Article

Economic Statistics Transformation Programme: enhanced financial accounts (UK flow of funds) – using Beauhurst 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 Beauhurst, a London-based company that specialises in undertaking research on start-ups and private companies, could improve the coverage, quality and granularity of UK financial statistics, including producing from-whom-to-whom statistics that show how money moves in, around and out of the UK economy.

The data from Beauhurst cover investment into and issuance of unlisted equity, that is, shares not listed on an exchange. Here we explain where we could potentially use them to augment and complement our financial account data within the UK National Accounts and what we need to do to make this happen.

2 . Background

We have ambitious plans to transform our statistics over the coming years, 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 (BoE) and the Financial Conduct Authority (FCA), 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 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 each financial transaction. In simple terms, this can be thought of as improving the picture of how money moves in, around and out of the UK economy and where areas of risk could be building up.

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 include the potential for:

- reduced burden on households and businesses

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

There are also challenges from using these data, including:

- the potential for reduced alignment with UK National Accounts concepts when compared with survey data

- gaps in the coverage of commercial data may be harder to identify than in a survey

One financial transaction covered in our financial account data within the UK National Accounts is equity. To give some background, 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." Examples of equity include capital shares and dividend shares, and an example of a corporation issuing equity is through an initial public offering (IPO). There are three types of equity in the 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

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

In this article we look at improving data on the second of these, unlisted equity. Current data on unlisted equity in the financial account are provided predominantly by three existing Office for National Statistics (ONS) data sources:

- mergers and acquisitions data

- the Foreign Direct Investment (FDI) Survey

- the Financial Inquiries suite of surveys

These data sources capture some aspects of unlisted equity well, with the first two sources providing from-whom-to-whom data. However, the Financial Inquiries surveys do not provide from-whom-to-whom data. There is potential for commercial data to provide this.

We are also aware that these sources have not provided historically strong coverage of investment by individuals (who fall into the households institutional sector in the UK National Accounts) into unlisted equity. Again, there is potential to improve coverage of this area using commercial data.

Furthermore, data in the UK National Accounts relating to investment from the rest of the world into UK unlisted equity are currently limited predominantly to foreign direct investment (FDI). FDI refers to cross-border investments made by residents and businesses from one country into another, with the aim of establishing a lasting interest in the country receiving investment. Historically, it has proven difficult to measure the portfolio investment (that is, non-direct investment) from the rest of the world into UK unlisted equity. There is also potential for commercial data to address this.

We carried out market engagement to understand the availability of commercial data to improve our coverage of unlisted equity and entered an open tender process to obtain these data. Following this, we selected Beauhurst as our preferred service supplier for these data. Beauhurst is a London-based company that specialises in undertaking research on start-ups and private companies.

We gained access to data from Beauhurst's database in February 2018 and have since worked with them to understand the dataset and develop methods to interpret it.

3 . Composition of data from Beauhurst

Background

Beauhurst obtain their data from publicly-available sources. They use Companies House filings to identify transactions in unlisted equity and supplement this information with data taken from press releases and websites. They use these data to construct their UK start-up and scale-up database, from which they provided us with their full history of unlisted equity transactions.

Each data point provided by Beauhurst relates to a single issuance of unlisted equity and the parties investing into it. We note the following features:

- the data contain issuances of unlisted equity by companies based in the UK, with investment into this unlisted equity by parties based in the UK and in the rest of the world

- the data only capture issuances of unlisted equity in return for cash (rather than in return for other types of assets)

- the data only capture new issuances of unlisted equity and therefore details of any subsequent changes in ownership are not captured

Beauhurst's data coverage methods can be described as follows. Between 1 January 2011 and 31 December 2014, Beauhurst captured data on UK issuances of unlisted equity that were accompanied by a public announcement of the investment. Public announcement refers to a news article, press release, portfolio page or disclosure by an investor. From 1 January 2015 onwards, Beauhurst changed their collection method and increased their coverage through capturing data on all UK issuances of unlisted equity that were properly disclosed, that is, were accompanied by the filing of a [Return of Allotment of Shares (SH01) form](#) at Companies House, by looking at these filings.

This increase in coverage should be considered when assessing changes in the data over time.

Structure of data

Each data point relates to a specific issuance of unlisted equity, and includes the following information:

- the date that the deal took place

- the amount raised in the issuance in pounds sterling (GBP)

- details of the issuing party (more information given in Section 5)

- where available, valuations of the issuing party both before and after the transaction (GBP) (more information given in Section 4)

- where available, details of the investing parties (more information given in Section 5)

- where available, the number of shares issued

It should also be noted that all the information provided by Beauhurst is already in the public domain and there are therefore no confidentiality or disclosure issues with these data. Nonetheless, we adhere to the UK Statistics Authority's [Code of Practice for Statistics](#) and our strict [confidentiality principles (PDF, 238KB)](#), and have used these data purely for the purpose of calculating statistical aggregate values.

