Progress towards harmonisation of audit exemption in the EU and the case of the UK

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Abstract

The purpose of this paper is to examine the extent to which the European Union (EU) has achieved harmonisation in terms of audit exemption for small companies. Using the case of the UK, it analyses the sufficiency of turnover as a surrogate for the motivation of the directors of small, private companies to have a voluntary audit of their annual financial statements. The data is drawn from a survey of the directors of small companies (Collis, 2003), which was conducted at a time when the UK government was consulting on a proposal to raise the size thresholds for a small company to the EU maxima.

An analysis of secondary data reveals that 92% of the EU-25 offer audit exemption to small companies and the UK is one of three countries now using the maximum EU size thresholds. Focusing on the UK experience, 42% of directors of small companies want to continue having an audit. It was found that turnover is not sufficient alone as a surrogate for either management or agency factors and makes an independent contribution to the explanation of the demand for audit. Management factors relate to the view that audit provides a check on accounting records and systems and improves the quality of the financial information. Agency factors relate to providing assurance to shareholders if the company is not wholly family owned or has external shareholders, providing assurance to the bank and other lenders, and the view that audit has a positive effect on the company's credit rating score.

In the UK, raising the thresholds to meet EU harmonisation objectives has meant that the enlarged category of small companies contains two subgroups with differing needs. Deregulation means directors are free to choose and in a significant proportion of cases it would appear that the benefit of an audit outweighs the costs. This will be reassuring news to the accountancy profession, banks, lenders and other creditors who rely on the audited financial statements for assessing and monitoring risk. However, lenders and creditors have the economic power to ensure that their needs are met and this UK study shows it is important that regulators in other EU member states protect the needs of minority shareholders requiring the assurance of an independent audit.

Acknowledgements

I am grateful to Professor Michael Bradbury (UNITEC Institute of Technology, Auckland, NZ) and Professor Len Skerratt (Brunel University, Uxbridge, UK) for their helpful comments on earlier drafts of this paper

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1. Introduction

This paper examines the extent to which the European Union (EU) has achieved harmonisation in terms of audit exemption for small companies. Using the case of the UK, it analyses the sufficiency of turnover as a surrogate for the motivation of the directors of small, private companies to voluntarily demand audit assurance (Abdel-Khalik, 1989). The data is drawn from a survey of the directors of small companies (Collis, 2003), which was conducted at a time when the UK government was consulting on a proposal to raise the size thresholds for a small company to the EU maxima.[1]

For many years in the UK all active limited companies, irrespective of size, were required to have an independent audit. This external examination of and expression of opinion on the annual accounts demonstrates 'the completeness, accuracy and validity of transactions which, when aggregated, make up the financial statements' (Power, 1997, p. 24). However, audit regulation 'emphasised the difficulties of attempting to enforce one set of rules on a widely diverse market, from ICI to the sweet shop' (Fearnley and Page, 1994). In 1994 this state of universality was changed when provisions permitted under EU law to exempt small companies from the statutory audit were first adopted in the UK.

Initially, the size thresholds in UK law were set below the maxima given in the EU Company Law Directive (78/660/EEC), but over the next decade they were revised upwards several times, until in 2004 they matched the EU maxima. Throughout this period, there was considerable controversy over the appropriateness of the thresholds and impact it would have on the accountancy profession and the users of the accounts. Until recently, the debate in the UK was dominated by anecdotal evidence from the regulators and the profession, and the views of the users were largely ignored. Previous research shows the main users are the owner-directors (Page, 1984; Carsberg, Page, Sindall and Waring, 1985; Barker and Noonan, 1996), who use the statutory accounts for a range of internal and external purposes (Collis and Jarvis, 2000 and 2002). Their views are vital as they must weigh up the costs and benefits of having an independent audit.

The paper is organised as follows. The next section provides an overview of progress towards harmonisation in audit exemption for small companies in the 25 member states that currently make up the EU. In addition, it examines the case of the UK as an example of one of three countries that have now adopted the EU maxima for defining a small company for the purpose of audit exemption. This is followed by a review of evidence from the UK literature on the most appropriate level for defining a small company and the costs and benefits to the directors of having the accounts audited. From this review, hypotheses are developed and the next section goes on to describe the methodology for the study. The penultimate section presents the results of the analysis and the paper concludes with a discussion of the results and their implications.

[1] This supports the government's stance on evidence-based policymaking (Cabinet Office, 1999).

