UK COMPANY STATISTICS RECONCILIATION PROJECT

Final Report

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JANUARY 2009

About this publication

Published in January 2009 by the Department for Business, Enterprise and Regulatory Reform

URN 09/599

This BERR publication can be downloaded at
http://www.berr.gov.uk/whatwedo/businesslaw/corp-gov-research/current-research-proj/page18121.html

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1 Introduction

1.1 This report commissioned by the Department for Business Enterprise and Regulatory Reform (BERR) considers how the number and type of companies in the UK can be assessed and evaluated. It focuses mainly on reviewing information extracted from FAME[1] on the size and type of companies, which is purchased from Companies House (CH). It also considers how information extracted from the IDBR[2] can be used to verify or corroborate FAME data.

1.2 For the purpose of this report it is "Companies" that are defined as corporate bodies registered at Companies House (CH); this can include active and inactive companies. In May 2007 FAME contained records of around 2.27 million companies, which include all the companies registered with CH not known to be dead. This figure is attained by removing all observations that relate to Irish companies, foreign companies and all companies who have never produced accounts (appendix F)[3] from the 3.6 million companies contained on this dataset. Three quarters (1.69M) of the population are live companies, 90% (1.54M) of which are live and trading; the remaining population (0.58m) in FAME are inactive (in receivership, in liquidation or being closed). Appendix F also contains a tree diagram breaking down the above divisions of the FAME dataset.

1.3 All[4] *limited* and *public limited companies* must send their accounts to the Registrar. If they are eligible and wish to, medium-sized, small, and dormant companies may prepare and file 'abbreviated accounts'. *Unlimited companies* need only deliver accounts to the Registrar if, during the period covered by the accounts, the company was:

a subsidiary or a parent of a limited undertaking; or

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[1] FAME contains detailed information on public and private companies in the UK and Ireland e.g. company profiles, profit and loss accounts, subsidiaries and directors. The FAME database is provided to BERR by Bureau van Dijk

[2] Inter Departmental Business Register (IDBR). The Inter-Departmental Business Register (IDBR) is a list of UK businesses maintained by the Office for National Statistics (ONS) and combines the former Central Statistical Office (CSO) VAT based business register and the former Employment Department (ED) employment statistics system. It complies with European Union regulation 2186/93 on harmonisation of business registers for statistical purposes.

[3] The reason why observations of companies who have never produced accounts are removed is that these companies will have no statistics to analyse and cannot provide information for this paper.

[4] Companies House website: http://www.companieshouse.gov.uk/about/gbhtml/gba3.shtml

- a banking or insurance company (or the parent company of a banking or insurance company); or

- a 'qualifying company' within the meaning of the Partnerships and Unlimited Companies (Accounts) Regulations 1993

- operating a trading stamp scheme.

1.4 Analysis of information held in FAME and CH is limited because of the lack of key information required to determine the size of companies. This is important as all three measures are used to determine the regulatory requirements of a company [5] (as defined in Tables 4a – c[6]). As shown above many companies are only required to send abbreviated accounts to the registrar and as a result most companies will provide information on gross assets, but most small companies do not provide information on turnover and employee numbers. Different approaches can be used when analysing these three measures; they are with regards to using:

1) only known data, hence focusing on the information provided by companies

2) imputed and known data, which look at the information provided by companies and estimates for missing values, which are derived from known values and industry type

3) assuming that anything that has to be imputed is small, as otherwise there would be reported values

A break down of the differing company size and populations that are attained from using these three approaches can be found in Annex D.

This report uses 1) the known data for the following reasons

- imputed values are largely derived from gross assets and industry, implying difficulties in attempting to analyse, for example, employment compared to gross assets as if they were two independent variables

[5]Section s382,383,465, and 466 of the Companies Act 2006 define small and medium –sized companies as those that meet 2 or more of the criteria below in their first financial year, or in the case of a subsequent year in that year and the preceding year (This is detailed further, with examples showing how and when companies would change size in Tables 4a – c in Annex B),:

To be eligible to be exempt from the statutory requirement to have an audit a company must be small and meet the 2 criteria for 2 consecutive years in respect of turnover and balance sheet total.

[6] All Tables referenced in this report can be found in Annex B

- drawing relationships between FAME and other datasets such as the IDBR requires reviewing actual results

1.5 Unless otherwise specified all FAME data in this report excludes the Republic of Ireland (ROI) and other foreign companies, and certain companies with unknown characteristics[7]. The "size" variable used for analysis is derived from employment, turnover and gross assets, using standard definitions for size as defined by the Companies Act (see table 4a). Results presented below suggest that, where the data exists, the three variables are good proxies (Section 5) for each other. Most of the values here are based upon gross-asset value, which exist for all but 0.26% of companies. Where different size estimates for a company disagree (for example a company has many employees but low turnover), the assumption is made that if the missing values were large or medium then it would have been reported. Zero values in the table occur where a company has supplied no data or claims to be operating with zero turnover, employment and/or assets. Zero values should infer that a company is small, however it may equally refer to no data being supplied; no investigation has been made within the scope of this paper as to the extent of no information being supplied[8]. Finally, this analysis covers companies as separate units but in general does not distinguish between separate companies and parts of a wider group[9].

1.6 The total population of number of companies by size and account types taken from FAME 2007 is set out in table 1a below, whilst the population of companies by legal form and size is set out in Table 1b.

1.7 For non-zero values, it is clear that accounts are dominated by firms with an exemption from filing and/or firms that are dormant. Interestingly, around 10% of small companies appear to file full accounts even though they are eligible to provide abbreviated accounts; this number cannot be accounted for by membership of group, which indicates that companies apparently faced with a choice do not always choose a minimal level of filing.

[7] As stated in 1.2 and elaborated in section 5.4.

[8] The result of this is the Tables in this report have two separate columns for zero values and small companies, when in actuality some if not all of the zero values would suggest that for that factor, the company is classified as small.

[9] Under the Companies Act a company which qualifies as small may submit abbreviated individual accounts even if part of a large group, unless it is the parent company of the group. If it is the parent company it cannot qualify as small unless the group headed by it qualifies as small(see section 382 and 383 Companies Act 2006).

Table 1a: Summary of Company size by Accounts Type in FAME 2007

	Company Size (000s of observations[10])				
Company Account Type	**0 values**	**Small**	**Medium**	**Large**	**Total**
Full accounts	17	158	33	20	227
Group	0	5	6	7	19
Other	0	4	1	0	5
Medium Company	0	5	4	0	9
Small company	4	96	10	1	111
Exemptions	111	1342	3	0	1456
Total excluding dormant	133	1610	57	29	1829
Dormant	369	71	3	2	445
Total	502	1681	60	31	2274

1.8 By definition the account types Small and Total exemption should be small companies; Medium and partial exemption should be Medium-sized companies. Full accounts may be any size. Exemptions refer to a company qualifying to be exempt from having to undertake an audit. Companies with exemptions have to submit abbreviated accounts, therefore companies who submit abbreviated account should be small or medium in size. Group and Dormant companies should not be classed in this way. For accounts types other than full, medium and or group the company is almost certain to be small.

1.9 The term 'dormant' applies to a company that, in legal terms, has 'no significant accounting transactions' during a financial year. It is not the same as a 'non-trading company', a term that has no legal meaning. No significant accounting transactions means there are no entries in the company's accounting records[11]. The majority of zero values are for dormant companies, and the majority of dormant companies have little or no size information. Hence, dormant companies can be associated with zero or missing values with a reasonable degree of confidence.

[10] The Tables in this paper have been calculated in 000's, with values being rounded to the nearest thousand. Therefore, 4,600 would become 5, while 4,400 would become 4.
[11] Companies House website: http://www.companieshouse.gov.uk/about/gbhtml/gba10.shtml#one

Table 1b: Company size and legal form FAME 2007

	Company Size (000s of observations)				
Company legal form[12]	**0 values**	**Small**	**Medium**	**Large**	**Total**
Private Limited	496	1606	54	26	2181
Guarantee	4	59	2	1	65
Public, Not Quoted	1	5	2	2	10
Limited Liability Partnership	1	8	1	0	10
Unlimited	1	3	0	1	5
Public, Quoted	0	0	0	1	1
Other	0	0	0	0	1
Total	502	1681	60	31	2274

1.10 Table 1b shows the legal status of companies recorded on the FAME database, 96% of the total companies in the UK are private limited companies. These are split between small, medium and large companies roughly in proportion to their share of the overall population of companies. Other company types tend to be small, with the exception of publicly quoted companies; these are almost always large.

1.11 Although small companies dominate the population, this does not necessarily translate into economic activity. Table 2 shows the relative impact that the size of companies has on employment.

Table 2: Company size by employment – reported values (FAME, May 2007 and IDBR September 2007)

Employ-ment	Size	Companies	Companies	Percentage of companies		Percentage of employment	
		FAME (000's)	**IDBR (000's)**	**FAME (2007)**	**IDBR (2007)**	**All companies**	**IDBR (2007)**
0		N/A	22	N/A	.95	N/A	N/A
1-10	Micro	56	2074	43.43	89.63	0.73	18.48
11-50	Small	31	176	23.88	7.61	2.8	13.07
51-250	Med.	31	33	23.36	1.43	11.74	11.82
251+	Large	12	9	9.32	0.38	84.75	56.63
Total (000's)		131	2314			29264	28252

1.12 The table here uses only the FAME reported values, not imputed values

[12]Definition of legal forms are set out in annex I

based upon gross assets. It is clear that, although small or micro[13] companies dominate in terms of number of companies as they make up 67% of the population, they only account for 4% of employment. Employment reporting is disproportionately high amongst large companies[14]. This suggests that, if all companies reported employment then the share of micro and small companies defined by employment would rise substantially. However, as the *known* employment in FAME accounts for some 30 million jobs, 25 million of which are accounted for by large companies and with the total work population of 31.62 million (Dec 2007[15]), it is unlikely that this additional information would greatly change the balance between the size bands with regards to the overall number of employment.

1.13 IDBR has a much greater population than FAME and clearly differs with regards to the distribution of companies among the given size bands. The larger dataset shows that those observations that FAME has missed can be mostly attributed to small companies. The IDBR also suggests that FAME overestimates the number of large companies (with regards to percentage of employees). Despite the lower % of employees, micro and small companies clearly represent a large number of companies and employees in absolute terms and hence have considerable economic and political significance.

1.14 The rest of this report studies these results in more detail, and also looks at the use of the IDBR as both a direct contributor through data linking and as a comparator to provide supporting evidence.

2 Background

2.1 The number and type of economic operations in the UK is important for policy makers. Two of the key reasons for government interest are

- the ability to assess the impact of regulatory changes
- the desire to identify where and how change in the business economy occurs

2.2 This is complicated by the difficulty of obtaining a consistent view of the business economy. Different units of government and commercial data providers

[13] Micro companies are discussed further in section 6.3. A micro company is one with a level of employment of ten or less.

[14] Double counting could explain to some degree why this may be the case, as if groups provide accumulated accounts each level of the group will include all employment from previous levels. Furthermore there is also a chance that companies will report foreign workers within their total number of employees, resulting in employment that is not within the UK also being counted. The effect of this within this dataset may not change the results dramatically, but it is worth noting, especially as at this time it has not been practical or feasible to investigate this further within the scope of this project.

[15] ONS – latest labour market statistics, www.statistics.gov.uk/cci/nugget.asp?id=12

have different definitions of companies and economic activity, which reflect their own business needs. The reasons for the differences in coverage include:

- "businesses" versus "companies"
- the importance of significant economic activity
- public versus private companies
- legal status
- operational structure
- reporting structure and requirements
- the level of geographical detail
- ownership structure

2.3 There have been a number of projects which have reviewed sources of information on business activity. Annex C lists recent relevant pieces of research. In summary, a great deal is known about why estimates should differ. It is also clear that differences are due to the requirements of the collecting bodies, rather than deficiencies in measurement or estimation. Moreover, none of the existing reports had a key objective of producing a detailed reconciliation of the different data sources.

2.4 The ultimate objective of this project is to allow better assessment of the impact of regulation on companies. Hence, the interest will be on the number of "companies" (as defined below).

2.5 The following section provides a brief overview of the different data sources. The following sections then address the objectives of this project, namely:

- to develop an estimate of the scope of company activity
- to develop a framework for reconciling analyses
- to create a dataset for use by BERR of policy purposes
- to create a dataset for ONS academic and government researchers
- support additional research on company/business activity

3 An introduction to Data Sources

3.1 There are three main sources of data on businesses and companies in the UK.

- **HM Customs and Revenue (HMRC)** maintain a register of all tax-payers in the UK. This includes personal tax, corporation tax, sales tax, and customs and excise duties. Hence, any organisation or individual providing revenue to the UK government will have a record at HMRC, as will any unit registering for tax whether any tax is paid or not. The two

specific levies that are paid by businesses are VAT and PAYE. The HMRC records are kept alive as long as there are outstanding tax amounts due. The record units at HMRC are organised by personal/corporation taxes and sales/excise taxes, based on 2005/06 tax returns, HMRC have record of 1.3 million companies on their database

- **Companies House (CH)** is the official registrar of companies in the UK. As such, the definition of "company" is synonymous with registration at CH. CH records basic accounting information, as well as information on the structure of companies and the legal status of the unit. CH data is the main data source for commercial value added resellers, such as Bureau van Dijk (who produce the FAME database) and Dun and Bradstreet. The recorded unit at CH is the company (Total population 2007 - 2,103,000[16])

- **The Office for National Statistics (ONS)** maintains the Inter-departmental Business Register (IDBR). The IDBR is a live register of all business activities, including companies. The sources for the data are HMRC, CH, Dun and Bradstreet, and the ONS's own surveys and conversations with large companies. The IDBR covers 99% of non-governmental economic activity in the UK. The IDBR estimates of business activity underpin all the estimates of the economic activity (albeit with reference to third-party sources such as HMRC tax revenue). The total population of enterprises was 3.6 million in 2007[17].

3.2 The IDBR's unit of interest is the "Enterprise", which often, but not always corresponds to a company and/or a tax-paying unit. The IDBR also maintains information on the structure of companies, including "enterprise groups" (the top-level holding company for a group) and "local units" (establishment details). However the information held on a particular enterprise is relatively limited: number of employees, turnover, location and industrial classification of establishment, which can be aggregated to the enterprise level. Note however that turnover is sometimes imputed from employment, or vice versa, depending which administrative sources are available for the enterprise.

3.3 HMRC record-level data was not available for this project due to legal restrictions.

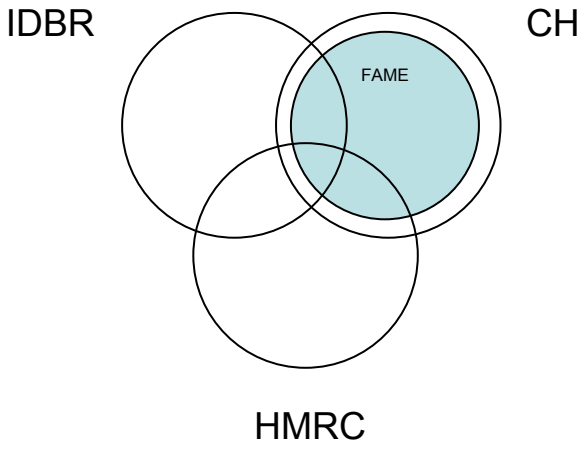
3.4 As the IDBR is a live register, it is not appropriate for carrying out historical or dynamic analyses. However, ONS' Virtual Microdata Laboratory (VML) team have created a longitudinal version of the IDBR based upon annual snapshots of the register. This is known as the Business Structure Database (BSD). It contains the same information as the IDBR, except that additional reference numbers,

[16] This is taken from Annex L, the shaded yellow area
[17] A more detailed description can be found beneath Table 1 in Annex K, which looks solely at IDBR data.

such as CH numbers or VAT references have been added retrospectively. Hence, there is a possibility that BSD enterprises may be mis-identified with the wrong contemporaneous HMRC or CH units.

3.5 In order to look at the number of companies, the FAME dataset provided to BERR by Bureau van Dijk was used. This should cover all economically active units on the CH register. The information used in compiling this report is from the CH data as provided in the FAME dataset, but supplemented with information attained from other sources such as shareholder information, annual returns and the companies database by Bureau Van Dijk.

Figure 2: The FAME dataset in relation to the IDBR, CH and HMRC



4. Definitions of company versus economic activity

4.1 All the datasets considered report on a combination of economic and legal activity; however, the differing sources and purposes of data collection means that there is an imperfect overlap between the data sources.

4.2 For example, CH only reports on registered companies, while the other two datasets focus on enterprises with economic activity. The IDBR is only interested in economic activity, not in registrations, and HMRC only comes into play when revenue needs to be collected. So there is clearly not one complete set of data which includes all the others.