4 . Assessing data from Beauhurst against UK National Accounts 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 Beauhurst) 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 the enhanced financial accounts initiative 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 understand the potential for using data from Beauhurst to populate the financial account in the UK National Accounts, we must understand to what extent it is able to populate each of 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.

Coverage of population

To assess the value of data from Beauhurst for the UK National Accounts, it is important to understand what proportion of the unlisted equity market is covered by the data. We are investigating the coverage by comparing the data from Beauhurst with existing sources of data that cover the same market.

Within the current UK National Accounts, data about unlisted equity are derived mainly from the Office for National Statistics (ONS) Foreign Direct Investment (FDI) Survey, Financial Inquiries surveys and mergers and acquisitions data. ONS's mergers and acquisitions data have recently been improved by using commercial data to identify deals. We are currently comparing these sources with the data from Beauhurst, with the aim of answering the following two questions:

- how much of the unlisted equity market does the data from Beauhurst cover?

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

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

Levels

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

For issuance, the data from Beauhurst contain valuations of some of the companies' total issuance of unlisted equity at the time of the captured deals. These are calculated based on share prices, which are derived from the Companies House SH01 filings. These valuations are provided for only 79.4% of issuances in Beauhurst's data and only at the times that an issuance of new unlisted equity took place in return for cash (rather than at the end of each quarter). Should we wish to integrate data on levels of issuance of unlisted equity from Beauhurst into the financial account, more work is needed to assess how much of the requirements are fulfilled by these valuations. The work to use these valuations would include determining a method for estimating a change in value between the point of issuance and quarter end, and estimating the value of the issuances where a valuation did not take place.

The data from Beauhurst do not contain information on all investors' total holdings of unlisted equity at the end of each quarterly period; only the amounts acquired within given transactions. Should the data be used in the financial account, this will require further work to assess what proportion of investors' total holdings are captured in the data from Beauhurst by comparing with other sources.

Flows

The financial account requires transactions in unlisted equity during each quarterly period. Each data point supplied by Beauhurst represents such a change. However, these data points only cover cash investments and only new issuances rather than changes in ownership of unlisted equity. Should we wish to integrate data on flows of unlisted equity from Beauhurst into the financial account, more work is needed to assess how much of the required data are provided. This would include estimating the proportion of all transactions in unlisted equity paid in cash, and the value of resales of unlisted equity already issued.

Revaluations

The financial account requires changes in the value of unlisted equity within each quarterly period, which can include things such as currency changes and changes in share value. To provide this information, we would have to estimate the value of unlisted equity at time periods where it is not provided in the data from Beauhurst. The European System of Accounts 2010: ESA 2010 framework suggests three approaches to estimating the value of unlisted equity, including using the value of listed equity, using the accounting value given in the issuing company's financial reports, or applying an industry-appropriate price-to-earnings ratio to the issuing company's recent earnings. Further work is required to assess whether any of these approaches can be derived from the data provided by Beauhurst, and which approach would be the most appropriate to use.

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 unlisted equity. Examples include a reclassification of a company between institutional sectors (institutional sectors are discussed in Section 5) or a catastrophic event. Should the data be used in the UK National Accounts, this will require further assessment. This will include assessing whether sectoral changes can be identified in a timely manner in the data from Beauhurst.

Income from investments

The UK National Accounts require data on income from investments in unlisted equity. This is not provided by Beauhurst and will need to be considered in any methodology.

Historical data

To meet user needs, we aim to create a time series back to at least 1987, whilst the data from Beauhurst only begin in 2011, with full coverage from 2015. Therefore, should we wish to integrate historical data from Beauhurst into the financial account, we will need to examine methods to "back-cast" the provided data. We plan further work to assess the capacity for doing this, which could use tools recently developed under the enhanced financial accounts initiative.

Timeliness

The financial account requires data to be available in a timely manner for each quarterly period. Beauhurst's data are maintained on a live basis and they can extract them quickly from their database. However, Beauhurst investigates each of their transactions over time, as information such as Companies House SH01 filings (as discussed in Section 3) is not always immediately available. It can take up to three months or longer to build a clear picture of an issuance of unlisted equity after it takes place, so there may be revisions to data from previous quarters. Should we wish to use data from Beauhurst within the financial account, more work is needed to assess the scale of these revisions over time.