2. Introduction of audit exemption and progress towards harmonisation

2.1 Role of small firms in the economy

The introduction of audit exemption for small companies and other EU regulatory relaxations in financial reporting has its roots in the growing importance of smaller enterprises. Small businesses are 'the backbone of the European economy, acknowledged as a constant source of ideas, innovation and entrepreneurial skills, the principal providers of existing jobs and the main source of new employment' (European Commission, 2006a, p. 1).

Since the recessions of the 1980s there has been a considerable expansion in the number of micro businesses (1 to 9 employees), small businesses (10 to 49 employees) and medium-sized businesses (50 to 249 employees. In the UK, for example there were only 2.4m businesses at the start of 1980 but by 2005 this had increased by nearly 80% to 4.3m at the start of 2005. Most of this growth is accounted for by increased numbers of micro-businesses and one-person companies (SBS, 2002). Indeed, micro, small and medium-sized enterprises (collectively known as SMEs) now account for 99.9% of the 4.3m enterprises in the UK and contribute 59% of employment and 51% of turnover (SBS, 2006). In the EU, 99% of the 23m enterprises are SMEs and provide 75m jobs (European Commission, 2005).

As in many other EU countries, the majority of SMEs in the UK are unincorporated businesses operating as sole proprietorships or general partnerships. Nevertheless, at the start of 2005, 24% of small enterprises were small companies (0-49 employees) and 95% of the 1,084,700 limited companies on the register were small companies (SBS, 2006).

2.2 Influence of the EU 4th Company Law Directive

Under Article 51 of the 4th Company Law Directive (78/660/EEC), all limited companies are required to have their annual accounts audited, but Article 11 gives member states an option to exempt small companies. Table 1 shows small companies as a proportion of the total number of limited companies in each member state for 2003[2] and, hence, those likely to be exempt. At the time the data was compiled, the EU had 19 members, including 4 accession countries. However, by 1 May 2004, Cyprus, Latvia, Lithuania, Malta, Poland and Slovakia had completed the process of accession, bringing the total accession countries to 10 and the number of member states to 25[3] (Day and Taylor, 2005).

[2] 2003 is the latest year for which figures are available. A note in the original publication explains the statistics are only indicative because the database contained a limited part of the population of companies.

[3] The EU-25 comprises the original members of the European Economic Community created by the Treaty of Rome in 1957: Belgium, France, Germany, Italy, Luxembourg and the Netherlands. They were joined by the Denmark, Ireland and the UK in 1973; Greece in 1981; Portugal and Spain in 1986; Austria, Finland and Sweden in 1995; Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland and Slovakia. Romania and Bulgaria are due to join in 2007.

Table 1
Small companies as a percentage of total companies in EU-19

Country	*% small in 2003*
Austria	90
Belgium	95
Czech Republic*	83
Denmark	93
Estonia*	97
Finland	94
France	94
Germany	89
Greece	85
Hungary*	67
Ireland	94
Italy	85
Luxembourg	77
Netherlands	89
Portugal	85
Slovenia*	78
Spain	95
Sweden	95
UK	95
Total	**94**

* Accession countries
Adapted from European Commission, 2006b, p. 7.

According to the 4th Company Law Directive, a small company is one that for two consecutive years does not exceed any two of the three size thresholds shown in Table 2. These thresholds are subject to periodic revision by the European Commission for indexation purposes, and by way of example the table shows the maxima in 1999, 2003 and those that have been agreed for 2008.

Table 2
Size criteria for EU audit exemption

	Maxima in 1999	*Maxima since 2003*	*Maxima from 2008*
Turnover	€5.0m	€7.30m	€8.8m
Balance sheet total	€2.5m	€3.65m	€4.4m
Average number of employees	50	50	50

Adapted from DTI, 1999a (Annex B) and European Commission, 2006b (p. 6).