4.3 Table 3 shows the various possible categories for which a company/business could occupy.

4.4 The FAME dataset is a representation of CH data, providing information on UK and Irish companies. Figure 2 shows how FAME relates to the IDBR, CH and HMRC datasets. This diagram is just for illustrative purposes; the size of the areas is not reflective of the number of entities/companies that they represent. However it does show that the companies listed in FAME will be a subset of those that are defined in Table 3 as the numbers 2, 3, 4 and 6.

4.5 The relationship between FAME and CH data is not precise. FAME should be identical to the CH files; but FAME does not retain records of dissolved companies for as long as Companies House or ONS[18]. FAME also contains records of Irish companies which need to be excluded from studies of the UK population.

4.6 In terms of regulation,the focus of interest is on the economically active company:

> *Economically active company: a legally registered company, operating in and reporting accounts for the UK, and carrying out some economic activity*

This report will look at both the active and inactive companies that exist within the FAME dataset.

In an ideal world, this would describe the FAME entries exactly, where the FAME dataset would be entirely in the IDBR/CH/HMRC intersection. However, as the reconciliation section (Section 8) will prove, this is not the case. So, reference to the CH/HMRC/IDBR views of the world will continue to be made.

[18] CH and ONS keep a record of all companies that have ever existed, while FAME focuses on those that have been recently live, i.e. FAME should remove a company within 10 years of it ceasing to exist.

Table 3: Defining companies within the datasets

No	IDBR	CH	HMRC	Type of Entity
1	√	X	X	Enterprises that are not registered as a company, exempt from VAT and do not have any employees, but have/had economic activity (IDBR also holds records of dead businesses). An example of this could be a sole trader or a partnership. It is also possible for government bodies or charities to be in this category
2	√	√	X	A company with no employees and not registered for VAT
3	√	√	√	A registered, active company, registered for VAT and/or pay PAYE
4	X	√	√	Inactive registered companies that are registered for VAT
5	X	X	√	Non registered enterprises who are VAT registered and/or pays PAYE, such as sole traders or partnerships but too small to be recorded on the IDBR. As a HMRC dataset has not been analysed at this time it is difficult to ascertain if this is a possible outcome. For while an enterprise may be VAT registered and/or pay PAYE, they would be active and therefore should also be included within the IDBR dataset.
6	X	√	X	Registered companies that are not active, who are not VAT registered and do not pay PAYE; an example of this would be a dormant company
7	√	X	√	Enterprise that have business activity, but are not registered companies; an example of this would be a sole trader or partnership
8	X	X	X	Those businesses that are not on any of the registers, for example sole traders who are not registered with companies house, for VAT or PAYE and too small to be recorded on the IDBR. The evidence that this exists and is significant comes from household surveys, such as the LFS[19], however it is not possible to assess this within the current dataset.

[19] The Labour Force Survey (LFS) is a quarterly sample survey of households living at private addresses in Great Britain. Its purpose is to provide information on the UK labour market that can then be used to develop, manage, evaluate and report on labour market policies. The questionnaire design, sample selection, and interviewing are carried out by the Social and Vital Statistics Division of the Office for National Statistics (ONS) on behalf of the Statistical Outputs Group of the ONS.

5 Scope of Activity – Company Size

5.1 Analysis of company size is vitally important as it enables an understanding of the impact of future policy and regulation changes. The Companies Act (1985/2006) defines the size of a company by the number of employees, turnover and gross assets of a company. A summary of the specific values attached to the criteria which define whether a company is small, medium-sized or large are set out in Table 4a [20]. It is worth noting that the analysis in this report has been undertaken in accordance with the thresholds set until 31 March 2008.

Table 4a: Thresholds used to define Small and Medium-Sized Companies

	Financial Thresholds up to 31 March 2008			**Financial Thresholds from 01 April 2008**	
	Turnover (not more than)	Balance sheet total (not more than)	Number of employees (not more than)	Turnover (not more than)	Balance sheet total (not more than)
Small company	£5.6 million	£2.8 million	50	£6.5 million	£3.26 million
Small Group	£5.6 million net (or £6.72 million gross)	£2.8 million net (or £3.36 million gross)	50	£6.5 million net (or £7.8 million gross	£3.26 million net (or £3.9 million gross
Medium-sized company	£22.8 million	£11.4 million	250	£25.9 million	£12.9 million
Medium-sized Group	£22.8 million net (or £27.36 million gross)	£11.4 million net (or £13.68 million gross)	250	£25.9million net (or £31.1 million gross)	£ 12.9 million net (or £15.5 million gross)

5.2 This analysis creates a size band for each of the three determining factors by assessing the company against the parameters in Table 4a. An overall size band for the company can then be created; Table 5 explains how this overall size was assessed.

5.3 The FAME dataset used for this analysis was created by BERR from the live May 2007 FAME database. It holds the complete FAME data as recorded at that moment. This includes all companies listed as "live" (see definitions in Annex

[20] Further information and examples of how a company's size changes can be found in Annex B, Tables 4a – c.

I), and historical accounts information as far as that is possible. Each company would have one record describing its legal and operational status in the last year of reported accounts. We refer to this dataset as the FAME07 data. For the dynamic analysis below we also use an earlier file, FAME06, which includes detailed accounts information for the firms.

5.4 FAME includes all Irish and a few foreign companies; these were removed, as they do not provide an insight into UK company demography. Also removed from the population were a number of companies who had never supplied company accounts, which could suggest the absence of activity or these companies are new[21]. The reason for their exclusion was that they would not have values for turnover and employment and may not have a value for gross assets. Therefore almost nothing can be said about these companies or how any regulation affects them.

5.5 A reconciliation chart showing the number of observations in the population and how this was calculated is shown in Annex F.

5.6 The following analysis is also going to focus on two different types of FAME population:

- the full population (excluding elements noted above)
- only companies with fully reported values for turnover, employment and gross assets; we refer to this as the *fully reported subset*.

The aim of this is to look directly at the companies that have fully reported values and to see if such analysis can divulge further information.

5.7 It is worthwhile to note that of the observations in the sample population with fully reported values for employment, turnover and gross assets; company size is disproportionate with that of the total population. The reason for this is that UK company law only requires large companies to provide all three sets of information in the accounts they file with CH. Medium-sized and small companies do not have to report in as much detail which means that when looking at a sample of the population with fully reported values this will include most if not all of the larger companies with decreasing amounts of smaller sized companies.

The size and Activity of Companies

5.8 The results of creating size bands for employment, turnover and gross assets can be found in Table 5. This shows the frequency and percentage of

[21] New companies have their first accounting period set as the first anniversary of the last day in the month in which the company was incorporated. The company then has a further 9 months in which to submit their accounts. In total a new firm will have up to 22 months to submit their first annual accounts.

companies for each of these factors (details regarding this allocation can be found in Annex B, below Table 5).

5.9 There is a disparity in the reporting of information: turnover and employment have no reported values for a high number of observations (94% and 78% respectively). Gross assets have only 0.26% of the sample where a value is not given. The reason for this is that a value for gross assets is stated when a company is first registered and updated each year when the company submits abbreviated accounts; whilst turnover and employment would be obtained from the submission of full accounts, which not all companies are legally required to provide.

Table 5: An explanation of the overall size band

[22]Size determinant	Individual factor size (X=no value)	Overall company size	No of observations total population (000's)	%	No of observations active companies since 2005(000's)	%
0	XXX		502	22.09	328	20.05
1	SXX	Small	1241	54.56	928	56.63
2	SSX	Small	368	16.2	256	15.61
3	SSS	Small	47	2.07	30	1.82
4	MXX	Medium	23	1	20	1.2
5	MSX	Small	14	0.6	11	0.7
6	MSS	Small	9	0.42	6	0.4
8	MMX	Medium	6	0.25	5	0.31
9	MMS	Medium	8	0.34	6	0.36
12	MMM	Medium	8	0.35	6	0.38
15	LXX	Large	14	0.62	12	0.74
16	LSX	Medium	5	0.24	5	0.3
17	LSS	Medium	2	0.08	2	0.09
19	LMX	Medium	3	0.11	2	0.14
20	LMS	Medium	2	0.11	2	0.13
23	LMM	Medium	5	0.22	4	0.25
30	LLX	Large	2	0.07	2	0.1
31	LLS	Large	1	0.05	1	0.06
34	LLM	Large	5	0.24	5	0.28
45	LLL	Large	9	0.37	7	0.45
Total			2274	100	1,638	100

[22] Please note that while the value 17 has been miscoded as a medium sized firm, when in actuality it should be a small firm it relates to approx 2000 observations. The code for this has been corrected for future analysis)

5.10 If gross assets were used as a proxy for company size in the absence of other factors it could be assumed from Table 6a below that the majority of the companies who do not have values for turnover or employment would seem to be small in size. 95% of the observable population for gross assets appear to be small (including those that had no value for all three observations).
Even with regulation in place, analysis upon company size has required the use of judgement, as it is possible to view the results of the individual factor size column in different ways. An example of this is size determinant 20, for which judgement clearly has to be used, as it could be argued that these observations should be classed as small, medium or large. A problem created by this method is misjudgement, for example size determinant 16; for reasons of consistency and correctness these observations should be classed as small companies, rather than medium.

Table 6a: FAME company size (May 2007)

	No of Companies by Turnover (000's)	%	No of Companies by Employment (000's)	%	No of Companies by Gross Assets (000's)	%
Company Size per size criteria						
Small	88	3.88	440	19.36	1,643	72.26
Medium	31	1.37	25	1.1	61	2.69
Large	12	0.54	17	0.77	44	1.92
0 value	0	0	13	0.56	520	22.87
Missing value	2,142	94.21	1,779	78.21	6	0.26
Total	2,274	100	2,274	100	2,274	100

5.11 Table 7 shows the level of company activity for this population. Approximately 68% of the companies in this sample are live and trading (see Annex I for definitions). A small number of companies are live, but inactive and non trading; for example, the company may be dormant[23]. The remaining 25% of the sample relate to companies that are dissolved, in liquidation or receivership.

[23] "Dormant" and "inactive" (and certainly "inactive – live non trading") are far from synonymous. There are 193,000 companies FAME deems to be active – live but which have accounts type shown as Dormant. There are also many inactive companies which have an accounts type other than dormant.

Table 7: FAME level of company activity (May 2007)

Level of activity	No of companies (000's)	Percent
Active – Live	1,545	67.94
Inactive - Live Non-Trading	149	6.54
Inactive – Other	580	25.52
Total	2,274	100

5.12 Table 6c shows the results of the size bands created for Table 6a but only considers the fully reported subset[24]. Out of two and a quarter million companies only ninety-seven thousand had values for all three factors; and these are disproportionately larger companies in comparison to the whole population. Each of the three factors has about 60% of the sample of the population as small companies, 25% as medium companies and 15% as large companies. Hence this does limit some of the inferences which can be drawn as the simple aggregates are not representative of the whole dataset (but note this does not necessarily mean that analyses, based on characteristics of individual companies are biased). Due to these differences it means that inferences cannot be made by simply scaling the results, but level analysis can be representative of the population[25].

5.13 It can be seen from Table 6c that for companies with fully reported values, employment has approximately 10% more small companies but 10% fewer large companies, compared to the estimates using gross assets. This may suggest that size by employment and size by gross assets would not be good proxies for one another. The results for turnover generally lie between the values for employment and gross assets. This may have implications, for example, using the IDBR in size analysis as a proxy for FAME. The IDBR only has employment and turnover information, not gross assets. However it is worth recalling that this comparison is using analysis from the subset of the FAME population (Table 6c) reported in Table 6a.

[24] Please note that all Tables referenced in the text can be found in appendix B

[25] i.e. you are not able to gain direct comparisons because the main dataset has many missing values, but inferences can be made, as proportions can be compared.

5.14 Table 9 shows the level of company activity for those observations that had fully reported values for the three factors. This table has little difference to that of Table 7, which is for the full population. The only significant difference is that there are very few companies that have fully reported values that are classed as live but inactive and non trading. This would make sense as such companies are less likely to submit full accounts and therefore would not show up in this sample of the population. However it is possible to have full information for these companies as it may refer to the last available period, which may not reflect the current status of the company.

Table 9: FAME level of company activity for those observations that had values for each of the three factors (May 2007)

Level of activity	No of companies (000's)	Percent
Active – Live	72	73.7
Inactive - Live Non-Trading	2	0.87
Inactive – Other	25	25.44
Total	97	100

A comparison of size bands (full population and subset where FAME has values for all three variables)

5.15 Table 6a only shows the overall numbers in each size band. An important question concerns how effectively each size band can act as a proxy for another. For example, **if** employment and gross assets are good proxies at the level of a specific company, then the lack of information on employment would be less important.

5.16 Tables 10a to 11c shown below and in Annex B show the results of tabulating, at the company level, each of the size rankings against the other. For simplicity, the diagonal elements (where both measures agree on the company's size) are highlighted. Tables 10a to 10c comparing employment levels to turnover and gross assets and gross assets to turnover are set out below as an example of the result of this analysis.

Table 10a: Comparing employment and turnover size bands (FAME, May 2007)

	Company size bands for turnover %				
Company size bands for employment	**Small**	**Medium-sized**	**Large**	**0 value**	**Missing value**
Small	2.39	0.30	0.07	0.01	1.11
Medium	0.27	0.54	0.23	0.00	0.34
Large	0.01	0.09	0.40	0.00	0.04
Missing value	16.69	0.17	0.07	0.55	76.73
Total	2,274,059				

Table 10b: Comparing employment and gross assets size bands (FAME, May 2007)

	Company size bands for gross assets %			
Company size bands for employment	**Small**	**Medium**	**Large**	**Missing value**
Small	2.95	0.55	0.23	0.09
Medium	0.30	0.71	0.36	0.00
Large	0.02	0.08	0.44	0.00
Missing value	68.99	1.34	0.90	22.78
Total	2,274,059			

Table 10c: Comparing gross assets and turnover size bands (FAME, May 2007)

	Company size bands for turnover %				
Company size bands for gross assets	**Small**	**Medium**	**Large**	**0 value**	**Missing value**
Small	17.55	0.20	0.01	0.33	54.17
Medium	0.60	0.61	0.10	0.00	1.37
Large	0.26	0.28	0.65	0.00	0.73
0 value	0.74	0.00	0.00	0.21	21.92

Missing value	0.20	0.00	0.00	0.02	0.03
Total	2,274,059				

5.17 In all cases, the figures are dominated by missing values. However, where both figures do exist for a company, it is clear that the two measures broadly agree. This is particularly true for small and large companies; medium-sized companies are least likely to have agreement on both measures. This could be simply due to being the "middle" category as opposed to an "extreme" classification.

5.18 Whilst it may seem reasonable to infer that one factor is a good (on average unbiased) proxy for another, they also demonstrate some biases: for example, there is some evidence that employment underestimates company size when compared to gross assets (Table 10b), and that turnover overestimates in comparison to assets (Table 10c). However, given the large number of missing values, this may not be representative of the entire population.

5.19 Part of this difference may be due to sectoral differences (for example capital intensive or labour intensive industries). For example, the consultancy or financial services industries would see a large divergence between the three measures; manual services might see a similar difference but in the opposite direction. FAME itself estimates employment and turnover size bands using gross assets adjusted for industry-specific effects. However these are not analysed here, partly because this would attenuate the results and give a misleading impression of consistency. A comparison between employment and asset banding, for instance, is not valid if the employment band has been generated from the asset figures. Off-diagonal values might indicate mis-classification by one measure, but they could easily be the result of FAME's industry-level imputation strategy.

5.20 The ONS uses similar industry-based methods in its sampling and analysis, in common with other NSI's and analysts. It would be interesting to analyse the effect on regulations on using NSI's and analysts results, however this is outside the scope of this project.

5.21 Table 11a shows the same information as Table 10a but for the fully reported subset. These results are broadly similar, except that the gross assets figure is not dominated to the same extent by small firms. This would seem to support the idea that in the population as a whole any size measure will give much the same result.

Company size - dynamic verses static data

5.22 Company Law states that a company must display a change in size in two consecutive years in order to change its formal identification as being of a

particular size[26]. For example take a company considered to be small in terms of turnover and employment, but medium in terms of gross assets. If for two consecutive years its turnover increased, to a level that it would be considered a medium company; then after these two years the company would be considered to be medium sized, as turnover would be medium, employment would be small and gross assets would also be medium.

5.23 Whilst this provides a transitional period, it is a complex calculation to carry out, and so a natural question arises as to how important this is and is a single-year estimate a reasonable proxy? The next set of analysis compares company size in a static period to that of a dynamic period of two years to try to identify whether the effort involved in full dynamic analyses is justified.