5 . Aligning data from Beauhurst to UK National Accounts concepts

To further determine how we can use the data from Beauhurst 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 so far has been split into two parts:

- firstly, we must allocate each issuer and investor to the correct sector and sub-sector of the economy; this is known as sectorisation

- secondly, we must establish how to deal with transactions where an investor's category and/or amount contributed is not known

Sectorisation

To integrate the data from Beauhurst, 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. Beauhurst have provided the following information on issuers and investors in their data.

Issuer:

- Beauhurst company URL (a unique reference to Beauhurst's database)

- name

- street address

- postcode

- Companies House number

- Standard Industrial Classification 2007 code (an industry classification code)

- incorporation date

- Companies House status (active or dissolved)

Investor(s):

- name

- amount contributed in pounds sterling (GBP)

- fund type (Beauhurst category)

- head office country

- postcode

- current stage of evolution (assessed by Beauhurst)

Before considering sectors, we separate investment from the UK and investment from the rest of the world. Beauhurst's investor categories do not contain a "rest of the world" category as the UK National Accounts institutional sectors do, so we use the "head office country" variable to assign each investor to either the UK or the rest of the world. However, the concept of "head office country" may not represent each investor's resident country in line with the definition in the European System of Accounts 2010: ESA 2010 framework. If implementing data from Beauhurst into the UK National Accounts, we will need to manually address this issue.

For sectorisation of issuers, Beauhurst provided Standard Industrial Classification (SIC) codes for the issuers. These relate to a description of each company's nature of business and can be directly matched to the UK National Accounts institutional sectors (the related mapping is shown in Annex 1). Our results were as follows. Beauhurst provided SIC codes for 99.2% of distinct issuers in the data:

- of these, we successfully matched 99.6% to UK National Accounts institutional sectors

- the remaining 0.4% had an entry of "99999", which is not a valid entry

We continue to work to sectorise issuers where the SIC code was either not provided or was set to "99999". Beauhurst obtain their SIC codes directly from Companies House filings and these codes may be unreliable in some cases. Therefore, we will look to use all available information in the dataset to improve this sectorisation. This will involve using similar approaches to those described for sectorising investors as follows.

For investors, SIC codes were not provided and so we looked at other approaches to sectorisation. For the initial analysis within this article we chose to report using Beauhurst's own industry categories. These are described fully in Annex 2. The use of these categories provides insight into the nature of the data, but further work is required to align the investors to the UK National Accounts institutional sectors.

One possible approach under investigation is to match known investor information (such as name and postcode) to the Office for National Statistics (ONS) Inter-Departmental Business Register. Using this approach, we have been able to match 51.3% of distinct investor companies to the UK National Accounts institutional sectors. In the coming months, we will continue to work on this process to improve the match rate and validate our matches.

Dealing with incomplete data

For some of the investors in the data from Beauhurst, both their amount contributed and their Beauhurst category are known. However, there are many investors for which one or both of these are unknown. Here we discuss our continuing work in looking at methods for use where not all information is provided.

For some issuances of unlisted equity, the data from Beauhurst provide information on the institutional sectors of the investors involved (as described above under "Sectorisation"), but not the individual amounts that were invested. We will investigate the feasibility of distributing the total amount raised across the known sectors, using a proportional method.

In collaboration with Beauhurst, we are also developing a method to deal with transactions where no information on the investors' institutional sectors is available. We expect to use ratios derived from instances where full institutional sector information is known to apportion the total amount raised across these sectors, although this is not yet finalised.

6 . Initial analysis of data from Beauhurst

This section contains preliminary analysis of the data received from Beauhurst. To provide an understanding of the data as delivered, we have currently carried out limited work to align the data with UK National Accounts concepts. This has included allocating issuers to UK National Accounts institutional sectors (referred to in this section simply as sectors) using the provided Standard Industrial Classification codes, known as sectorisation. We have at present used Beauhurst's own investor categories (full details of these are provided in Annex 2) rather than the UK National Accounts sectors, because we are not yet sufficiently confident in our sectorisation of investors.

When considering the following analyses, we ask users to bear in mind that, as described in earlier sections, these data purely capture new issuances of unlisted equity since 2011 in return for cash and should not be interpreted as showing a full picture of the unlisted equity market.

Composition of the UK unlisted equity market

Table 1 shows total amounts invested by each investor category (from the UK and the rest of the world) into UK unlisted equity issued by each issuing sector in 2017. Within this table we only consider investments where the investment amount and category of the investor are known.

