in OFIs' shares.

Monetary financial institutions (MFIs) in the UK or RoW are shown as owning 33.4% of all UK listed shares. 75.3% of the investment shown for MFIs is in NFCs' shares and 16.5% is in OFIs' shares. NFCs in the UK or RoW are shown as owning only 0.5% of all UK listed shares. The vast majority of the shares held by the NFC sector are unlisted rather than listed: these are mostly the shares in companies that are their subsidiaries and associates.

There is a relatively low number of unknowns on the issuance side, and none on the ownership side. This can be explained by the focus Thomson Reuters has on the IOR, with them only reporting data points where they know the IOR. This has the consequence that there are likely to be issues with the values and undercoverage resulting from the from-whom-to-whom relationships that are unable to be identified by Thomson Reuters.

The Thomson Reuters data shows listed shares issued by non-financial corporations, other financial institutions, and insurance corporations and pension funds (ICPFs) as respectively 73.5%, 19.7%, and 4.8% of total UK listed shares issued. This compares with the corresponding proportions in the national accounts data of 76.4%, 18.5% and 5.1% respectively.

7 . Summary and next steps

In this article, we have given an overview of the scope of the UK National Accounts data that we would like to derive from the Thomson Reuters data. We have also explored our initial experimental findings from investigating the data for listed ordinary shares.

Our next steps in working with the data from Thomson Reuters will be:

- identifying and resolving coverage issues

- analysing the data for UK ownership of listed shares issued by the Rest of the world

- addressing the recording of ownership by "parent" funds

- addressing differences in the domicile data of some owners from the national accounts definition of residency

- assessing how many of the requirements for revaluations, other changes in volume, and historical information could be satisfied by the data

- assessing how many of the requirements for investment income on the securities could be satisfied by the data

- analysing further Thomson Reuters datasets

Taking a broader look across the Enhanced Financial Accounts (EFA), during 2018 and into 2019 we will be sharing the outcomes of our research and development into using new and improved existing data sources to enhance the financial account. This will include:

- developing pre-1987 historic estimates of elements of the financial account

- work to improve measurement of financial activity in the Monetary Financial Institutions sector

- use of Bank for International Settlements data for international lending

Towards the end of 2019, we will publish experimental statistics to provide a cohesive picture of the accounts as part of the annual update to the Flow of Funds Matrices. In parallel, we will continue to publish analytical work, including updated visualisations of the data and examples of how the data could be used.

We welcome feedback on our plans and work to date. Please email FlowOfFundsDevelopment@ons.gov.uk with any feedback or questions regarding this article.

8 . Acknowledgements

The author would like to thank the following people for their contributions to this article: Sarah Adams, Richard Campbell, David Cobbledick, Phillip Davies, Tomos Davies, Laurence Day, Khloe Evans, Oliver Haines, Richard McCrae, Keith Miller, David Summers, Simen Svenkerud, Abbe Williams.

9 . Links to related statistics

Flow of Funds archived background information

Explanatory notes:

- Institutional sectors and financial instruments

- 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.71 Financial derivatives

16 July 2018 – Economics Statistics Transformation Programme: enhanced financial accounts (UK flow of funds) – Shadow banking – S.124 non-money market investment funds

3 July 2018 – Economic Statistics Transformation Programme: enhanced financial accounts (UK flow of funds) – using Beauhurst data to better understand the economy

2 July 2018 – Economic Statistics Transformation Programme: enhanced financial accounts (UK flows of funds) – Financial Services Survey 266 – quarterly return of assets and liabilities

26 June 2018 – Economic Statistics Transformation Programme: enhanced financial accounts (UK flow of funds) – enhancing the understanding of UK household finance

8 May 2018 – Economic Statistics Transformation Programme: enhanced financial accounts (UK flow of funds) – shadow banking, money market funds

2 May 2018 – [Economic Statistics Transformation Programme: enhanced financial accounts (UK flow of funds) – using Equifax data to better understand the economy](#)

1 May 2018 – [Economic Statistics Transformation Programme: enhanced financial accounts (UK flow of funds) – shadow banking introductory article](#)

30 April 2018 – [Experimental financial statistics for insurance using Solvency II regulatory data – enhanced financial accounts (UK flow of funds)](#)

15 February 2018 – [Economic Statistics Transformation Programme: enhanced financial accounts (UK flow of funds) – historic households and non-profit institutions serving households (NPISH) sectors data on currency and deposits](#)

23 January 2018 – [Economic Review: January 2018 – Economic Statistics Transformation Programme: a flow of funds approach to understanding quantitative easing](#)

17 November 2017 – [Economic Statistics Transformation Programme: enhanced financial accounts (UK flow of funds) – 2017 matrix update](#)

23 October 2017 – [Economic Statistics Transformation Programme: enhanced financial accounts (UK flow of funds) – progress on commercial data use](#)