5.24 For this analysis two time periods are studied: 2002-2003 and 2004-2005. The information contained in this period has been gained from a version of FAME taken in March 2006 (referred to as FAME06). This file contained historic accounts information, while the FAME07 file is a static view of the FAME dataset at the time of capture and therefore unusable in terms of dynamic analysis.

5.26 The analysis of the two year period is undertaken by taking the mode (most common) of non-missing company size for the two given yearly periods[27]; should there be a difference between periods, the smaller company size will be chosen on the assumption that companies are aware of the advantages of the lower regulation burden associated with smaller companies. This does bias the analysis somewhat as if a company changes size in an upward direction in the second period, this analysis will report it to be the smaller size, i.e. the first period, hence not record any change. Therefore rounding boundaries suggests more agreement between the single and two year periods than is strictly correct.

5.27 Tables 12a to 15c below and in Annex B show the results of comparing company size for a one year (2003, 2005 respectively) period with that of a two year period (2002–3, 2004–5 respectively) for each of the size variables, and for each of the samples (full and fully reported only). The ideal result is to have a large percentage of the population where both the single year and the two year period report the same company size, as with the analysis of multiple factors in

[26] To be defined as small a company must meet 2 of the following criteria for 2 consecutive years ; turnover not more that £5.6M, Balance sheet total (assets) not more than £2.8M and employees not more than 50.
To be defined as medium-sized a company must meet 2 of the following criteria for 2 consecutive years; turnover not more that £22.8M, Balance sheet total (assets) not more than £11.4M and employees not more than 250.
(Thresholds up to March 2008, see table 4a for further detail)
To be eligible to be exempt from the statutory requirement to have an audit a company must be small and meet the criteria in respect of turnover and balance sheet total for 2 consecutive years. For further illustration see Table 4c, Annex B.

[27] The mode of two observations.

the previous section. Tables 12a to 12c are set out below for example.

Table 12a: Company size by employment comparing a static year to a two year period (FAME 2002-2003)

Employment 2002-2003 %				
Employment 2003	**Small**	**Medium**	**Large**	**Missing values**
Small	6.00	0.00	0.00	0.01
Medium	0.14	2.22	0.00	0.00
Large	0.01	0.05	0.85	0.00
Missing values	0.73	0.10	0.03	89.86
Total	2,047,190			

Table 12b: Company size by turnover comparing a static year to a two year period (FAME 2002-2003)

Turnover 2002-2003 %					
Turnover 2003	**Small**	**Medium**	**Large**	**0 value**	**Missing value**
Small	22.08	0.00	0.00	0.00	0.03
Medium	0.19	1.63	0.00	0.00	0.00
Large	0.01	0.09	1.12	0.00	0.00
0 value	0.09	0.00	0.00	0.22	0.00
Missing value	2.87	0.11	0.04	0.08	71.43
Total	2,047,190				

Table 12c: Company size by gross assets comparing a static year to a two year period (FAME 2002-2003)

Gross assets 2002-2003 %					
Gross assets 2003	**Small**	**Medium**	**Large**	**0 value**	**Missing value**
Small	54.77	0.00	0.00	0.00	0.03
Medium	0.33	2.91	0.00	0.00	0.00
Large	0.01	0.12	2.26	0.00	0.00
0 value	0.11	0.00	0.00	0.37	0.00
Missing value	1.94	0.09	0.07	0.05	36.92
Total	2,047,190				

5.28 Results are again dominated by missing values. However, where there are observable values the size of a company in a yearly period can be used as a proxy for the company size in a two year period, as the vast majority of these observations are the same between the two variables. Observations are much more concentrated on the diagonal than for the combined factor analysis. The only significant off-diagonal term suggests that firms counted as "medium sized" in a single-year might be small when measured on a multi-year basis. This effect only occurs for the full sample (Tables 12 and 14) but not the fully reported sample (Tables 13 and 15). This may indicate some instability in the classification of smaller firms with minimal reporting requirements.

Analysis of companies that are considered small for two factors and large for one factor

5.29 At present a company that is small on two of the factors and large on one is still classed as being small. An example of such a company would be a home-based consultancy that has few employees and negligible assets but high turnover.

5.30 A brief analysis suggests that the issue is small. There are roughly two thousand companies for which this is the case. The vast majority of these are live private companies who provide full accounts. Hence the answer seems to be that the companies themselves act as if they are large, which perhaps contradicts assumptions about downsizing firms who have different classifications depending upon the measure.

5.31 It is also possible that these two thousand companies largely consists of holding companies and other financial structures, rather than a particular class of economic activity[28]. Unpicking group accounts is not straightforward and so this analysis has not been carried out at this point. This area could be considered for further development.

Company size compared to other factors

5.32 This section compares company size, derived from the company size variable in Table 5 above with other factors such as companies' level of activity, company status, the type of accounts a company produces and the legal form a company takes. Tables 16-18 in Annex B show results for the full dataset and 19-21 the same information for the fully reported sample. Tables 16a and 16b shown below provides an example of the information provided.

[28] Under the Companies Act a company which qualifies as small may submit abbreviated individual accounts even if part of a large group, unless it is the parent company of the group. If it is the parent company it cannot qualify as small unless the group headed by it qualifies as small(see section 382 and 383 Companies Act 2006)

Table 16a: Size compared to the legal form of a company (FAME, May 2007)

Company Size (no of observations 000's)					
Company's legal form	0 values	Small	Medium	Large	Total
Private Limited	496	1,606	54	26	2,181
Guarantee	4	59	2	1	65
Public, Not Quoted	1	5	2	2	10
Limited Liability Partnership	1	8	1	0	10
Unlimited	1	3	0	1	5
Public AIM	0	0	0	0	1
Limited Partnership	0	0	0	0	1
Public, Quoted	0	0	0	1	1
Industrial/Provident	0	0	0	0	0
Public Investment Trust	0	0	0	0	0
Public Quoted OFEX	0	0	0	0	0
Royal charter	0	0	0	0	0
Total	502	1,681	60	31	2,274

Table 16b: Size compared to the legal form of a company for companies considered live and that have filed accounts since 2005 (FAME, May 2007)

Company Size (no of observations 000's)					
Legal form	0 value	Small	Medium	Large	Total
Private Limited	323	1,168	45	23	1,560
Guarantee	3	52	2	0	57
Limited Liability Partnership	1	7	1	0	9
Public, Not Quoted	1	3	1	1	7
Unlimited	0	1	0	1	3
Public AIM	0	0	0	0	1
Public, Quoted	0	0	0	1	1
Limited Partnership	0	0	0	0	0
Industrial/Provident	0	0	0	0	0
Public Investment Trust	0	0	0	0	0
Public Quoted OFEX	0	0	0	0	0
Royal charter	0	0	0	0	0
Total	328	1,233	50	27	1,638

5.33 The results shown in Tables 16 are generally as expected and so we will not discuss in detail here. Broadly:

- large and medium companies are almost solely private limited companies
- The majority of companies that are not private limited are small, however this is an insignificant amount, the vast majority of small companies are in fact private limited
- not submitting full accounts is a strong indicator that a company is small (98% of companies, if those with a zero value are also classed as small companies), although
- submitting full accounts is *not* a good reason for assuming that the company is not small (77% of companies that have submitted full accounts are small, if those with a zero value are also classed as small)
- large companies are more likely to be live (about 83% versus 73% for small), although this is perhaps not as different as might be expected
- Using only fully reported companies attenuates results further, suggesting that these are a different group (Tables 19 and 20)

6 Analysis of micro and small company employment

6.1 Analysis of micro and small companies is an area of growing interest. These companies are often seen as the engine of growth, at least in employment; yet these are also companies where it is thought that "red tape" is a barrier to growth and profitability; and where changes in regulation would have a great impact upon the classification of the companies within these bands, and subsequent regulatory requirements.

6.3 At present there is no definition of a micro company in the Companies Act. One commonly used definition of a "micro"[29] company is based on employment. A "small" company is one that has less than fifty employees; a "micro" company is deemed to be one with less than or equal to ten. Table 22 shows the number of micro companies and employment shares as a percentage of small companies and as a percentage of all companies reporting employment. Of the 131 thousand companies that have a value for employment, almost 45% are micro companies; micro companies account for two-thirds of companies in the under-50 employment sector. Changes in regulations relating to "micro" companies could affect a large number of companies currently classified as small.

[29] CLG 2007

Table 22a: Micro size analysis (FAME, May 2007) fully reported

Employee Nos.	Size	Companies	Percentage of companies		Percentage of employment	
		000s	Small Companies	All Companies	Small Companies	All companies
1	Micro	11	12.64	8.38	1.07	0.04
2	Micro	15	17.24	11.7	3.00	0.11
3	Micro	7	8.05	5.65	2.17	0.08
4-5	Micro	10	11.49	7.67	4.34	0.15
6-10	Micro	13	14.94	10.03	9.89	0.35
11-50	Small	31	35.63	23.88	79.52	2.80
51-250	Med.	31	N/A	23.36	N/A	11.74
251+	Large	12	N/A	9.32	N/A	84.75
Total		131				

Table 22b: Micro size analysis for companies (IDBR, December 2007)

Employee Nos.	Size	Companies	Percentage of companies		Percentage of employment	
		000s	Small Companies	All companies	Small Companies	All compani
0		35	N/A	1.93	N/A	0.00
1	Micro	775	45.91	42.79	10.70	0.31
2	Micro	327	19.37	18.06	9.02	0.26
3	Micro	119	7.05	6.57	4.92	0.14
4-5	Micro	145	8.59	8.01	8.71	0.25
6-10	Micro	155	9.18	8.56	16.16	0.46
11-50	Small	167	9.89	9.22	50.48	1.45
51-250	Med	48	N/A	2.65	N/A	2.05
251+	Large	40	N/A	2.21	N/A	95.08
Total		1,811				

6.4 On the other hand, the weighted employment figures tell the opposite story. Micro companies account for less than 0.75% of total employment, and barely 20% of employment in the small/micro sector. Hence, changes in regulation may affect many firms but their economic impact might be negligible.

6.5 In fact these figures are likely to underestimate the economic impact [30] Only firms which have recorded employment are included here. It is reasonable to assume that, the smaller the firm, the less likely it is to have recorded employment. Hence, micro firms are more likely to be omitted from the table than larger firms. However, it is clear that there would have to be a very significant amount of employment in micro firms to make a significant dent in their relative weight (within this table there are currently 25 million employees within the 12,000 observations of large companies and 213,000 employees within the 56,000 observations of micro companies)[31].

6.6 The total number of employment for this dataset is a little over 29 million, which can be considered to include the vast majority of UK employment. Between May – June 2007 ONS states that there was a little over 29 million people employed in the UK economy[32].

7 Churn Analysis

7.1 The churn analysis looks at the changes in the FAME dataset between two periods and should reflect the movement of companies onto and off the register. This could provide insights into growth or reductions within companies of a certain size, type or industry. Generally, looking at churn in company numbers on FAME is difficult because it does not indefinitely include information on dead companies. This analysis attempts to get round this by exploiting both the FAME06 and FAME07 dataset; each is snapshot of FAME taken roughly a year apart.

7.2 This analysis should effectively show the number of companies that were either created or died between these periods, but due to the nature of the data this is not the case. Whilst registration is a requirement of setting up a new company, the register will not be amended to reflect the fact that it has ceased to

[30] There are 1.5 million observations classed as being live, if it is considered that 80% of these companies not reported within Table 22a are with regards to micro firms (under the basis that due to current regulations the vast majority of large and medium companies should have a reported value for employment) and if each of these had one employee (therefore not taking into account the likelihood that a micro company may have up to ten), then there is over a million extra employees within micro companies. While this is not massively significant compared to the current reported number of employment in large companies (25 million) it would have a significant economic impact.

[31] Again it is worth noting that double counting exists within the large firms due to accumulated accounts and the inclusion of foreign workers, which solely and/or typically only occur within larger companies.

[32] http://nswebcopy/downloads/theme_labour/employment.pdf

exist or of a change in status, unless the company in question notifies the registrar. Therefore while the number of companies newly created between the 2006 and 2007 datasets may be quite accurate, the death of companies is likely to be less accurate and limited to those notified to CH.

7.3 The results for the churn analysis are shown in Table 23a. They indicate that considerably fewer companies (56 thousand) were removed from the system within this period than the 800 thousand that were added. It is unclear if this is a realistic number of new companies. This high number could be due to a difference in the extraction of information from the FAME database. A difference in extraction could mean that one dataset may have included or excluded certain observations depending on the purpose of that dataset's creation. Therefore until it can be determined that the two datasets used have been extracted in the same manner, the accuracy of the churn analysis cannot be ascertained. This could be revisited in the future when a new annual dataset is constructed on the same basis as the 2007 dataset[33]. There will be bias with regards to showing an ever increasing population, which is due to a time lag that occurs due to FAME removing records within ten years of a company dying. However if the number of deaths are consistent over time, then the bias will be limited.

Table 23a: Churn analysis between FAME06 and FAME07 datasets (2007 dataset removing foreign companies and those that have never filed accounts)

Churn	Number of observations (000's)			Percent
	2007	2006	Total	
2007 only	867		867	37.22
2006 only		56	56	2.39
In both 2006 and 2007	1,407	1407	1,407	60.39
Total	2,274	1463	2,330	100

[33] Annex L is a table showing the churn analysis for data held within CH.

8 The Reconciliation

8.1 Part of the project is designed to see how the different company reference sets held by ONS and CH can be reconciled. This section describes briefly the reconciliation process and some key results. Annexes E and F describe the process in more detail.

8.2 The ONS dataset used for this is the Business Structure Database (BSD), a longitudinal database constructed from annual snapshots of the IDBR. It contains all the basic IDBR information, plus some demographic variables.

8.3 All CH numbers are supplied to ONS. ONS matches these to its own register of businesses. For most companies, a link is made to an Enterprise, ONS' core unit of record. For non-corporate businesses, the IDBR enterprise has no CH numbers associated with it. For a relatively small number of CH references no enterprise exists or is created; these are companies where ONS does not expect an economically active unit to arise. The project was supplied with a CRN-enterprise reference lookup table generated in December 2007. This file includes all references, dead or alive, supplied to ONS. This file is referred to as a CRN-ENTREF file.

8.4 As noted in section 2 above, HMRC micro-data is not available for this project, so it was not possible to cover all aspects of the circle shown in Figure 1.

8.5 A merger between these datasets took place and the results are documented in Tables 24 and 25, showing a link between FAME 2007 and the BSD 2002 – 2007 and linking FAME07 to a single year BSD 2007.

8.6 The CRN ENTREF file contains observations of all companies and enterprises ever recorded on the IDBR; it appears that almost 30% of all the observations (and 40% of all the CH references) do not link to enterprises (BSD) or FAME. An examination of a sample suggested that these companies are long dead or dormant and would have been removed from FAME and the IDBR[34]. As this will bias the results of the linking of FAME and BSD, where an observation is only in the CRN ENTREF file it will be discounted from this analysis.

8.7 Tables 24 and 25 show that FAME and the BSD could be linked for about a third of the population in both multiple period and single year merges (33% and 34% respectively):

[34] The IDBR acknowledges dead companies within 2 years of their death, while FAME removes companies within 10 years of their death. The long dead companies mentioned here are those that have been dead prior to 1997, thus 10 years prior to the current population used.

Table 24: Results of linking FAME to the BSD for the total observable periods (FAME 2007 – BSD 2002-2007)

Merges	Number of observations (000's)	Percent	Percent not including CRN only
BSD only	2,148	26.68	37.57
BSD+CRN	227	2.82	3.97
CRN only	2,335	28.99	
FAME+BSD	1,864	23.15	32.60
FAME+CRN	1,479	18.36	25.87
Total	8,053	100	

Table 25: Results of linking FAME to the BSD for a one year period (FAME 2007 – BSD 2007)

merges	Number of observations (000's)	Percent	Percent not including CRN only
BSD only	**1,751**	**22.88**	**33.60**
BSD+CRN	**117**	**1.53**	**2.25**
CRN only	**2,444**	**31.93**	
FAME+BSD	**1,796**	**23.45**	**34.47**
FAME+CRN	**1,547**	**20.21**	**29.69**
Total	**7,656**	**100**	

8.7 It is also clear that a large proportion of the observations in the BSD could not be matched to FAME (41%and 36% respectively) [35], however this can be expected as the BSD looks at businesses not companies; therefore this proportion should reflect the number of non incorporated businesses in the UK.