Table 1: Recorded investment in unlisted equity[1], [2], by issuer sector and investor category[3], 2017, £ million[4]

Beauhurst Investor Category	Non-financial corporations	Other Financial Institutions			Unknown	Total
		Other financial intermediaries, except insurance corporations and pension funds	Financial auxiliaries	Captive financial institutions and money lenders		
	S.11	S.125	S.126	S.127		
Accelerator	3.1	0.1				3.2
Angel Network	42.3	1.1		1.5		44.9
Asset Management	90.5			675.0		765.5
Bank	13.0					13.0
Central Government	5.3					5.3
Charity/Not-for-profit company	31.3			0.0		31.3
Commercialisation Company	45.2					45.2
Corporate	361.9		5.0		0.0	366.9
Crowd funding	169.5	11.4	3.4	0.6		184.8
Devolved Government	43.3	0.1	0.5			44.0
Local and Regional Government	7.4				0.8	8.2
Merchant Bank		100.0				100.0
Private Equity and Venture Capital	872.9	7.5	2.5	6.2	3.0	892.0
Private Investment Vehicle	68.4	15.0		2.3	0.0	85.7
Specialist Lender	7.3					7.3
University	1.7					1.7
Unknown	805.0	2.5		30.9		838.3
Total	**2568.1**	**137.7**	**11.4**	**716.4**	**3.8**	**3437.4**

Source: Beauhurst

Notes:

1. The data from Beauhurst only include cash investments in new issuances of unlisted equity.

2. This table only includes investments where the investment amount and category of the investor is known.

3. Investor category refers to categories provided by Beauhurst, and not UK National Accounts institutional sectors. Further details are given in Annex 2.

4. '0.0' values represent investment values smaller than £0.05 million.

We can also look at issuance of unlisted equity over time. In the following analysis, we exclude issuance where the issuer's sector is unknown and group the issuer sectors into broader categories of financial corporations (S. 12) and non-financial corporations (S.11).

Figure 1 shows UK issuance of unlisted equity by quarter as reported by Beauhurst since 2011. Note that total values are larger than in Table 1, as transactions where investor information is not known are included in Figure 1.

Figure 1: Recorded issuance of UK unlisted equity [1], by issuer category

2011 to 2017

Figure 1: Recorded issuance of UK unlisted equity^1^, by issuer category

Coverage increases to all properly disclosed issuances of unlisted equity

2011 to 2017

£ million
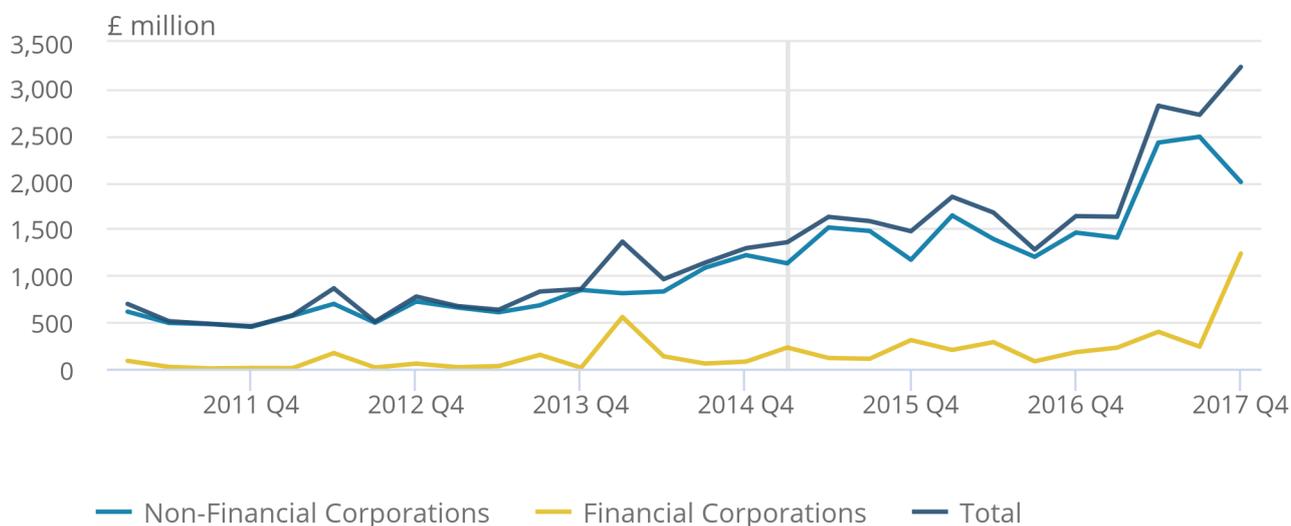
Source: Beauhurst

Notes:

1. The data from Beauhurst only include new issuances of unlisted equity in return for cash.

The figure shows that over the whole period, most unlisted equity was issued by non-financial corporations. The amount of issuance captured in the data from Beauhurst increases steadily between Quarter 2 (Apr to June) 2014 and 2016. In 2016, the total issuance dropped in the second and third quarters, before increasing sharply in 2017. In 2017, the increase between Quarter 1 (Jan to Mar) and Quarter 2 is driven mainly by an increase in issuance by non-financial corporations. Between Quarter 3 (July to Sept) and Quarter 4 (Oct to Dec), issuance by non-financial corporations decreased, while issuance by financial corporations increased, driven mainly by the Captive financial institutions and money lenders sector (further details on institutional sectors are available). Insight from Beauhurst suggests that both increases can be explained in part by the increasing trend for "megadeals", that is, very large issuances, with financial issuers being more likely to be involved in these. The most recent data from Beauhurst may be subject to future revisions as further investigation is carried out.

Rest of the world investment into UK unlisted equity

In the data from Beauhurst, 43.5% of the known investment value is invested by investors based in the rest of the world (that is, outside the UK). In this section we consider this portion of the data from Beauhurst, remembering that we have not yet aligned Beauhurst's concept of "head office country" to the UK National Accounts residency concept. Figure 2 shows rest of the world investment into UK unlisted equity by continent in 2017. The figure only includes investments where the investor's head office country is known. As discussed earlier, the data only capture new issuances of unlisted equity in return for cash.

Figure 2: Recorded investment from the rest of the world [1] into UK unlisted equity [2], [3], by continent

2017

Figure 2: Recorded investment from the rest of the world^1^
into UK unlisted equity^2^, ^3^, by continent

2017
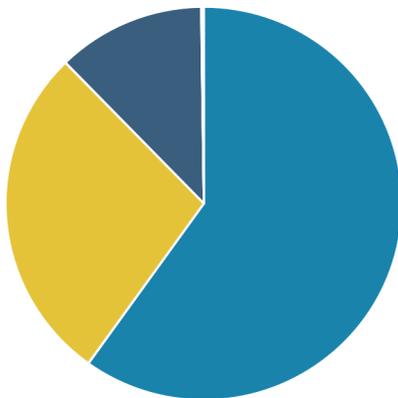
Source: Beauhurst

Notes:

1. Investors are assigned to the rest of the world based on head office country rather than the UK National Accounts residency concept.

2. The data from Beauhurst only include cash investments in new issuances of unlisted equity.

3. This figure only includes investments where the investor's head office country is known.

The figure shows that most cash investment from the rest of the world into new issuances of UK unlisted equity was by parties based in America and Asia, with a smaller portion from the European Union. Only a small amount of investment from European countries not in the EU28 and Oceania was reported in the data from Beauhurst in 2017. No investment was reported from Africa in 2017.

Investment into unlisted equity issued by UK non-financial corporations

Earlier in this section we saw that non-financial corporations are responsible for a large proportion of issuance of unlisted equity (85.7% by value between 2011 and 2017) in the data from Beauhurst. Now we consider general trends in issuance by non-financial corporations and look at what the data from Beauhurst can add to the picture.

In contrast to the preceding years, non-financial corporations have spent much of the past five years borrowing a greater amount than they have been lending. Meanwhile, the net rate of return (that is profitability) for private non-financial corporations has remained constant over the past three years. This raises the question of which sectors are financing these non-financial corporations and whether the finance is coming from the UK or the rest of the world. The importance of considering unlisted share issuance as part of this financing is highlighted by the use of equity trading (of small companies) and as a vehicle for generating equity finance.

Figure 3 shows the breakdown between UK and rest of the world investment (according to Beauhurst's provided "head office country" variable) into unlisted equity issued by UK non-financial corporations. The figure only includes investments where the investor's head office country is known. Again, we note that the data purely capture new issuances of unlisted equity since 2011 in return for cash.