25 September 2017 – [Economic Statistics Transformation Programme: enhanced financial accounts (UK flow of funds) reconciling sources of historic data for households and the non-profit institutions serving households (NPISH) sectors](#)

12 September 2017 – [Economic Statistics Transformation Programme: Enhanced financial accounts (UK flow of funds) – A flow of funds approach to understanding financial crises](#)

31 August 2017 – [Economic Statistics Transformation Programme: enhanced financial accounts (UK flow of funds) estimating the value of other accounts receivable or payable in the UK economy](#)

21 July 2017 – [Economic Statistics Transformation Programme: enhanced financial accounts (UK flow of funds) improving the measurement of company quarterly profits](#)

3 July 2017 - [Economic Statistics Transformation Programme: Enhanced financial accounts (UK flow of funds) progress on financial derivatives data](#)

5 June 2017 – [National Accounts articles: The UK Enhanced Financial Accounts; the introduction of the new securities dealers survey data and expansion of financial sub-sector detail](#)

31 May 2017 – [Economic Statistics Transformation Programme: Enhanced financial accounts (UK flow of funds) commercial data use](#)

31 May 2017 – [Economic Statistics Transformation Programme: Enhanced financial accounts (UK flow of funds) improving the economic sector breakdown](#)

27 April 2017 – [Economic Statistics Transformation Programme: Enhanced financial accounts (UK flow of funds) employee stock options](#)

24 April 2017 – [Financial intermediation services indirectly measured (FISIM) in the UK revisited](#)

29 March 2017 – [Economic Statistics Transformation Programme: Enhanced financial accounts (UK flow of funds) Government tables for the special data dissemination standards plus (SDDS plus)](#)

30 January 2017 – [The UK Enhanced Financial Accounts: changes to defined contribution pension fund estimates in the national accounts; part 2 – the data](#)

16 January 2017 – [The UK Enhanced Financial Accounts: changes to defined contribution pension fund estimates in the national accounts; part 1 – the methodology](#)

8 August 2016 – [Economic Statistics Transformation Programme: UK flow of funds experimental balance sheet statistics, 1997 to 2015](#)

14 July 2016 – [Economic Statistics Transformation Programme: Flow of funds - the international context](#)

14 July 2016 – [Economic Statistics Transformation Programme: Developing the enhanced financial accounts (UK Flow of Funds)](#)

10 March 2016 – [Identifying Sectoral Interconnectedness in the UK Economy](#)

24 February 2016 – [Improvements to the Sector & Financial Accounts](#)

12 January 2016 – [Historical Estimates of Financial Accounts & Balance Sheets](#)

6 November 2015 – [Comprehensive Review of the UK Financial Accounts](#)

13 July 2015 – [Introduction progress and future work](#)

10 . Annex A - Mapping of industry descriptions to UK National Account institutional sectors

Table 2: Mapping industry descriptions to the UK National Accounts sectors

Description	Broad Sector Allocation
Banks (Major Regional)	Monetary Financial Institutions (MFIs)
Consumer Finance	Monetary Financial Institutions (MFIs)
Financial (Diversified)	Other Financial Intermediaries (OFIs)
Holding Companies	Other Financial Intermediaries (OFIs)
Insurance (Life / Health)	Insurance Corporations & Pension Funds (ICPFs)
Insurance (Multi-Line)	Insurance Corporations & Pension Funds (ICPFs)
Insurance (Property-Casulalty)	Insurance Corporations & Pension Funds (ICPFs)
Insurance Brokers	Other Financial Intermediaries (OFIs)
Investment Banking / Brokerage	Other Financial Intermediaries (OFIs)
Investment Management	Other Financial Intermediaries (OFIs)
Investment Trust	Other Financial Intermediaries (OFIs)
Multi-Industry	Unknown
Mutual Funds	Other Financial Intermediaries (OFIs)
Bank and Trust	Monetary Financial Institutions (MFIs)
Endowment Fund	Other Financial Intermediaries (OFIs)
Government Agency	Government
Hedge Fund	Other Financial Intermediaries (OFIs)
Individual Investor	Households
Insurance Company	Insurance Corporations & Pension Funds (ICPFs)
Investment Advisor	Other Financial Intermediaries (OFIs)
Investment Advisor / Hedge Fund	Other Financial Intermediaries (OFIs)
Pension Fund	Insurance Corporations & Pension Funds (ICPFs)
Private Equity	Other Financial Intermediaries (OFIs)
Venture Capital	Other Financial Intermediaries (OFIs)
Sovereign Wealth Fund	Other Financial Intermediaries (OFIs)
Pension Fund Portfolio	Insurance Corporations & Pension Funds (ICPFs)
Hedge Fund Portfolio	Other Financial Intermediaries (OFIs)
All other descriptions	Non-Financial Corporations (NFCs)

Source: Office for National Statistics