8.8 The smallest percentage of observations relates to where FAME cannot be matched to the BSD (26% and 30% respectively)[36], which in comparison are not particularly large, but these are harder to explain as theoretically the BSD should contain all companies. It could be that there is a time lag that results in

[35] From the percentage not including CRN only column, BSD only plus BSD CRN only. Hence the percentage of observations that were in the BSD that did not match to FAME.
[36] From the percentage not including CRN only column, the FAME CRN row.

these companies getting acknowledged in the BSD at a later date; attempts to reproduce this analysis showed that the timing of data updates had a significant impact on how matches appeared. For an example, the information in Tables 24 and 25 can be compared with the tables in the first project report, which used link files and dataset spread across three years

8.9 Analysis of the merger has been produced with regards to:

- Size analysis of merge results
- Type of accounts submitted by a company by merge results
- Company status and activity by merge results

8.10 More information about the linking can be found in the annexes.

9 IDBR analysis

9.1 Much of the analysis carried out on FAME was also carried out on the IDBR. This is not described here, as the publicly-available FAME is the focus of interest. However, the results of the IDBR analysis are broadly similar to the FAME analysis. Some details are available in the annexes. For more information the authors can be contacted.

10 Conclusion

10.1 This report looked at FAME as a source of information on company size and activity, triangulating this with information from the IDBR. It concentrated on the raw data, rather than using the fully-imputed dataset which FAME can provide, to see what story the actual reported data could tell.

10.2 The general conclusion is that FAME is a reliable source of information on company size, and the values generated are relatively robust to the specific measures being used. The percentages of companies attained from single-year, single variable analysis result in an impact on regulation similar to much more complex modelling of company size. Hence the overall trend provided by the observations within FAME that do have values, is in line with that of more complex analysis.

10.3 A similar analysis of IDBR information using two variables, not reported here, shows a similar story. This therefore seems a relatively robust finding.

10.4 However the lack of full information in FAME appears, on the face of it, a problem with regards to actual amounts and more detailed analysis. However, the characteristics of companies reporting make this less of an issue. The analysis of micro firms by employment showed that, although the vast majority of firms have no reported value for employment, those that do account for almost all

employment in the economy. A comparison with the fully reported IDBR shows this to be the case: small companies (under 10 employees) account for 95% of companies, but under 3% of employment.

10.5 This ability to triangulate FAME and the IDBR is important because of the number of missing values in FAME. However a direct reconciliation of the two datasets is not easy as less than half of the observations within FAME matched to the IDBR: time lags, different definitions, different removal of dead companies, different reporting structures all make one-to-one reconciliation extremely difficult. Hence, results from the IDBR and FAME should perhaps be seen as consistent and supporting but not directly comparable.

10.6 The consistency of results matters because FAME is publicly available; the IDBR is only available through the ONS microdata laboratory or in certain government offices. This does increase the transparency and reproducibility of analysis.

10.7 The lack of direct comparability is a problem. There is potentially a large gain from combining ONS business datasets with FAME's data[37], but the results presented here suggest this is not useful. However, these preliminary results look at the whole dataset; they do not breakdown to identify where subsets of linked data might have a role to play.

10.8 To summarise:

- On its own, FAME quite consistently classifies company size
- This can be triangulated with the IDBR if population parameters and estimates are required
- However the two datasets cannot be aligned correctly

10.9 This report has shown up a number of areas for further work which has not been possible to cover in the time[38]:

- analysis of the FAME-imputed size bands
- analysis of the company characteristics for the fully-reported subsample
- a direct comparison of the "live-ness" status of companies in the two datasets and how that affects linking
- further investigation into the characteristics of companies that do link
- attempt to decompose group accounts on FAME
- investigation into instability in the classification of smaller firms with minimal reporting requirements between periods
- to look at potential uses of the differing approaches of population
- future linking between FAME and the IDBR; does the level of matching change over time; for example, does collecting the data sets at a closer

[37] Such as using fully imputed values for variables from IDBR alongside FAME data
[38] Ensuring that the versions of FAME used in the future are consistent with one another

point in time significantly affect the results? This could lead to more consistent population estimates between the two datasets

- further study into whether there are any subsets of companies, appearing in both FAME and the IDBR, that show any consistency in values for employment and turnover
- analyse how the actual size of a company is determined by the individual factors, with regards to the use of judgement.

Annex A

UK Company Statistics Reconciliation Project

Draft Project Brief

Project name	Company Statistics Reconciliation
Prepared by	Felix Ritchie
Prepared	20th September 2007
Project Codes	xxx (VML) yyy (ONS Finance)

Version summary

No.	Date	Status or change	Sections	Incorporated by	Acceptance authority
d1	20.9.2007	Draft			Project Sponsor
v1	3.10.2007	Final; amended to reflect comments from BERR			Project Sponsor

1. Objective

1.1 Background

The numbers and type of economic operations in the UK is important for policy makers. Two of the key reasons for government interest are

- the ability to assess the impact of regulatory changes
- the desire to identify where and how change in the business economy occurs

This is complicated by the difficulty of obtaining a consistent view of the business economy. Major data sources are

- ONS' Inter-departmental Business Register
- HMRC's registers of taxable entities
- Companies House's list of legally registered companies
- Accounting information for public companies, made accessible through value-added resellers (VARs)
- Directories maintained by VARs as a business service
- Other registers, records and databases maintained by official bodies for their own administrative purposes

For a comprehensive review of different data sources, see Dugmore (2007).

Each data source has different coverage, and no single source provides an inclusive overview. Sources of the difference in coverage include

- "businesses" versus "companies"
- the importance of significant economic activity
- public versus private companies
- legal status
- operational structure
- reporting structure and requirements

- the level of geographical detail
- ownership structure

Attempts to build a comprehensive list of legal and economic entities are being pursued within government, but the proposal is for a long-term strategic development and the scope of the project is still being determined. Hence this will not deliver a list of businesses or companies in the medium term.

The Department for Business, Enterprise and Regulatory Reform (BERR) has offered to make funds available to support a small-scale project to reconcile different data sources, so that policy-making can be carried out without the need to fully integrate different data sources. The project will focus on legal units, rather than economic activity. Whilst one of the project objectives will be to build a dataset for analysis, a key outcome will be methodological work to allow ongoing analysis of business data to be carried out with an awareness of the impact of using different data sources. Michael Clary from the Department's Strategic Policy Analysis Unit has already produced information and initial documentation covering the population and main characteristics of the population of UK Companies. This information was produced to show how changes in the criteria set out in the Companies Act to define small, medium-sized and large companies would affect the population of UK companies. This work will provide the basis for establishing a methodology and documentation of the population of companies in the UK.

As well as BERR, it is anticipated that the results of the project will be of significant interest to

- HMRC
- ONS (Business Registers Unit)
- ONS (Virtual Microdata Laboratory (VML) research services)
- Others in BERR e.g. Enterprise Directorate

Hence the project will seek to engage these stakeholders.

1.2 Business objectives

To develop a clear understanding of the numbers of companies in the UK, for use by BERR and other stakeholders in a wide variety of policy and other debates. The information will also be useful in respect of the Better Regulation initiative and the consequent need to do robust Impact Assessments. In the immediate future, this information will be useful in arriving at more accurate assessments of the numbers of companies likely to be affected by changes in regulations and simplification plans.

The EU simplification programme will lead to a fundamental review of the Accounting (4th and 7th) Directives and the Company Law Directives between now and the end of 2007/08, in order to give consideration to the deregulation of audit and accounting requirements. This offers the potential for large cost savings to business but needs to be assessed against potentially substantial economic risks. The information obtained from this project will be used to assess these risks.

In terms of BERR's strategic priorities and business objectives, this project will contribute to the Corporate and Insolvency Activity Framework. In particular it is an essential part of the sub-objective "EU actions to improve the operation of capital markets, promote market liberalisation in the interests of companies and investors and to reduce regulatory burdens". Thus the proposed project has the potential to respond to better policy-making principles, by investigating the effects of removing or lightening regulatory requirements in relation to audit and accounting for a significant number of UK companies.

The success criterion will therefore be BERR's ability to provide improved analysis of the state and nature of the economy and the impact of regulatory changes.

1.3 Project objectives

The project objectives are as follows:

Objective	Success criteria
Develop an estimate of the scope of company activity within BERR's sphere of interest.	Report identifying differences in the coverage of the major data sources on company information
Develop an appropriate framework for reconciling analyses for different sources	Report identifying methodological steps to be made to reconcile alternative estimates
Create a dataset for use by BERR for policy purposes, with software/methods fully documented to allow results to be reproduced in the future	Dataset accessible by BERR staff with documentation on variables, and methods
Create a research dataset for ONS, academic and government researchers, with software/methods fully documented to allow results to be reproduced in the future. This data should be linked to existing Virtual Microdata Laboratory (VML) research datasets as far as possible and as far as licensing allows.	Dataset lodged in the VML with appropriate fields to link to other VML datasets, particularly (a) the Business Structure Database and ARD2 links (b) DTI reference numbers (c) Companies House numbers
Support additional research on company/business activity	Agreed statement on management of access to the VML dataset, which the VML team will operate

1.4 Project scope

The scope of the project is

- to document the methodological and coverage differences between the different data sources
- to establish the number of companies in the UK split across a variety of categorisations, including but not necessarily restricted to:
    - small, medium, large sizes (and subsets thereof)
    - public vs. private companies
    - audited vs. audit exempt
    - abbreviated vs. full financial reports
    - the share of the national economy by firms with differing characteristics (e.g. proportions of GDP, UK imports, UK exports represented by the above groups)
- to create a dataset for further analysis, with supporting documentation

1.4.1 Scope inclusions

Included in the scope of the project is all information on company activity held by government departments. In terms of work packages, the scope includes analysis on productivity arising out the data review process.

1.4.2 Scope exclusions

Excluded from the scope of the project is a more general work on economic units. However, because there is not a clear-cut definition of "companies", then one of the early aims of the project will be to refine the definitions in line with the definition in the Companies Act 2006.

Annex B

Tables used in the Report

Table 1: Company size compared to company legal form and accounts type (FAME 2007)

		Company Size (no of observations 000's)			
Company's legal form	**0 values**	**Small**	**Medium**	**Large**	**Total**
Private Limited	496	1606	54	26	2181
Guarantee	4	59	2	1	65
Public, Not Quoted	1	5	2	2	10
Limited Liability Partnership	1	8	1	0	10
Unlimited	1	3	0	1	5
Other	0	0	0	0	1
Public, Quoted	0	0	0	1	1
Total	502	1681	60	31	2274
		Company Size (no of observations 000's)			
Type of Company accounts filed	**0 values**	**Small**	**Medium**	**Large**	**Total**
Dormant	369	71	3	2	445
Full accounts	17	158	33	20	227
Group	0	5	6	7	19
Other	0	4	1	0	5
Medium Company	0	5	4	0	9
Small company	4	96	10	1	111
Exemptions	111	1342	3	0	1456
Total	502	1681	60	31	2274

Further information and analysis regarding and using the overall size band will follow later in this report.

Table 2: Company size by employment (FAME, May 2007)

Employment	Size	Companies	Percentage of companies		Percentage of employment	
		000s	Small Companies	All companies	Small Companies	All companies
1-10	Micro	56	64.36	43.43	20.47	0.73
11-50	Small	31	35.63	23.88	79.52	2.8
51-250	Med.	31	N/A	23.36	N/A	11.74
251+	Large	12	N/A	9.32	N/A	84.75
Total		131				

Table 3: Defining companies within the datasets

No	IDBR	CH	HMRC	Type of company
1	√	X	X	Enterprises that are not registered as a company, exempt from VAT and do not have any employees, but have/had economic activity (IDBR also holds records of dead businesses). An example of this could be a sole trader or a partnership. It is also possible for government bodies or charities to be in this category
2	√	√	X	A company with no employees and not registered for VAT
3	√	√	√	A registered, active company, registered for VAT and/or pay PAYE
4	X	√	√	Inactive registered companies that are registered for VAT
5	X	X	√	Non registered enterprises who are VAT registered and/or pays PAYE, such as sole traders or partnerships but too small to be recorded on the IDBR. As a HMRC dataset has not been analysed at this time it is difficult to ascertain if this is a possible outcome. For while an enterprise may be VAT registered and/or pay PAYE, they would be active and therefore should also be included within the IDBR dataset.
6	X	√	X	Registered companies that are not active, who are not VAT registered and do not pay PAYE; an example of this would be a dormant company
7	√	X	√	Enterprise that have business activity, but are not registered companies; an example of this would be a sole trader or partnership
8	X	X	X	Those businesses that are not on any of the registers, for example sole traders who are not registered with companies house, for VAT or PAYE and too small to be recorded on the IDBR. The evidence that this exists and is significant comes from household surveys, such as the LFS[39], however it is not possible to assess this within the current dataset.

To further illustrate this point Figure 1 combines the three datasets, showing each of the eight possible outcomes from joining these data sources. Please note that this diagram is just for illustrative purposes; the size of the areas is not reflective of the number of entities/companies that it represents.

[39] Labour Force Survey

Figure 1: Physical representation of matching stated in Table 1

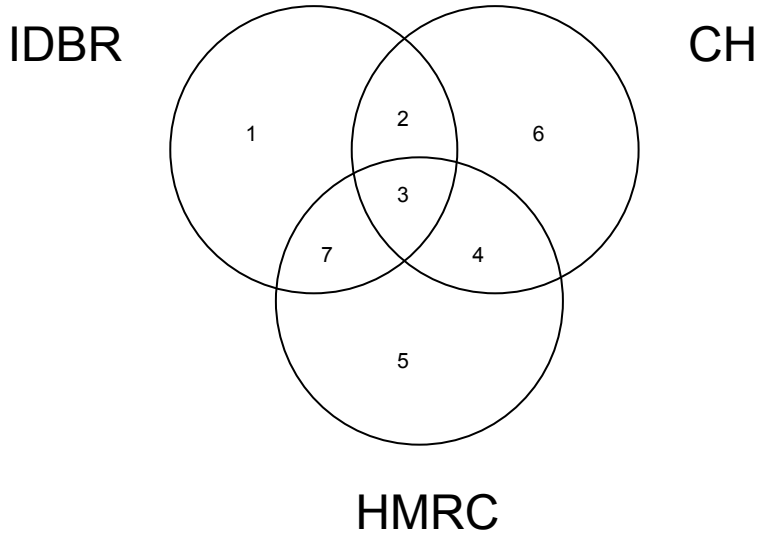


Figure 2 in the main report shows FAME's position within this diagram. Please note that neither of the diagrams are representing any sort of scale and are for illustrative purposes only.

Table 4a: Thresholds used to define Small and Medium-Sized Companies

	Financial Thresholds up to 31 March 2008			**Financial Thresholds from 01 April 2008**	
	Turnover (not more than)	Balance sheet total (not more than)	Number of employees (not more than)	Turnover (not more than)	Balance sheet total (not more than)
Small company	£5.6 million	£2.8 million	50	£6.5 million	£3.26 million
Small Group	£5.6 million net (or £6.72 million gross)	£2.8 million net (or £3.36 million gross)	50	£6.5 million net (or £7.8 million gross	£3.26 million net (or £3.9 million gross
Medium-sized company	£22.8 million	£11.4 million	250	£25.9 million	£12.9 million
Medium-sized Group	£22.8 million net (or £27.36 million gross)	£11.4 million net (or £13.68 million gross)	250	£25.9million net (or £31.1 million gross)	£ 12.9 million net (or £15.5 million gross)

Definition of Small and Medium-Sized Companies

Sections 382,383,465 and 466 of the Companies Act 2006 define small and medium –sized companies as those that meet 2 or more of the criteria above in their first financial year, or in the case of a subsequent year in that year and the preceding year:

Group Accounts

"Net" figures reflect the set-offs and adjustments required by Schedule 4A of the Companies Act 1985 or in the case of IAS accounts in accordance with international accounting standards.

"Gross" figures excludes those set-offs and adjustments (+20%)

Table 4b: Summary of Company size bands

Variable	**Small**	**Medium**	**Large**
Employees	< 50	50 < x < 250	>250
Turnover (million)	< 5.6	5.6 < x < 22.8	> 22.8
Gross Asset (million)	< 2.8	2.8 < x < 11.4	> 11.4

Table 4C: Companies House explanation of changes in size band

Year 1	Year 2	Year 3	Qualified in:
			1st financial year
small			Yes
not small			No
			2nd financial year
small	small		Yes
small	not small		Yes
not small	small		No
			3rd financial year
small	small	not small	Yes
small	not small	small	Yes
not small	small	small	Yes
small	not small	not small	No
not small	small	not small	No
not small	not small	not small	No

http://www.companieshouse.gov.uk/about/pdf/gba3.pdf

The above table may help you decide whether you qualify to prepare 'small' or 'medium' accounts.

The table applies to small companies. For medium-sized companies simply substitute 'medium-sized' for 'small'.