Figure 3: Recorded investment into unlisted equity[1] issued by UK non-financial corporations, by UK and rest of the world[2, 3]

2011 to 2017

Figure 3: Recorded investment into unlisted equity^1^ issued by UK non-financial corporations, by UK and rest of the world^2^, ^3^

2011 to 2017
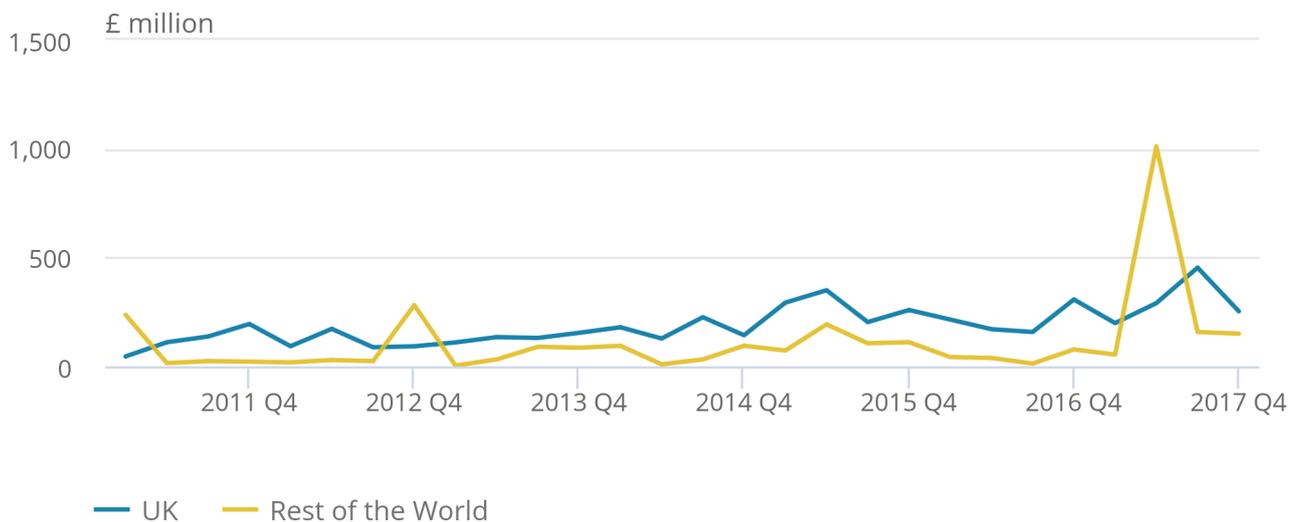
Source: Beauhurst

Notes:

1. The data from Beauhurst only include cash investments in new issuances of unlisted equity.

2. This figure only includes investments where the investor's head office country is known.

3. The UK / rest of the world split is based on head office country rather than the UK National Accounts residency concept.

Due to the nature of the market, there is a lot of volatility between quarters. Investments from the UK and the rest of the world exhibit similar patterns over time, with more investment generally coming from the UK than the rest of the world. A notable exception to this is in Quarter 2 (Apr to June) 2017. The large level of investment from the rest of the world reported in this quarter is due to investments from the "Corporate" category and an unknown category.
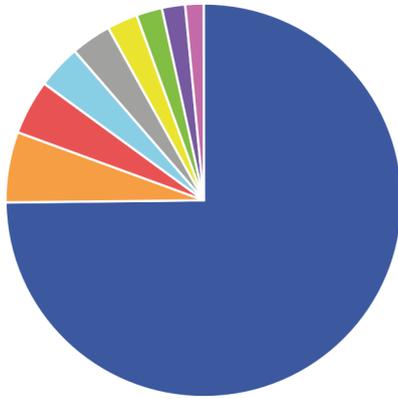
Figures 4a and 4b show a breakdown by Beauhurst investor category of investment from the UK into unlisted equity issued by UK non-financial corporations, in both 2011 and 2017. In each figure, the eight investor categories with the largest value of investment are shown, with the remaining 10 categories displayed as "Other investor categories". The figures only include investments where the investment amount and category of the investor are known.

Figure 4a: Recorded investment from the UK in unlisted equity[1] issued by UK non-financial corporations, by investor category[2, 3, 4]

2011

Figure 4a: Recorded investment from the UK in unlisted equity^1^ issued by UK non-financial corporations, by investor category^2^, ^3^, ^4^
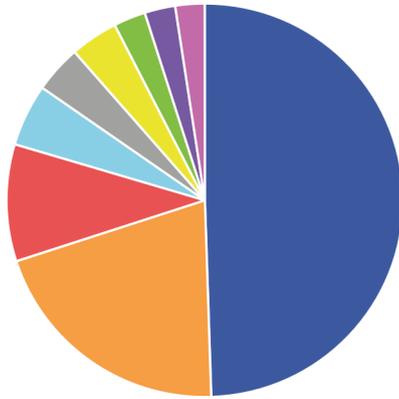
2011

Source: Beauhurst

Notes:

1. The data from Beauhurst only include cash investments in new issuances of unlisted equity.

2. This figure only includes investments where the investment amount and category of the investor is known.

3. Investor category refers to categories provided by Beauhurst, and not UK National Accounts institutional sectors. Further details are given in Annex 2.