Table 5: An explanation of the overall size band

Size determinant	Individual factor size (X=no value)	Overall company size	No of observations, total population (000's)	Percent	No of observations active companies since 2005(000's)	Percent
0	XXX		502	22.09	328	20.05
1	SXX	Small	1241	54.56	928	56.63
2	SSX	Small	368	16.2	256	15.61
3	SSS	Small	47	2.07	30	1.82
4	MXX	Medium	23	1	20	1.2
5	MSX	Small	14	0.6	11	0.7
6	MSS	Small	9	0.42	6	0.4
8	MMX	Medium	6	0.25	5	0.31
9	MMS	Medium	8	0.34	6	0.36
12	MMM	Medium	8	0.35	6	0.38
15	LXX	Large	14	0.62	12	0.74
16	LSX	Medium	5	0.24	5	0.3
17	LSS	Medium	2	0.08	2	0.09
19	LMX	Medium	3	0.11	2	0.14
20	LMS	Medium	2	0.11	2	0.13
23	LMM	Medium	5	0.22	4	0.25
30	LLX	Large	2	0.07	2	0.1
31	LLS	Large	1	0.05	1	0.06
34	LLM	Large	5	0.24	5	0.28
45	LLL	Large	9	0.37	7	0.45
Total			2274	100	1,638	100

(* Please note that while the value 17 has been miscoded as a medium sized firm, when in actuality it should be a small firm, this value is not significant as it only relates to approx 2000 observations. The code for this has been corrected for future analysis)

Note: in the coding, the classification is achieved efficiently by using a base-4 enumeration. See coding documentation for details (Annex J).

It is worth while noting that within this analysis wherever there was only one observable value available that that value was used to determine the company size. Likewise, where there are only two observable values available the smaller of the two was chosen to represent company size.

Another worthy note is where all three values were present and have one factor small, one factor medium and one factor large, the company has been deemed to be a medium sized company.

Likewise if there were only two observable values one being small and another being large, then it has been considered that the company is actually of medium size. This may not be accurate as it could be considered that the missing value is in relation to a small company hence not reported.

A further limitation of this analysis is that missing values and zero values have been categorised the same, represented in Table 5 as an X. This assumes that zero values are mainly erroneous (in that they do not truly represent zero turnover or assets, for example). It could be argued that companies that have a zero value for a variable should be classed as small and not the same as missing values.

Methods of determining a company's overall size could be an issue for future analysis, but the effect of the noted errors have on current results is limited. Within the companies deemed active and have submitted accounts since 2005, (approx) 10,000 observations have a 0 value for turnover and have potentially been misclassified; although by looking at the distribution in Table 5 it is clear that the majority of observations with an X value are with regards to small companies, therefore actually very few have been misclassified.

Within this same sample of the population (approx) 337,000 have a 0 value for gross assets[40] and have potentially been misclassified; as with turnover the majority of these would be categorised as small anyway, furthermore many of these figures would have been taken from company registration forms, therefore may not reflect the current gross assets of that company.

This method is not as accurate as would be desired, but it is the best that can be achieved given the limitations of the dataset, the acknowledged errors and the seemingly grey areas where judgement has been used.

[40] This is most likely due to individuals who have registered themselves as a company, until recent years there was a tax benefit for individuals incorporating, as they could effectively get the individual tax allowance as well as the companies tax allowance for themselves.,. Also companies that are part of a group that do not submit cumulative accounts may not have any assets, e.g. a holding company.

Table 6a: FAME company size (May 2007)

	No of Companies by Employment (000's)	%	No of Companies by Turnover (000's)	%	No of Companies by Gross Assets (000's)	%
Company Size per size criteria						
Small	88	3.88	440	19.36	1,643	72.26
Medium	31	1.37	25	1.1	61	2.69
Large	12	0.54	17	0.77	44	1.92
0 value	0	0	13	0.56	520	22.87
Missing value	2,142	94.21	1,779	78.21	6	0.26
Total	2,274	100	2,274	100	2,274	100

Small, medium and large refer to the size according to Table 4a, the citeria used to define small, medium and large companies for accounting purposes.

0 value represents that a true zero value within FAME, not a missing value.

Missing value represents all the observations that did not have a value for the given factor.

It is clear by the number of observations that state a missing value that the FAME dataset is far from complete, in terms of reported values. The reason for this is due to the manner in which the data is collected.

FAME effectively takes the information from CH who attains the information from company accounts filed. Due to regulations companies have to legally submit a certain type of account depending on their size and nature (this is shown in further detail in Table 1). The information within these accounts will vary depending on this account type submitted. For example a small company (if it is not part of a group or operate within a certain sector) will only have to submit a balance sheet, which will not include figures for turnover and employment.

A company who is, for example, exempt from submitting accounts may submit full accounts (hence disclosing there full financials for the given year) but a firm who is legally required to submit full accounts may not submit say abbreviated accounts.

Therefore it would be appropriate to conclude that the missing values are mostly for small companies who are not legally required to submit this information.

Table 6b: IDBR company size (December 2007)

	No of businesses by employment (000's)	%	No of businesses by turnover (000's)	%
Small	**2,249**	**97.2**	**2,249**	**97.21**
Medium	**34**	**1.47**	**29**	**1.27**
Large	**9**	**0.38**	**11**	**0.49**
0 value	**22**	**0.95**	**24**	**1.03**
Total	**2,314**	**100**	**2,314**	**100**

The IDBR provides a good comparison for FAME company size with regards to turnover and employment as the IDBR has fully reported values for these two factors. It is important to note that the difference between the two datasets is that FAME looks at companies, while the IDBR looks at all business activity, corporate and non corporate. Table 6b and IDBR 10 show the results of the size analysis of all the observations within the IDBR and those observations in the IDBR considered to be companies.

The main point of note is that while the vast majority of the FAME population for these two factors is with regards to missing values, there are no such missing values within the IDBR. Considering the percentage of observations in each of the size bands between the two datasets can provide an insight into the size of the missing values within FAME.

The main difference between the two datasets is that the companies reported as small within the IDBR have the vast majority of observations (note this figure will also pick up the majority of non corporate business activity).

From this it could be suggested that the majority of the missing values within FAME are with regards to small companies.

Table 6c: FAME company size (May 2007) for those observations that had values for each of the three factors.

	No of Companies by Employment (000's)	%	No of Companies by Turnover (000's)	%	No of Companies by Gross Assets (000's)	%
Company Size per audit regulations						
Small	63	64.17	60	61.82	54	55.25
Medium	24	24.15	21	21.67	22	22.76
Large	11	11.67	16	16.22	21	21.3
0 value			0	0.3	1	0.69
Total	97	100	97	100	97	100

Table 8: FAME level of company activity (May 2007)

Level of activity	No of companies (000's)	Percent
Active – Live	1,545	67.94
Inactive - Live Non-Trading	149	6.54
Inactive – Other	580	25.52
Total	2,274	100

Table 9: FAME level of company activity for those observations that had values for each of the three factors (May 2007)

Level of activity	No of companies (000's)	Percent
Active – Live	72	73.7
Inactive - Live Non-Trading	2	0.87
Inactive – Other	25	25.44
Total	97	100

Please note that for the following analysis the areas shaded yellow are where both factors are the same, for example both factors reveal that an observation is small in each.

The desirable situation would be where the numbers marked yellow are larger than those neighbouring them.

The rest of the results remain black as these refer to situations with 0 or missing values, which are not of such interest. These values testify to the number of reported observations.

To illustrate this consider Table 10a, a comparison of company size between the company size bands derived from turnover and employment. It is clear that 76.73% of observations are missing in both factors, with a further 18.97% missing in one of the factors.

If the factors that have a value for both turnover and employment are to be considered (i.e. small to large on both axis) then this sub sample represents 4.3% of the total sample. Of this 3.3% relate to the diagonal values.

This signifies that out of the observations with a value for turnover and employment, the majority share the same company size for these factors. This in itself is not conclusive proof that these factors are a good proxy for one another. The key point is that the diagonals are larger than those around them. 0.4% of the sample is large in both turnover and employment; therefore it is desired that this figure is larger than when turnover is large, while employment is small or medium, or when employment is large and turnover small or medium. In this example the diagonal is larger than each of these other elements individually.

It would be beneficial to pursue further analysis upon the diagonals to try and find the optimal size bands where both factors completely agree with one another. To get 100% of observations within the diagonal is possible, but in order to do so, all the companies would have to be classified as small, as the current diagonals clearly show, there are observations where one factor is large and the other is small. What would be possible and beneficial for any future study in this area is to test how the diagonals could get closer to this optimal amount without showing a significant error. The trade off that is created from this situation is that by increasing the scope of one band you will be including more observations that should/could be graded in that band, but you would also be including more observations that should not be in that band.

The following Table is a summary of the diagonals contained in 10a to 15c. It shows the percentage of observations where both variables were small, medium or large. It also shows the total percentage within the size band (i.e. the percentage of observations where both factors have a value for size), which is

then used to generate the percentage of observations within the diagonal.

Table reference	Population	Variable 1	Variable 2	Small	Medium	Large	Total within size bands	Percentag within diagona
Comparing size bands to one another								
10a	Full	Turnover	Employment	2.39	0.54	0.4	4.3	77.44
10b	Full	Gross assets	Employment	2.95	0.71	0.44	5.64	72.70
10c	Full	Turnover	Gross assets	17.55	0.61	0.65	20.26	92.84
11a	Reported values	Turnover	Employment	55.67	12.37	9.28	100	77.32
11b	Reported values	Gross assets	Employment	50.52	12.37	9.28	98.97	72.92
11c	Reported values	Gross assets	Turnover	51.55	13.4	14.43	98.97	80.21
Dynamic verses static analysis, comparing single year data to data from two years								
12a	Full	Employment 02-03	Employment 03	6	2.22	0.85	9.27	97.84
12b	Full	Turnover 02-03	Turnover 03	22.08	1.63	1.12	25.12	98.85
12c	Full	Gross assets 02-03	Gross assets 03	54.77	2.91	2.26	60.4	99.24
13a	Reported values	Employment 02-03	Employment 03	59.44	26.05	12.36	100	97.85
13b	Reported values	Turnover 02-03	Turnover 03	57.94	22.5	16.15	99.85	96.74
13c	Reported values	Gross assets 02-03	Gross assets 03	51.06	24.02	21.53	99.94	96.67
14a	Full	Employment 04-05	Employment 05	3.73	1.18	0.5	5.46	99.08
14b	Full	Turnover 04-05	Turnover 05	20.81	0.95	0.66	22.49	99.69
14c	Full	Gross assets 04-05	Gross assets 05	50.71	2.03	1.31	54.22	99.69
15a	Reported values	Employment 04-05	Employment 05	62.75	23.2	13.02	100	98.97
15b	Reported values	Turnover 04-05	Turnover 05	58.96	22.86	16.45	99.85	98.42
15c	Reported values	Gross assets 04-05	Gross assets 05	52.34	24	22.04	99.92	98.46

Summary of Diagonal Terms

It is quite clear that when considering the diagonals for comparing size bands, 10a to 11c the comparison between gross assets and turnover (10c and 11c) has the largest percentage of observations within the diagonal. This would seem to be due to a greater percentage of large companies that were stated to be large within both variables.

The dynamic analysis comparing the size band of a company in one year compared to a two year period shows that all Tables (12a – 15c) show greater than 96% of observations within the diagonals.

Table 10a: Comparing employment and turnover size bands (FAME, May 2007)

	Company size bands for turnover %				
Company size bands for employment	**Small**	**Medium**	**Large**	**0 value**	**Missing value**
Small	2.39	0.30	0.07	0.01	1.11
Medium	0.27	0.54	0.23	0.00	0.34
Large	0.01	0.09	0.40	0.00	0.04
Missing value	16.69	0.17	0.07	0.55	76.73
Total	2,274,059				

Table 10b: Comparing employment and gross assets size bands (FAME, May 2007)

	Company size bands for gross assets %			
Company size bands for employment	**Small**	**Medium**	**Large**	**Missing value**
Small	2.95	0.55	0.23	0.09
Medium	0.30	0.71	0.36	0.00
Large	0.02	0.08	0.44	0.00
Missing value	68.99	1.34	0.90	22.78
Total	2,274,059			

Table 10c: Comparing gross assets and turnover size bands (FAME, May 2007)

			Company size bands for gross assets %		
Company size bands	**Small**	**Medium**	**Large**	**0 value**	**Missing value**
for turnover					
Small	17.55	0.60	0.26	0.74	0.20
Medium	0.20	0.61	0.28	0.00	0.00
Large	0.01	0.10	0.65	0.00	0.00
0 value	0.33	0.00	0.00	0.21	0.02
Missing value	54.17	1.37	0.73	21.92	0.03
Total	2,274,059				

It would seem that turnover and gross assets are better proxies for each other than employment and turnover.

Table 11a: Comparing employment and turnover size bands (FAME, May 2007) for those observations that had values for each of the three factors.

	Company size bands for turnover %			
Company size for employment	**Small**	**Medium**	**Large**	**0 value**
Small	55.67	7.22	2.06	0.00
Medium	6.19	12.37	5.15	0.00
Large	0.00	2.06	9.28	0.00
Total	97	(000's)		

In – between 76:22

Table 11b: Comparing employment and gross assets size bands (FAME, May 2007) for those observations that had values for each of the three factors.

	Company size bands for gross assets %			
Company size for employment	**Small**	**Medium**	**Large**	**0 value**
Small	50.52	9.28	4.12	1.03
Medium	5.15	12.37	7.22	0.00
Large	0.00	1.03	9.28	0.00
Total	97	(000's)		

Worst - 70: 25

Table 11c: Comparing turnover and gross asset size bands (FAME, May 2007) for those observations that had values for each of the three factors.

	Company size bands for gross assets %			
Company size for turnover	**Small**	**Medium**	**Large**	**0 value**
Small	51.55	7.22	2.06	1.03
Medium	3.09	13.40	5.15	0.00
Large	0.00	2.06	14.43	0.00
0 value	0.00	0.00	0.00	0.00
Total	97	(000's)		

Best - 78:16

The analysis shown in Tables 10a – 10c show that the size of a factor can act as a reasonable proxy for the size of another factor.

For example, when comparing gross assets with turnover (Table 11c) it is clear that half of the sample is considered to be small in both factors. This is not so much proof in itself but can be used by comparing this figure to those around it. Within this table 70.1% of the total sample state that the size of a company is small, this is considering where both factors are equal and for each set of observations where one factor deems the company size to be small. Therefore if 50.52% of the sample signifies where both observations are small, it could be suggested that the size of a company determined by gross assets can be used as a proxy for the size of a company by turnover 72% of the time.

Conditional Probabilities

Table reference	Population	Variable 1	Variable 2	Prob X is S	Prob Y is S	Prob X is M	Prob Y is M	Prob X is L	Prob Y is L
		X	Y	given Y is S	given X is S	given Y is M	given X is M	given Y is L	given X is L
Comparing size bands to one another									
10b	Full	Gross assets	Employment	79.09	90.21	51.82	52.99	81.48	42.72
10c	Full	Gross assets	Turnover	95.33	98.82	55.96	46.56	54.62	85.53
11a	Reported values	Turnover	Employment	85.71	89.99	52.17	57.14	81.83	56.22
11b	Reported values	Gross assets	Employment	79.04	90.75	50.00	54.54	90.01	45.00
11c	Reported values	Gross assets	Turnover	84.74	94.34	61.92	59.08	87.51	66.68

Determining the ability to use the size of a company by one factor as a proxy for a size of a company by another factor

The above Table shows the conditional probability of the given factors, showing for example, if factor X was small what would be the chance of factor Y also being small.

The populations for turnover and employment are sparse, therefore any results attained from comparing them may be misrepresentative of the larger population, therefore this analysis has only been undertaken on a comparison between gross assets and the other two variables for the full sample, but with all three variables for the restricted sample.

The analysis has been undertaken not including any values outside of the small, medium and large bands, so all missing or zero values have not been included.

The conditional probability is calculated by dividing the percentage where both factors X and Y are small, by the percentage where Y is small (and X is small, medium and large). Hence working out, given Y is small, the probability that X is also small.

The results clearly show that where employment or turnover are small, gross assets are likely to be small, while when gross assets are large, turnover and employment are likely to be large. However this is not the case when comparing turnover to employment as there is a much lower chance of employment being classed as large, if turnover is classed as large.

The conditional probability is smallest when comparing where the size band is medium. This could be expected, as if the small or large size band were to be considered, it is clear that if a company were to shift size bands they would move in only one direction. With the medium size band there are two possible movements, moving up to large, or down to medium. This effectively doubles the opportunity for the inability of using one factor as a proxy for another.