4. Investors are assigned to the UK based on head office country rather than the UK National Accounts residency concept.

Figure 4b: Recorded investment from the UK in unlisted equity[1] issued by UK non-financial corporations, by investor category[2, 3, 4]

2017

Figure 4b: Recorded investment from the UK in unlisted equity^1^ issued by UK non-financial corporations, by investor category^2^, ^3^, ^4^

2017

Source: Beauhurst

Notes:

1. The data from Beauhurst only include cash investments in new issuances of unlisted equity.

2. This figure only includes investments where the investment amount and category of the investor is known.

3. Investor category refers to categories provided by Beauhurst, and not UK National Accounts institutional sectors. Further details are given in Annex 2.

4. Investors are assigned to the UK based on head office country rather than the UK National Accounts residency concept.

We see that "Private equity and venture capital" was the largest investor category by value in unlisted equity issued by UK non-financial corporations, in both 2011 and 2017. However, the proportion invested by this category decreased between 2011 and 2017, with investment by the "Corporate" and "Crowdfunding" categories having noticeably increased.

Earlier in this article we discussed the potential for data from Beauhurst to improve coverage of investments in unlisted equity made by individuals (the households institutional sector). Beauhurst's change in data coverage methods in 2015 may contribute to better coverage of Household investment, as these investments are perhaps less likely to be accompanied by public announcements. In the previous paragraph we note an increase in the "Crowdfunding" investment category between 2011 and 2017. Based on Beauhurst's descriptions, we have identified four categories that may include individual investments:

- Angel network

- Crowdfunding

- Family office

- Private investment vehicle

As we continue to assess the data from Beauhurst, we will look at these categories to see where they could offer improvements.

7 . Summary and next steps

In this article, we have demonstrated the potential of data from Beauhurst in improving our understanding of how money moves in, around and out of the UK economy. We have seen that data from Beauhurst have the potential to provide some, but not all, of the components necessary for recording the purchase of unlisted equity in the financial account and balance sheets. While the quality of the data is good, further work remains to evaluate its coverage and how well it can be aligned to the institutional sectors used in the UK National Accounts. We begin by summarising the benefits and limitations of data from Beauhurst.

Benefits of data from Beauhurst:

- they provide increased granularity in the form of from-whom-to-whom information on unlisted equity, which is an important aim for the enhanced financial accounts initiative

- dependent on coverage, they have the potential to replace data collected by existing Office for National Statistics (ONS) surveys

- they could provide a source of data on household investment into UK unlisted equity, which is currently not fully covered in the UK National Accounts

- they could provide a source of data on investment into UK unlisted equity from the rest of the world, which is currently not fully covered in the UK National Accounts

Limitations of data from Beauhurst:

- they only capture issuances of unlisted equity in return for cash

- they only capture new issuances of unlisted equity

- they only provide information from 2011 onwards

- they do not provide a picture of the whole market, as this is dependent on knowing about issuances that took place before 2011

- they do not provide data on earnings from investments

- they do not contain complete investor data for all captured issuances

We consider the following uses of the data from Beauhurst:

- replacing: assessment continues to determine the potential for replacing data, but it is unlikely due to the limitations described previously

- augmenting: as demonstrated, we can produce from-whom-to-whom statistics with the data from Beauhurst and depending on our assessments of coverage and sectorisation work, we hope to augment sections of the financial account where there is lower coverage, such as rest of the world investment, household investment and from-whom-to-whom data where not covered by the Financial Inquiries surveys

- complementing: this article demonstrates the capacity of data from Beauhurst for producing complementary analysis, such as the funding behaviour of the non-financial corporations institutional sector and we will continue to look at where data from Beauhurst can provide this complementary insight

Our next steps in working with the data from Beauhurst will be to:

- continue to assess the coverage of the data from Beauhurst by comparing against existing sources

- assess the coverage and quality of valuations of issuing parties in the data as a potential source for information on levels

- assess how much of the requirements for flows, revaluations, other changes in volume, interest and historical information could be satisfied by the data

- improve and validate our sectorisation of investors by developing methods to better match based on Companies House numbers

- work with Beauhurst to develop methods to deal with unknown data points

- assess the concept of "head office country" against the UK National Accounts concept of residency

- use our coverage assessments to identify institutional sectors where this data could augment the UK National Accounts (such as investment from the rest of the world and household investment)

- identify further pieces of complementary analysis that the data could provide

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

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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