The following Tables show that conditional probability for each size band compared to variable for Tables 11a to 11c. As stated in the titles, these tables show the probability of size for factor X or Y, give factor Y or X is a given size bands.

	X Company size by turnover		
Y Company size by employment	**Small**	**Medium**	**Large**
Small	85.71	11.12	3.17
Medium	26.11	52.17	21.72
Large	0.00	18.17	81.83

CP11a: Conditional probability of size for factor X, given factor Y = small for a comparison of company size and turnover, for those observations that had values for each of the three factors

	X Company size by turnover		
Y Company size by employment	**Small**	**Medium**	**Large**
Small	89.99	33.35	12.49
Medium	10.01	57.14	31.27
Large	0.00	9.52	56.22

CP11a Conditional probability of size for factor Y, given factor X = small for a comparison of company size and turnover, for those observations that had values for each of the three factors

	X Gross Assets		
Y Company size by employment	**Small**	**Medium**	**Large**
Small	79.04	14.52	21.78
Medium	20.82	50.00	29.18
Large	0.00	9.99	90.01

CP11b Conditional probability of size for factor X, given factor Y = small for a comparison of company size and turnover, for those observations that had values for each of the three factors

	X Gross Assets		
Y Company size by employment	**Small**	**Medium**	**Large**
Small	90.75	40.92	19.98
Medium	9.25	54.54	35.01
Large	0.00	4.54	45.00

CP11b Conditional probability of size for factor Y, given factor X = small for a comparison of company size and turnover, for those observations that had values for each of the three factors

	X Gross Assets		
Y Company size by turnover	**Small**	**Medium**	**Large**
Small	84.74	11.87	3.39
Medium	14.28	61.92	23.80
Large	0.00	12.49	87.51

CP11c Conditional probability of size for factor X, given factor Y = small for a comparison of company size and turnover, for those observations that had values for each of the three factors

	X Gross Assets		
Y Company size by turnover	**Small**	**Medium**	**Large**
Small	94.34	31.83	9.52
Medium	5.66	59.08	23.80
Large	0.00	9.08	66.68

CP11c Conditional probability of size for factor Y, given factor X = small for a comparison of company size and turnover, for those observations that had values for each of the three factors

Table 12a: Company size by employment comparing a static year to a two year period (FAME 2002-2003)

Employment 2002-2003 %				
Employment 2003	**Small**	**Medium**	**Large**	**Missing values**
Small	6.00	0.00	0.00	0.01
Medium	0.14	2.22	0.00	0.00
Large	0.01	0.05	0.85	0.00
Missing values	0.73	0.10	0.03	89.86
Total	2,047,190			

Table 12b: Company size by turnover comparing a static year to a two year period (FAME 2002-2003)

Turnover 2002-2003 %					
Turnover 2003	**Small**	**Medium**	**Large**	**0 value**	**Missing value**
Small	22.08	0.00	0.00	0.00	0.03
Medium	0.19	1.63	0.00	0.00	0.00
Large	0.01	0.09	1.12	0.00	0.00
0 value	0.09	0.00	0.00	0.22	0.00
Missing value	2.87	0.11	0.04	0.08	71.43
Total	2,047,190				

Table 12c: Company size by gross assets comparing a static year to a two year period (FAME 2002-2003)

Gross assets 2002-2003 %					
Gross assets 2003	**Small**	**Medium**	**Large**	**0 value**	**Missing value**
Small	54.77	0.00	0.00	0.00	0.03
Medium	0.33	2.91	0.00	0.00	0.00
Large	0.01	0.12	2.26	0.00	0.00
0 value	0.11	0.00	0.00	0.37	0.00
Missing value	1.94	0.09	0.07	0.05	36.92
Total	2,047,190				

Table 13a: Company size by employment comparing a static year to a two year period (FAME 2002-2003) for those observations that had values for each of the three factors

Employment 2002 - 2003 %				
Employment 2003	**Small**	**Medium**	**Large**	**Total**
Small	59.44	1.34	0.04	60.83
Medium	0.02	26.05	0.73	26.80
Large	0.00	0.01	12.36	12.37
Total	129,321			

Table 13b: Company size by turnover comparing a static year to a two year period (FAME 2002-2003) for those observations that had values for each of the three factors

Turnover 2002 - 2003 %					
Turnover 2003	**Small**	**Medium**	**Large**	**0 value**	**Total**
Small	57.94	1.95	0.10	0.05	60.04
Medium	0.04	22.50	1.15	0.00	23.68
Large	0.00	0.02	16.15	0.00	16.18
0 value	0.00	0.00	0.00	0.10	0.10
Total	129,321				

Table 13c: Company size by gross assets comparing a static year to a two year period (FAME 2002-2003) for those observations that had values for each of the three factors

Gross assets 2002 - 2003 %					
Gross assets 2003	**Small**	**Medium**	**Large**	**0 value**	**Total**
Small	51.06	1.95	0.05	0.03	53.10
Medium	0.03	24.02	1.27	0.00	25.32
Large	0.00	0.02	21.53	0.00	21.55
0 value	0.00	0.00	0.00	0.03	0.03
Total	129,321				

Table 14a: Company size by employment comparing a static year to a two year period (FAME 2004-2005)

Employment 2004- 2005 %				
Employment 2005	**Small**	**Medium**	**Large**	**Missing values**
Small	3.73	0.00	0.00	0.00
Medium	0.04	1.18	0.00	0.00
Large	0.00	0.01	0.50	0.00
Missing values	0.31	0.06	0.01	94.16
Total	2,719,411			

Table 14b: Company size by turnover comparing a static year to a two year period (FAME 2004-2005)

Turnover 2004- 2005 %					
Turnover 2005	**Small**	**Medium**	**Large**	**0 value**	**Missing value**
Small	20.81	0.00	0.00	0.00	0.00
Medium	0.05	0.95	0.00	0.00	0.00
Large	0.00	0.02	0.66	0.00	0.00
0 value	0.05	0.00	0.00	0.40	0.00
Missing value	1.58	0.04	0.01	0.05	75.37
Total	2,719,411				

Table 14c: Company size by gross assets comparing a static year to a two year period (FAME 2004-2005)

Gross assets 2004- 2005 %					
Gross assets 2005	**Small**	**Medium**	**Large**	**0 value**	**Missing value**
Small	50.71	0.00	0.00	0.00	0.00
Medium	0.13	2.03	0.00	0.00	0.00
Large	0.00	0.04	1.31	0.00	0.00
0 value	0.07	0.00	0.00	0.43	0.00
Missing value	1.26	0.03	0.02	0.02	43.95
Total	2,719,411				

Table 15a: Company size by employment comparing a static year to a two year period (FAME 2004-2005) for those observations that had values for each of the three factors

Employment 2004 - 2005 %				
Employment 2005	**Small**	**Medium**	**Large**	**Total**
Small	62.75	0.67	0.03	63.45
Medium	0.00	23.20	0.33	23.53
Large	0.00	0.00	13.02	13.02
Total	95,325			

Table 15b: Company size by turnover comparing a static year to a two year period (FAME 2004-2005) for those observations that had values for each of the three factors

Turnover 2004 - 2005 %					
Turnover 2005	**Small**	**Medium**	**Large**	**0 value**	**Total**
Small	58.96	0.98	0.04	0.03	60.00
Medium	0.00	22.86	0.56	0.00	23.43
Large	0.00	0.01	16.45	0.00	16.46
0 value	0.00	0.00	0.00	0.12	0.12
Total	95,325				

Table 15c: Company size by gross assets comparing a static year to a two year period (FAME 2004-2005) for those observations that had values for each of the three factors

Gross assets 2004 - 2005 %					
Gross assets 2005	**Small**	**Medium**	**Large**	**0 value**	**Total**
Small	52.34	0.88	0.02	0.03	53.26
Medium	0.00	24.00	0.65	0.00	24.65
Large	0.00	0.00	22.04	0.00	22.04
0 value	0.00	0.00	0.00	0.05	0.05
Total	95,325				

Table 16a: Size compared to the legal form of a company (FAME, May 2007)

Company Size (no of observations 000's)					
Company's legal form	**0 values**	**Small**	**Medium**	**Large**	**Total**
Private Limited	496	1,606	54	26	2,181
Guarantee	4	59	2	1	65
Public, Not Quoted	1	5	2	2	10
Limited Liability Partnership	1	8	1	0	10
Unlimited	1	3	0	1	5
Public AIM	0	0	0	0	1
Limited Partnership	0	0	0	0	1
Public, Quoted	0	0	0	1	1
Industrial/Provident	0	0	0	0	0
Public Investment Trust	0	0	0	0	0
Public Quoted OFEX	0	0	0	0	0
Royal charter	0	0	0	0	0
Total	502	1,681	60	31	2,274

Table 16b: Size compared to the legal form of a company for companies considered live and that have filed accounts since 2005 (FAME, May 2007)

Company Size (no of observations 000's)					
Legal form	**0 value**	**Small**	**Medium**	**Large**	**Total**
Private Limited	323	1,168	45	23	1,560
Guarantee	3	52	2	0	57
Limited Liability Partnership	1	7	1	0	9
Public, Not Quoted	1	3	1	1	7
Unlimited	0	1	0	1	3
Public AIM	0	0	0	0	1
Public, Quoted	0	0	0	1	1
Limited Partnership	0	0	0	0	0
Industrial/Provident	0	0	0	0	0
Public Investment Trust	0	0	0	0	0
Public Quoted OFEX	0	0	0	0	0
Royal charter	0	0	0	0	0
Total	328	1,233	50	27	1,638

Comparing 16a to 16b shows the difference between companies' legal form for the full population, compared to a subset of the population that only includes live companies and those that have filed accounts since 2005.

It is clear from these results that by excluding non live and companies that have submitted accounts prior to 2005 that the majority of removed observations are with regards to private limited companies. These observations accounted for the legal form for most of the population, so by reducing the population it could be expected that it would be within this label that such a decrease should happen.

Out of the (approx) six hundred thousand observations that were removed, (approx) four hundred thousand of these related to small private limited companies. This could suggest FAME is more responsive in removing/reclassifying larger companies within its register. However, a greater proportion of small companies are deemed to be inactive compared to larger companies. With the exception of high turnover companies with few staff or gross assets (such as investment management companies), a larger company could not remain inactive and large, as inactivity would reduce the size of turnover and the number of employees, therefore the company would become small.

Table 17a: Size compared to type of accounts filed by a company (FAME, May 2007) abbreviated table

	Company Size (no of observations 000's)				
Type of Company accounts filed	**0 values**	**Small**	**Medium**	**Large**	**Total**
Dormant	369	71	3	2	445
Full accounts	17	158	33	20	227
Group	0	5	6	7	19
Initial	0	0	0	0	0
Interim	0	0	0	0	0
Medium Company	0	5	4	0	9
Not Available	0	4	1	0	5
Partial Exemption	0	6	0	0	6
Small company	4	96	10	1	111
Total Exemption Full	44	389	1	0	434
Total Exemption Small	67	947	2	0	1,016
Total	502	1,681	60	31	2,274

Table 17b: Size compared to type of accounts filed for companies considered live and that have filed accounts since 2005 (FAME, May 2007) abbreviated table

	Overall size (000's)				
full/modified	**0 value**	**Small**	**Medium**	**Large**	**Total**
Dormant	244	49	2	1	296
Full accounts	11	99	27	17	155
Group	0	4	5	6	15
Initial	0	0	0	0	0
Interim	0	0	0	0	0
Medium Company	0	4	4	0	8
Not Available	0	0	0	0	0
Partial Exemption	0	4	0	0	4
Small company	1	44	9	1	56
Total Exemption Full	33	279	0	0	313
Total Exemption Small	39	750	2	0	791
Total	328	1,233	50	27	1,638

Comparing 17a to 17b shows the difference between the type of accounts filed by companies for the full population, compared to a subset of the population that only includes live companies and those that have filed accounts since 2005.

The small firms have had the largest decrease in observations, while companies that have dormant accounts have been reduced the most between the two datasets.

The decrease in dormant companies is somewhat expected as a dormant company is non trading, it still however may be live, which is why there has not been a greater decrease within this category.

The categories that regard exemptions have also seen a significant decrease in observations. This is due to these categories mainly relating to small companies, for which we have already established, have shown a considerable decrease in observations between datasets.

Table 18: Size compared to status of a company (FAME, May 2007)

Company Size (no of observations 000's)					
Company status	**0 values**	**Small**	**Medium**	**Large**	**Total**
Live	236	1,233	50	26	1,545
Dissolved	161	367	4	2	534
Live/Non trading	103	41	2	2	149
Liquidation	2	35	2	1	40
Receivership	0	5	1	0	7
Removed	0	0	0	0	0
Total	502	1,681	60	31	2,274

Table 19: Size compared to the legal form of a company (FAME, May 2007) for those observations that had values for each of the three factors

Company Size (no of observations 000's)				
Company's legal form	**Small**	**Medium**	**Large**	**Total**
Private Limited	54	21	13	88
Public, Not Quoted	2	1	1	5
Guarantee	1	0	0	2
Public AIM	0	0	0	1
Limited Liability Partnership	1	0	0	1
Public, Quoted	0	0	1	1
Limited Partnership	0	0	0	0
Not companies Act	0	0	0	0
Other	0	0	0	0
Public Investment Trust	0	0	0	0
Public Quoted OFEX	0	0	0	0
Industrial/Provident	0	0	0	0
Royal charter	0	0	0	0
Unlimited	0	0	0	0
Total	59	23	15	97

Table 20: Size compared to type of accounts filed by a company (FAME, May 2007) for those observations that had values for each of the three factors

Company Size (no of observations 000's)				
Type of Company accounts filed	**Small**	**Medium**	**Large**	**Total**
Dormant	0	0	0	0
Full accounts	36	17	8	61
Group	3	5	6	15
Interim	0	0	0	0
Medium Company	0	0	0	0
Not Available	1	1	0	2
Partial Exemption	0	0	0	0
Small company	0	0	0	0
Total Exemption Full	19	0	0	19
Total Exemption Small	0	0	0	0
Total	59	23	15	97

Table 21: Size compared to status of a company (FAME, May 2007) for those observations that had values for each of the three factors

Company Size (no of observations 000's)				
Company status	**Small**	**Medium**	**Large**	**Total**
Live	40	19	13	72
Dissolved	18	3	1	23
Receivership	1	1	0	2
Live/Nontrading	1	0	0	1
Total	59	23	15	97

Table 22a: Micro size analysis (FAME, May 2007)

Employment	Size	Companies	Percentage of companies		Percentage of employmer	
		000s	Small Companies	All companies	Small Companies	All companie
1	Micro	11	12.64	8.38	1.07	0.04
2	Micro	15	17.24	11.7	3.00	0.11
3	Micro	7	8.05	5.65	2.17	0.08
4-5	Micro	10	11.49	7.67	4.34	0.15
6-10	Micro	13	14.94	10.03	9.89	0.35
11-50	Small	31	35.63	23.88	79.52	2.80
51-250	Med.	31	N/A	23.36	N/A	11.74
251+	Large	12	N/A	9.32	N/A	84.75
Total		131				

Table 22b: Micro size analysis for companies (IDBR, September 2007) NEED TO CHANGE i.e. NEW IDBR

Employment	Size	No of businesses (000's)	Percentage of businesses		Percentage of employment	
			Small businesses	All businesses	Small businesses	All businesse
0	Micro	22	0.97	0.95	N/A	N/A
1	Micro	851	37.46	36.78	0.01	0.00
2	Micro	558	24.56	24.12	13.84	4.07
3	Micro	222	9.77	9.6	8.26	2.43
4	Micro	233	10.26	10.06	12.62	3.71
6 - 10	Micro	210	9.24	9.07	19.48	5.73
11 - 50	Small	176	7.75	7.61	45.78	13.47
51 - 250	Medium	33	N/A	1.43	N/A	12.19
251 +	Large	9	N/A	0.38	N/A	58.39
Total		2,314				

The large number of fully reported observations of employment within the IDBR allows the micro size analysis for companies to successfully take place with (what the IDBR considers to be) all UK companies. The micro size analysis provided by FAME is still relevant, but this takes place using a subset of what FAME believes to be the total population.

The difference between the two is noticeable as with regards to the percentage of companies, the IDBR dataset resembles an inverted pyramid, where the larger

number of observation are with regards to the smaller companies, with percentages reducing (on the whole) as the companies get larger.

Within the FAME subset these values increase and decrease in a pattern dissimilar to the IDBR. Ultimately FAME is top heavy, having a much higher percentage of reported observations for larger companies than the IDBR, While the majority of observations are still considered to be small or micro, the percentage of these observations are significantly lower than those reported in the IDBR.

Ultimately the IDBR can be used to identify the difference between the FAME subset and the FAME population. If the IDBR is considered to be correct it is clear that the majority of observations currently not reported within FAME can be regarded as small or micro companies.

Table 23a: Churn analysis between FAME06 and FAME07 datasets (2007 dataset removing foreign companies and those that have never filed accounts)

Churn	Number of observations (000's)	Percent
2007 only	867	37.22
2006 only	56	2.39
In both 2006 and 2007	1,407	60.39
Total	2,330	100

IDBR churn analysis is complicated:

1) Legal units do not necessarily need to be legal units, i.e. multiple companies could be born or die, but we would still keep these as an enterprise.
2) The IDBR snapshots can be dated retrospectively, i.e. if IDBR is informed that a company died three years prior, the IDBR will back date this to previous records.

Hence given the extra complexity involved with undertaking such analysis it has not been fully explored at this stage and so results are not reported here.

Table 24: Results of linking FAME to the BSD for the total observable periods (FAME 2007 – BSD 2002-2007)

Merges	Number of observations (000's)	Percent	Percent not including CRN only
BSD only	2,148	26.68	37.57
BSD+CRN	227	2.82	3.97
CRN only	2,335	28.99	
FAME+BSD	1,864	23.15	32.60
FAME+CRN	1,479	18.36	25.87
Total	8,053	100	

Table 25: Results of linking FAME to the BSD for a one year period (FAME 2007 – BSD 2007)

Merges	Number of observations (000's)	Percent	Percent not including CRN only
BSD only	1,751	22.88	33.60
BSD+CRN	117	1.53	2.25
CRN only	2,444	31.93	
FAME+BSD	1,796	23.45	34.47
FAME+CRN	1,547	20.21	29.69
Total	7,656	100	

ANNEX C

UK Company Statistics Reconciliation Project

Initial Literature Review

This paper lists some of the formal projects to compare dataset from different sources to ascertain the number of companies. We also list some auxiliary reviews of relevance to this project.

1. Company number reviews	
1.1	**UK Company Population Statistics - Draft Terms of Reference**
Author	Michael Clary/BERR
Date	September 2007
Datasets	FAME, July 2006
Summary	Analysis of firms by size band, using alternative definitions of size and audit requirements, showing movements of companies between bands. Also includes analysis based upon economic activity. Final report still to come?
1.2	**Business Demography in the UK**
Author	John Perry/ONS
Date	October 2007
Datasets	IDBR/VAT
Summary	Looks at birth/death of companies by studying VAT birth/deaths; may be useful triangulation
1.3	**FAME – Company Demography**
Author	
Date	
Datasets	FAME, May 2007; IDBR aggregates
Summary	Study looking at the no of companies in the UK. Eliminates non-UK CH references. Makes comparisons mainly depending on the trading status and accounts type, and compares with IDBR (numbers and information content)
1.4	**FAME investigations and analysis**
Author	Alison Pritchard
Date	September 2006
Dataset	FAME/ARD (CRN link provided by IDBR team)

s	
Summary	Comments and analyses issues such as CRN coverage, estimated vs actual turnover, sample coverage
1.5	**Establishment level empirical study of the contribution of exporting to the UK productivity growth**
Author	Richard Harris, U. Glasgow (BERR research contract)
Date	November 07
Datasets	Merging FAME with the ARD dataset (via obtaining IDBR reference numbers)
Summary	Need to chase up results
1.6	**Matching Company Numbers to the Corporation Tax System**
Author	HMRC
Date	Andrew Allen, Clare Watkins
Datasets	IDBR/CT/CH (CRN link)
Summary	Analysis linking the IDBR with Companies House and HMRC. Only aggregate results available outside HMRC.
2. Auxiliary studies	
2.1	**Business Registers Unit – New Data Sources**
Author	Business Registers Unit/ONS (Dugmore?)
Date	April 2007
Datasets	Discusses IDBR, VAT, CT, PAYE, VAO, CH, Yell, FAME etc
Summary	This paper discusses all the various types of datasets that are out there, which may provide additional information on business activity
2.2	**Some Issues with SIC**
Author	Tomas Hellebrandt/ONS
Date	September 2007
Datasets	IDBR
Summary	Defines SIC and then looks at some of the problems. Relevance to the use of SIC as a linking tool/check,
2.3	**Empirical study of links between exporting and business investment in innovation – description of the data linking exercise**
Author	Sourafel Girma & Holger Gorg, U. Nottingham (BERR research contract?)

Date	May 2006
Datasets	FAME, BERD (CRN link provided by IDBR team?)
Summary	Another description of ONS/FAME linking, although in this case of limited value as all data which did not contain an export figure was discarded

ANNEX D

Comparison of Breakdowns by Company Size according to three different approaches (thousands of companies)

	Small	Medium	Large	Unbanded	**TOTAL**	
Population as in paper, known values	2182	62	31	0	**2274**	Banding ignores imputed data
Population as in paper corrected. Known values **	2187	60	31	0	**2277**	** Correcting the mistake in banding acknowledged in the paper (LSS) and adding in some enterprises which need not have been excluded
Population using known and imputed values	2209	44	24	-	**2277**	Banding uses actual and imputed data. Unbanded means that one or more data item that is missing (i e not actual or imputed) and the banding would depend on its value if present.
Population using the "Missing is Small" (MiS) method	2229	31	17	0	**2277**	Banding ignores imputed data and assumes any missing (or imputed) data item is actually Small

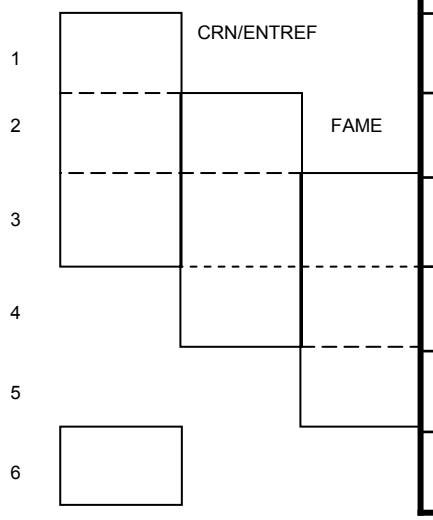
ANNEX E

Detailed explanation of the merging process

The theory of matching and possible results

ONS receives a complete list from CH of all active companies registered and de-registered. This is linked to the IDBR by matching software. All CH companies therefore should be in the IDBR, linked by CRN (CH reference number). A look-up table of CRNs and IDBR reference numbers has been made available to the VML team. As all FAME companies also have a CRN and are a subset of CH data, then matching should be straightforward: in theory, all FAME CRNs must have a look-up to the IDBR.

In practice, however, this does not happen. First, there are delays in transferring data between different systems. Second, CH companies will only have an IDBR record if they appear to have economic activity. Third, the actual matching taking place is between a static version of FAME and the static version of the IDBR, the Business Structure Database or BSD; there might be inconsistencies in time periods between the two snapshots. Fourth, the "enterprise" structure of the BSD does not map exactly onto the company structure of FAME.



No	Results of Merger
1	Companies only found in IDBR
2	Companies only matched between IDBR and CRN/ENTREF
3	Companies matched in all three datasets
4	Companies only matched between CRN/ENTREF and FAME
5	Companies only found in FAME
6	Companies only found in CRN/ENTREF

Figure 3: Possibilities from matching datasets

Figure 3 views the two datasets and the CRN-IDBR look-up table as three overlapping blocks, with six different results from matching that can occur. In theory, only 1-3 reflect active companies. Possibilities 4, 5 and 6 should only occur for inactive companies. This can be tested from the FAME data. Upon

matching the datasets the best case scenario would be for all the companies in FAME to match completely (case 3), but in practice this is not going to be the case.

These results bare a slight resemblance to Figures 1 and 2. However there are differences. The reconciliation process has not involved any of the data from HMRC, therefore numbers 5, 7 and 4 in figure 1 have become redundant in the context of this work. This effectively reduces Figure to two circles. If it was considered that the circle marked Companies House was actually marked FAME, this would create three sections: IDBR only (1 in Figure 3), FAME only (5 in Figure 3) and a match between FAME and IDBR (3 in Figure 3). As previously stated (and shown in Figure 2) the instance of FAME used in this report is the vast majority of Companies House data, however in the context of this report only FAME data is being commented on, therefore numbers 2,3,4 and 6 within Figure 1 cannot be commented on. Furthermore the CRN ENTREF file is taken from the IDBR, therefore while this is represented in Figure 3, it has no bearing in Figure 1.

Datasets and the matching process

BSD data was obtained in a static file format for the years 2002 to 2007. Two FAME datasets were used for analysis. One was a version used by the UKTI, which was dated 18/04/2006 (used in the size analysis comparing a single year to a two year period in section 4.3), the other was a flat file taken from the live version of FAME from Michael Clary in BERR, dated May 2007 (the file used in all of the size analysis. The variables between the two datasets did vary, due to the nature for which each was intended, but both have (in some form) the key variables in order for analysis to take place.

It is worth pointing out that the May 2007 dataset is not exactly the same as the one used in the size analysis. In order not to bias the size analysis population all foreign companies and those companies who had never filed accounts were removed. The population used for merging has removed the foreign companies as these are not relevant, but a company may appear on the BSD whether they have filed accounts or not and therefore, these observations are not removed from this sample. The reconciliation of the FAME file is shown in Annex F.

Two matching options were pursued. First, companies and enterprises were matched on a year-by-year basis – for example a FAME entry for 2004 would be tested to see if an IDBR entry for 2004 also existed. However, different reporting dates and delays in updating records means that a large number of companies were likely to be unmatched in any one year. An alternative was to match all references, irrespective of the period.

One of the main issues that may be encountered is that of time lags, especially

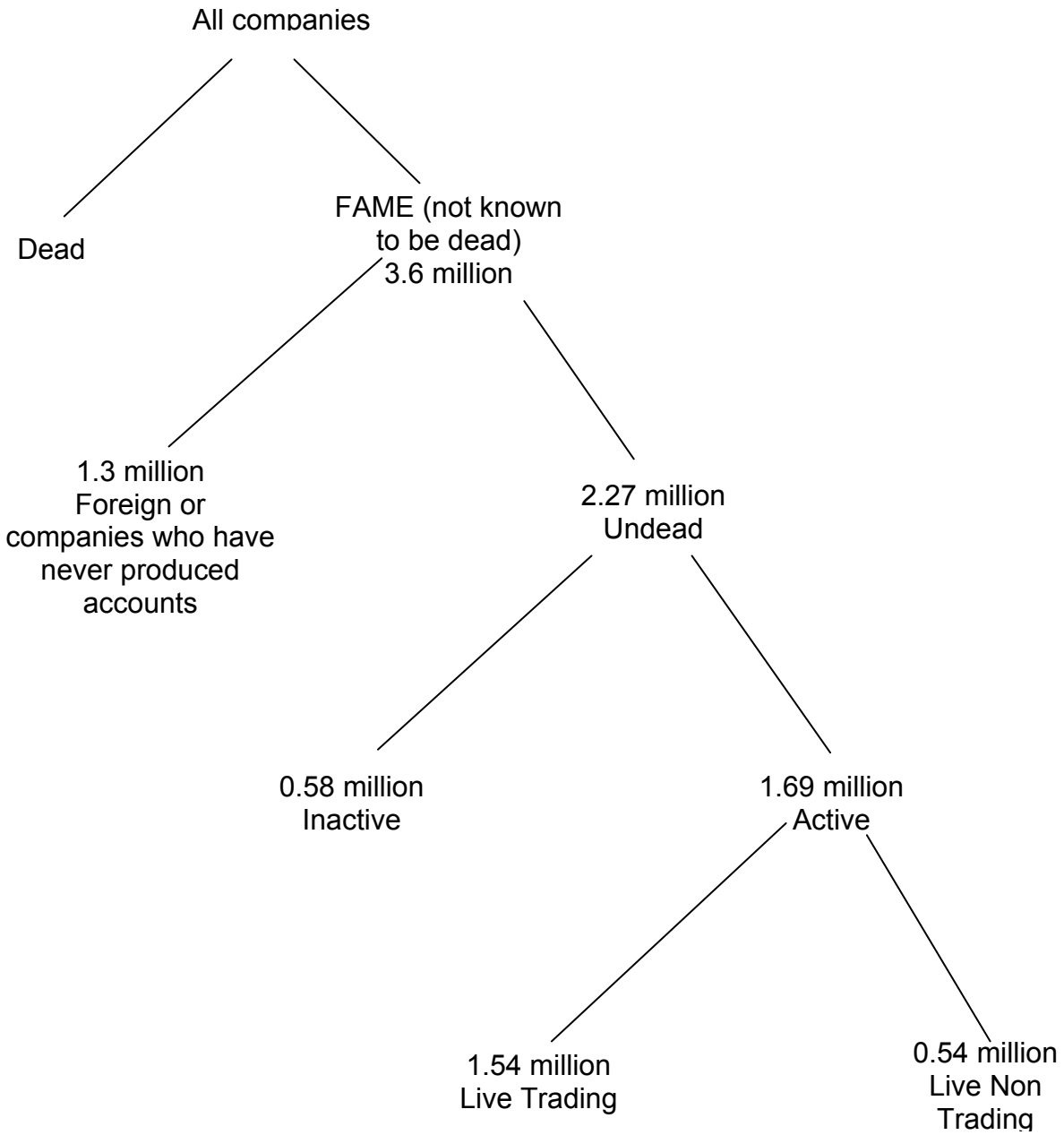
when considering financial information, for accounts and audits are to be completed roughly within twelve months of year end, therefore any accounts with a year end after the end of December 2004, could potentially not be included within the FAME 2006 dataset. For example if a company's year end was the 30/06/2004, the accounts were completed by 31/01/2005, it is possible that FAME would not have been updated their records to reflect this when the sample was created; therefore, the sample would not include accounts details for this firm in 2004. This could distort inferences about how well a particular year's match rates reflects the true rate.

ANNEX F

Reconciliation of FAME (May 2007) population used for size analysis

Total Sample Population 2007	3557178
Subtract Irish Companies	204429
	3352749
Subract foreign companies and those which have never had accounts produced	1078690
Total Population used	2274059

Tree diagram explaining FAME population



ANNEX G

Reconciliation of FAME (May 2007) population used for merging the datasets

Total Sample Population 2007	3557178
Subtract Irish Companies	204429
	3352749
Subtract foreign companies	9,984
	3,342,765

ANNEX H

Definition of Company Legal Form – provided by Companies House

Private Limited - Private Limited companies are limited by shares, and are owned by the shareholders. Those shareholders who pay fully for their shares are not liable for the company's debts in the event of its wind-up. Shareholders who partly pay for their shares are liable for the outstanding amount owing to the company for their shares. This includes those community interest companies (CICs) which are private companies limited by shares.

Private Limited by Guarantee - Private company limited by guarantee - members' liability is limited to the amount they have agreed to contribute to the company's assets if it is wound up. This includes all RTM (Right to Manage) companies-, common hold associations and those community interest companies which are companies limited by guarantee.

Industrial provident - An industrial and provident society is an organisation conducting an industry, business or trade, either as a co-operative or for the benefit of the community, and is registered under the Industrial and Provident Societies Act 1965.

(taken from FSA website)

Limited Liability Partnership - Generally applies to large firms of solicitors or accountants and enjoys the tax benefits of a partnership and the limited liability status of a company. It similar to a limited company but legally governed by statute.

Limited Partnership - A limited partnership consists of:

- one or more persons called general partners, who are liable for all debts and obligations of the firm; and
- one or more persons called limited partners, who contribute a sum or sums of money as capital, or property valued at a stated amount. Limited partners are not liable for the debts and obligations of the firm beyond the amount contributed.

Public Aim - Alternative Investment Market run by the London Stock Exchange

Public Quoted OFEX (Plus Market) - Formally known as OFEX, the PLUS Market is separate from the London Stock Exchange but authorised and recognised by the Financial Services Authority. The PLUS market provides a trading platform for primary and secondary equity market services.

(taken from TD Waterhouse website)

Public Not Quoted - A public company not quoted is subject to the same stringent rules as a quoted public company but is not registered on any of the stock exchanges and therefore not able to raise funds by the selling of shares to the public. A public company can apply to become quoted and receives from Companies House a certificate to commence trading under section 117 of the Companies Act 1985.

Public Quoted - A public company may have its shares admitted to the Official List of the UK Listing Authority (FSA) with its shares trading on the London Stock exchange; it is then deemed to be a 'quoted' company. A quoted company is subject to more stringent rules that a private limited company, including having an increased share capital of £50,000 (minimum), two shareholders, two directors and a qualified secretary.