2 July 2018 – Economic Statistics Transformation Programme: enhanced financial accounts (UK flow of funds) – an introduction to shadow banking and market-based finance

11 June 2018 – Experimental financial statistics for UK insurance sector using Solvency II data

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 and Balance Sheets](#)

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

13 July 2015 – [Introduction Progress and Future Work](#)

10 . Annex 1: Mapping of Standard Industrial Classification Codes to UK National Accounts institutional sectors

Table 2: Mapping of Standard Industrial Classification codes to UK National Accounts institutional sectors

SIC Range	Sector Number	Sector Name
01010 to 63999	S.11	Public or Private Non-Financial Institutions
64191 to 64192	S.122	Banks and Building Societies
64201 to 64209	S.127	Other Financial Intermediaries (Money Lenders)
64301 to 64302	S.124	Non-Money Market Funds
64303	S.125	Other Financial Intermediaries (Other Service Activities)
64304 to 64306	S.124	Non-Money Market Funds
64910 to 64999	S.125	Other Financial Intermediaries (Other Service Activities)
65110 to 65202	S.128	Insurance Corporations
65300	S.129	Pension Funds
66110 to 66300	S.126	Other Financial Intermediaries (Auxiliary Services)
68100 to 98200	S.11	Public or Private Non-Financial Institutions
99000	S.2	Rest of the World
99999	Unallocated	Unallocated
UK Consumer Borrower	S.14	Households
Channel Island or Isle of Man Borrowers	S.2	Rest of the World

Source: Office for National Statistics

11 . Annex 2: Details of Beauhurst investor categories

Table 3 shows the information received from Beauhurst on their investor categories. Note that we have used these categories to provide an early view of the data, but have not investigated how they are allocated and do not plan to use these categories in the UK National Accounts.

Table 3: Details of Beauhurst investor categories

Beauhurst Investor Category	Description
Angel network	An angel network is an organisation (or sometimes a platform) that helps to originate and facilitate investments. The individual angels will be the shareholders in the investee.
Asset management	An asset manager pools its clients' capital and makes diversified investments in a variety of asset classes, ranging from unlisted company shares to listed company shares and debt instruments.
Bank	Banks can provide debt funding to investees (either through high-street loans or venture debt facilities). They can also make equity investments off their balance sheet.
Central Government	These are funds that are capitalised using public money that is disbursed by central government and are managed by either public or private organisations.
Charity / Not-for-profit company	This encompasses all funding programmes that are managed by a charity or non-profit organisation. These funds mostly provide debt or grant funding.
Commercial-isation company	Commercialisation companies provide equity or grant investment into university projects and research organisations that are developing new technologies or IP, to support them in becoming fully-functioning businesses. This may involve assistance with spinning-out or licensing.
Corporate	Corporate funds are those that get their capital from, and are managed by, corporate organisations. This allows the corporate to make direct and often strategic investments into companies, which may include the provision of industry expertise or guidance.
Crowd-funding	Crowdfunding provides equity investment, debt funding (via peer-to-peer lending) or rewards-based funding. Most crowdfunding organisations operate via online platforms, which enable individual investors to buy shares in, lend to, or donate to companies in exchange for share, principal and interest or the promise of the future delivery of services or products.
Devolved Government	These are funds that are capitalised using public money that is disbursed by a devolved government and are managed by either public or private organisations.
European	European funds consist of any funding programme managed by an EU entity.
Family Office	These are wealth management firms that manage and invest the money of a wealthy individual, family or multiple families.
Local and Regional Government	These are funds that are capitalised using public money that is disbursed by local and regional government and are managed by either public or private organisations.
Merchant Bank	Also known as investment banks, these operate financial advisory businesses that sometimes also make investments into companies off their balance sheet.
Private Equity and Venture Capital	These are funds that predominately make equity investments into unlisted companies. Venture capital funds typically take minority stakes in earlystage, high-growth businesses; private equity funds typically make investments into, or buy out, established companies. Some funds invest across the board.
Private Investment Vehicle	These are privately-owned legal entities set up by wealthy individuals.
Property Lender	Property lenders are specialist lenders that provide debt financing for the acquisition or development of residential or commercial property.
Research Council	These encompass all funding programmes run by the research councils. These are seven distinct bodies that provide funding and facilitate research into the arts, humanities, science and engineering.
Specialist Lender	Specialist lenders are non-bank and non-government-managed providers of debt finance. They can offer venture debt and/or asset-backed loans.
University	These are funds set up and managed by universities. These funds usually invest into spinouts or companies set up by students or alumni.