Royal Charter - A Royal Charter is a charter given by a monarch to legitimise an incorporated body, such as a city, company or university and to define their privileges and purpose. In medieval Europe, cities were the only place where it was legal to conduct commerce and Royal Charters were the only way to establish a city. The year a city was chartered is considered the year the city was founded, whether or not there was a settlement there before.

In the Commonwealth a Royal Charter is a charter granted by the sovereign on the advice of the Privy Council, which creates or gives special status to an incorporated body. It is an exercise of the Royal Prerogative.

Among the 400 or so organisations with Royal Charters are cities; the BBC; theatres such as the Royal Opera House and the Theatre Royal; livery companies; the UK's older universities; professional institutions; and charities.

Most charters are now granted to professional institutions and to charities. The main criteria necessary for applying for a Royal Charter are that:

- members are of a unique profession without significant overlap with other bodies
- there are 5,000 members or more with at least 75 per cent qualified to first degree level
- the institute is financially sound and has a track record of achievement
- it will be in the public interest to regulate via the government

(taken from The Chartered Quality Institute website)

Unlimited - The liability of its members is unlimited and they can be required to pay the company's debts without limit if it defaults or is wound up. Generally there is no obligation on unlimited companies to file accounts at companies House.

Public Investment Trust – Not defined by Companies House - A company whose sole business consists of buying, selling and holding shares.

(from www.crimes-of-persuasion.com/Crimes/InPerson/MajorPerson/Prime/prime_glossary.htm)

ANNEX I

Definition of the level of company activity - provided by Companies House

Dissolved - Companies that cease to exist and have been removed from the Companies House 'live' Register. A company can voluntarily dissolve or the Registrar can remove the company from the Register for non compliance with the Companies Act.

Live - A company that has trading or non-trading activities complies with the Companies Act and files its statutory documents, such as annual accounts and annual returns.

Live/Non-trading/Dormant - A company can be non-trading in the sense that it isn't doing business. But it may still have other accounting transactions going through its books, which means that it is not dormant in a legal sense.

The term 'dormant' applies to a company that, in legal terms, has 'no significant accounting transactions' during a financial year. It is not the same as a 'non-trading company', a term that has no legal meaning. No significant accounting transactions means no entries in the company's accounting records. The amount paid for shares when the company is first formed and a few costs that the company may incur in order to keep the company registered at Companies House do not count as significant accounting transactions.

Receivership - A company in administrative receivership is often said to be "in receivership". Its when a company or partnership gets into financial trouble an administrator or administrative receiver may be appointed.

ANNEX J

Details of overall company size coding

A piece of code was created that would allocate each of the three variables (employment, turnover and gross assets) a value depending on their company size as determined from the audit regulations (Tables 4). The code set out value of 1 being a small company, 4 a medium company and 15 a large company.

These numbers
are not significant in themselves, they were created to remove any confusion of the result when combining them (for example if the number 1, 2 and 3 were used, there would be no way to tell in a combination of three variables whether a number 3 would relate to one single observation of a 3, or a 1 and 2 combined).

The code went as follows:

1. Generate an overall size variable make all values equal to 0. By making the entire dataset 0 this is effectively building those observations with either no value or a 0 value into the code without actually specifying them.
2. By registration number, if turnover = 1(small) give it a value of 1.
2. By registration number, add to the previous number, if employment = 1give it a value 1.
3. By registration number, add to the previous number, if gross assets = 1 give it a value 1.
4. By registration number, add to the previous number, if turnover = 2(medium) give it a value 4.

This code continued until all three size barriers for all three variables were considered. If a variable did not have a particular size (e.g. if turnover was not small) no value would be created, it would just move onto the next line of code.

The results of this process are the size determinant numbers in Table 5. From this it is clear as to what each number relates to with regards to the size of a company.

For example the number 3 is in relation to the addition of three 1's, which means that for all of the factors that company was small.

A number 4 would suggest that for that company there was only one observable value and that was with regards to a medium company.

The number 23 is the addition of one 15 and two 4's, therefore for two out of the three variables this company was considered medium.

ANNEX K
Results of size analysis gained from IDBR

Please note that the IDBR includes businesses as well as companies, these will be included within all analysis unless stated otherwise.

	No of businesses by employment (000's)	%	No of businesses by turnover (000's)	%
Small	2,249	97.2	2,249	97.21
Medium	34	1.47	29	1.27
Large	9	0.38	11	0.49
0 value	22	0.95	24	1.03
Total	2,314	100	2,314	100

IDBR 1: Company size by employment and turnover (IDBR, September 2007)

	No of businesses by size (000's)	%
Small	2,268	98.01
Medium	10	0.82
Large	6	0.24
0 value	21	0.92
Total	2,314	100

IDBR 2: Total company size (IDBR, September 2007)

	Business size by turnover			
Business size by employment	**Small**	**Medium**	**Large**	**0 value**
Small	99.20	0.62	0.09	0.09
Medium	0.76	0.58	0.18	0.00
Large	0.04	0.09	0.27	0.00
0 value	0.04	0.00	0.00	0.93
Total	2,249			

IDBR 3: Comparison of company size by turnover and employment (IDBR, September 2007)

			Employment 2002 - 2003		
Employment band 2003	**Small**	**Medium**	**Large**	**0 value**	**Missing values**
Small	94.56	0.00	0.00	0.00	0.00
Medium	0.43	0.92	0.00	0.00	0.00
Large	0.13	0.02	0.21	0.00	0.00
0 value	1.30	0.00	0.00	1.48	0.00
Missing values	0.65	0.00	0.00	0.04	0.26
Total	2,862,104				

IDBR 4a: Static verses dynamic company size analysis by employment (IDBR, 2002 and 2003)

			Turnover 2002 - 2003		
Turnover 2003	**Small**	**Medium**	**Large**	**0 value**	**Missing values**
Small	92.85	0.00	0.00	0.00	0.00
Medium	0.34	0.69	0.00	0.00	0.00
Large	0.12	0.03	0.26	0.00	0.00
0 value	2.85	0.01	0.00	1.89	0.00
Missing values	0.64	0.00	0.00	0.05	0.26
Total	2,862,104				

IDBR 4b: Static verses dynamic company size analysis by turnover (IDBR, 2002 and 2003)

			Employment 2004 - 2005		
Employment band 2005	**Small**	**Medium**	**Large**	**0 value**	**Missing values**
Small	75.65	0.00	0.00	0.00	0.00
Medium	0.06	0.39	0.00	0.00	0.00
Large	0.00	0.01	0.09	0.00	0.00
0 value	0.29	0.00	0.00	2.02	0.00
Missing values	0.17	0.00	0.00	0.03	21.30
Total	4,412,875				

Table 4c: Static verses dynamic company size analysis by employment (IDBR, 2004 and 2005)

			Turnover 2004 - 2005		
Turnover band 2005	**Small**	**Medium**	**Large**	**0 value**	**Missing values**
Small	74.25	0.00	0.00	0.00	0.00
Medium	0.07	0.33	0.00	0.00	0.00
Large	0.01	0.01	0.11	0.00	0.00
0 value	0.57	0.00	0.00	3.15	0.00
Missing values	0.15	0.00	0.00	0.05	21.30
Total	4,412,875				

Table 4d: Static verses dynamic company size analysis by turnover (IDBR, 2004 and 2005)

Company size (no of companies (000's)					
Business live units	**Small**	**Medium**	**Large**	**0 values**	**Total**
VAT	670	1	0	20	690
PAYE	446	0	0	0	446
VAT+PAYE	506	0	0	0	506
LU	9	0	0	1	10
VAT+LU	152	0	0	0	152
PAYE+LU	111	2	1	0	113
VAT+PAYE+LU	375	16	5	0	396
Total	2,268	19	6	21	2,314

IDBR 5: Company size compared to live unit status (IDBR, September 2007)

	Company size (no of companies 000's)				
CH status	**Small**	**Medium**	**Large**	**0 value**	**Total**
Other	26	1	0	0	28
Private Unlimited	1	0	0	0	2
Private Limited	1,160	14	4	6	1,184
PLC	4	0	0	0	4
Private Company limited by guarantee without share capital claiming exemption under section 30 of the 1985 Act from using the word 'limited'	10	0	0	0	10
Limited Partnership	0	0	0	0	0
Private Limited company without share capital	14	0	0	0	15
Private Unlimited company without share capital	0	0	0	0	0
Total	1,216	17	4	7	1,243

IDBR 6: Company size compared to CH status (IDBR, September 2007)

	Company size (no of companies 000's)				
CH accounts type	**Small**	**Medium**	**Large**	**0 value**	**Total**
Type not available	134	1	0	1	137
Full accounts	59	9	3	3	73
Small Company	43	1	0	0	44
Medium Company	4	3	0	0	7
Group	6	1	1	1	9
Dormant	42	1	1	0	44
Interim	0	0	0	0	0
Initial	0	0	0	0	0
Total Exemption Full	219	0	0	1	219
Total Exemption Small	706	1	0	1	708
Partial Exemption	3	0	0	0	3
Total	1,216	17	4	7	1,243

IDBR 7: Company size compared to CH accounts type (IDBR, September 2007)

	Company size (no of companies 000's)				
Dissolved marker	**Small**	**Medium**	**Large**	**0 value**	**Total**
Converted / Closed	1	0	0	0	1
Dissolved	55	1	1	0	57
Liquidation	12	0	0	0	13
Receivership	2	0	0	0	3
Total	71	1	1	0	73

IDBR 8: Company size compared to a dissolved marker (IDBR, September 2007)

Employment	Size	No of businesses (000's)	Percentage of businesses		Percentage of employment	
			Small businesses	All businesses	Small businesses	All businesse
0	Micro	22	0.97	0.95	N/A	N/A
1	Micro	851	37.46	36.78	0.01	0.00
2	Micro	558	24.56	24.12	13.84	4.07
3	Micro	222	9.77	9.6	8.26	2.43
4	Micro	233	10.26	10.06	12.62	3.71
6 - 10	Micro	210	9.24	9.07	19.48	5.73
11 - 50	Small	176	7.75	7.61	45.78	13.47
51 - 250	Medium	33	N/A	1.43	N/A	12.19
251 +	Large	9	N/A	0.38	N/A	58.39
Total		2,314				

IDBR 9: Micro size analysis (IDBR, September 2007)

The following information is with regard to the IDBR population, discounting the businesses, therefore, including only companies. This has been obtained by keeping only those observations that have a Companies House marker.

	No of companies by employment (000's)	%	No of companies by turnover (000's)	%
Small	1,201	96.56	1,199	96.4
Medium	29	2.31	26	2.09
Large	7	0.53	10	0.78
0 value	7	0.59	10	0.73
Total	1,243	100	1,243	100

IDBR 10: Company size by employment and turnover for companies (IDBR, September 2007)

	No of companies by	
	size (000's)	%
Small	1,216	97.76
Medium	17	1.33
Large	4	0.36
0 value	7	0.55
Total	1,243	100

IDBR 11: Total company size for companies (IDBR, September 2007)

	Company size by turnover			
Company size by employment	**Small**	**Medium**	**Large**	**0 value**
Small	98.75	1.08	0.17	0.17
Medium	1.17	1.00	0.25	0.00
Large	0.08	0.08	0.33	0.00
0 value	0.00	0.00	0.00	0.58
Total	1,243			

IDBR 12: Comparison of company size by turnover and employment for companies (IDBR, September 2007)

			Employment 2002 - 2003		
Employment band 2003	**Small**	**Medium**	**Large**	**0 value**	**Missing values**
Small	93.23	0.00	0.00	0.00	0.00
Medium	0.25	2.45	0.00	0.00	0.00
Large	0.01	0.05	0.54	0.00	0.00
0 value	0.80	0.01	0.00	1.92	0.00
Missing values	0.11	0.00	0.00	0.05	0.56
Total	1,026,021				

IDBR 13a: Static verses dynamic company size analysis by employment for companies (IDBR, 2002 and 2003)

			Turnover 2002 - 2003		
Turnover	**Small**	**Medium**	**Large**	**0 value**	**Missing values**
band 2003					
Small	92.29	0.00	0.00	0.00	0.00
Medium	0.36	1.83	0.00	0.00	0.00
Large	0.03	0.09	0.67	0.00	0.00
0 value	1.18	0.02	0.01	2.79	0.00
Missing values	0.10	0.00	0.00	0.06	0.56
Total	1,026,021				

IDBR 13b: Static verses dynamic company size analysis by turnover for companies (IDBR, 2002 and 2003)

			Employment 2004 - 2005		
Employment	**Small**	**Medium**	**Large**	**0 value**	**Missing values**
band 2005					
Small	65.09	0.00	0.00	0.00	0.00
Medium	0.10	0.53	0.00	0.00	0.00
Large	0.00	0.01	0.07	0.00	0.00
0 value	0.32	0.00	0.00	1.48	0.00
Missing values	0.10	0.00	0.00	0.04	32.24
Total	2,058,588				

IDBR 13c: Static verses dynamic company size analysis by employment for companies (IDBR, 2004 and 2005)

			Turnover 2004 - 2005		
Turnover band 2005	**Small**	**Medium**	**Large**	**0 value**	**Missing values**
Small	64.51	0.00	0.00	0.00	0.00
Medium	0.13	0.48	0.00	0.00	0.00
Large	0.01	0.02	0.11	0.00	0.00
0 value	0.66	0.01	0.00	1.69	0.00
Missing values	0.09	0.00	0.00	0.05	32.24
Total	2,058,588				

IDBR 13d: Static verses dynamic company size analysis by turnover for companies (IDBR, 2004 and 2005)

	Company size (no of companies (000's)				
Business live units	**Small**	**Medium**	**Large**	**0 values**	**Total**
VAT	206	1	0	6	213
PAYE	256	0	0	0	256
VAT+PAYE	423	0	0	0	423
LU	0	0	0	1	1
VAT+LU	27	0	0	0	28
PAYE+LU	46	1	0	0	47
VAT+PAYE+LU	257	14	4	0	275
Total	1,216	17	4	7	1,243

IDBR 14: Company size compared to live unit status for corporates (IDBR, September 2007)

	Company size (no of companies 000's)				
Dissolved marker	**Small**	**Medium**	**Large**	**0 value**	**Total**
Converted / Closed	1	0	0	0	1
Dissolved	51	0	0	0	51
Liquidation	12	0	0	0	13
Receivership	2	0	0	0	3
Total	66	1	0	0	67

IDBR 15: Company size compared to a dissolved marker for companies (IDBR, September 2007)

Annex L

	Year ended	Year ended		
	31/03/2006	31/03/2007	Change 05_6 to 06_7	Source
Summary of changes in the number of companies				Companies in 2006to 2007
On Register 12 months ago	2,160,200	2,323,100	162,900	Table A1
New Incorporations	372,000	449,700	77,700	
Net removals	210,700	224,000	13,300	
On Register at end date	2,323,100	2,546,200	223,100	
In course of removal	192,900	204,700	11,800	
Effective no on register at end date	2,130,200	2,341,500	211,300	
Publlic and Private Companies				Table A2
Total public and private	2,130,200	2,341,300	211,100	
Public	11,500	11,200	-300	
Private Ltd	2,113,400	2,324,700	211,300	
Private Unlimited	5,300	5,400	100	
Total Private	2,118,700	2,330,100	211,400	
Other types of company registration				Table A1
Overseas Company	8,066	8,366	300	Table E1
Limited partnerships	13,426	14,388	962	Table E2

Limited partnerships registered under the Limited Partnerships Act 1907

Assurance companies	930	929	-1	Table E3	
Companies incorporated other than under the Companies Acts			0	Table E3	
Industrial & Provident Societies	9,546	9,538	-8	Table E3	
Incorporated by Royal Charter	798	804	6	Table E3	
Special Acts of Parliament	50	49	-1	Table E3	
Newspaper and Libel Act 1881	402	446	44	Table E3	
European Economic Interest Groupings - UK	185	187	2	Table E3	Registered under the European Economic Interest Grouping Regulations 1989 (SI 1989 No 638)
European Economic Interest Groupings - outside UK	3	4	1	Table E3	
European Public Limited Liability Companies	1	3	2	Table E3	Registered under the European Company Statute and European Public Limited Liability Company Regulation 2004, which came into effect 08/10/04
Limited Liability Partnerships registered under Section 2 of the Limited Liability Partnership Act2000	17,499	24,555	7,056	Table E4	Limited Liability Partnerships registered under Section 2 of the Limited Liability Partnership Act 2000
Accounts documents filed		1,664		Table F1	
Annual Accounts registered this period by type				Table F2	

Full Accounts		137,900		
Small		56,800		
Medium		7,400		
Gtroup		15,300		
Dormant		309,200		
Interim/Initial		300		
Audit Exempt		1,124,000		
Total		1,651,000		
Companies up to date with accountsf		2,103,000		Table F3
Percent compliant		95.40%		