2.3 Turnover thresholds in EU-25

It is useful to consider the extent to which national jurisdictions in the 25 member states that comprise the EU have adopted audit exemption. However, the degree of variation must be interpreted within the context of country-specific social, economic and cultural differences;

the different notions held by national regulators about the objective of financial reporting; and the relative importance of principles and rules (Haller and Walton, 1998). In addition, it must be borne in mind that 10 of the 25 member states are accession countries and have only recently been admitted to the EU. Moreover, eight of these are transition economies and two are emerging market economies (Day and Taylor, 2005), which further complicates inter-country comparison. Therefore, care must be taken when drawing conclusions from Table 3, which gives an indication of turnover thresholds in the 25 member states in early 2006 by grouping them into bands.[4]

Table 3
Turnover thresholds in EU-25

Turnover category	*Country (ordered by size of turnover threshold)*
No exemption	Denmark,[5] Sweden, Malta
Up to €1m	Hungary, Latvia, Estonia, Finland, Slovakia
€1.1m - €2m	Ireland
€2.1m - €3m	Czech Republic, Lithuania, Greece, Portugal
€3.1m - €4m	France
€4.1m - €5m	Slovenia, Spain, Poland
€5.1m - €6m	None
€6.1m - €7m	Belgium, Luxembourg, Austria, Italy
€7.1m - €7.3m	Cyprus, Netherlands, Germany, UK

Adapted from European Commission, 2006b, p. 7.

Among the accession countries, Slovenia, Poland and Cyprus have adopted relatively high thresholds. The turnover and the balance sheet total thresholds in Cyprus are very close to the EU ceilings, but only Netherlands, Germany and the UK have the adopted the EU maxima. Therefore, in the 12 years since the 4th Company Law Directive was introduced in 1994, Europe has achieved 12% harmonization in terms of adoption of the maximum thresholds. Since national jurisdiction can set lower thresholds than the maxima, an alternative measure is to say that 92% of member states currently offer audit exemption to small companies using country-specific size criteria or the EU maxima.

2.4 The case of the UK

In order to examine the development of deregulation in this particular aspect of financial reporting by small companies in more detail, the case of the UK is now considered. The development of company law in the UK is the responsibility of the Department of Trade and Industry (DTI). It is shaped by national policies and influenced by EU Directives (Fearnley and Hines, 2003).

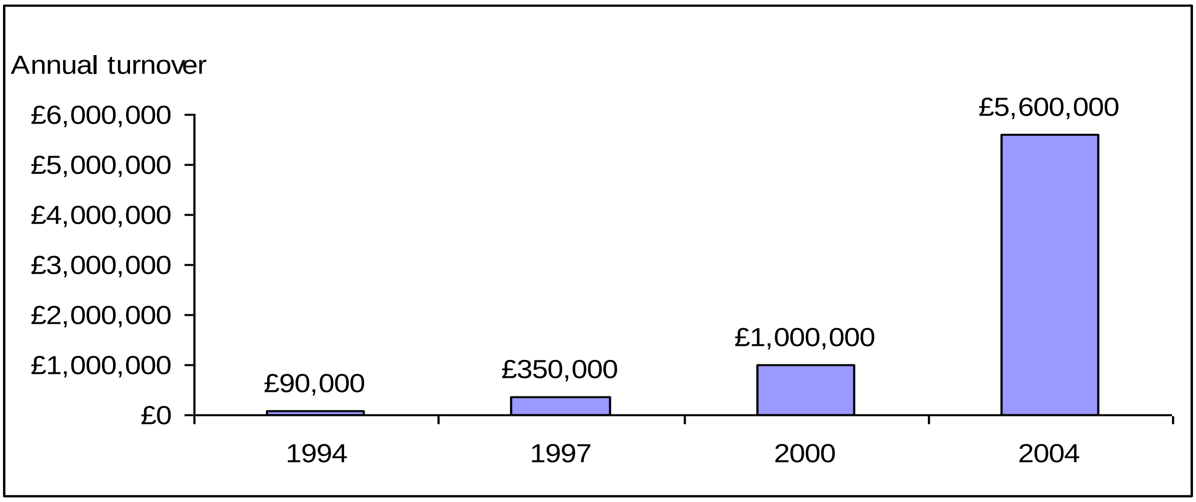
Audit exemption was first introduced in 1994 through an amendment to section 249A of the Companies Act 1985 (SI 1994/1935), which allowed a company with a turnover up to

[4] This table is based on a bar chart, which cannot be reproduced without the underlying data. However, the source is believed to be based on a report by Ramboll Management for the European Commission in December 2005, which appears to have flaws due to currency conversion or other problems.
[5] In March 2006 Denmark introduced exemption if a company fulfilled two of the following three conditions: turnover under €400,000, balance sheet total under €200,000 and fewer than 12 employees.

£90,000 (lower than the EU maximum threshold at that time) and a balance sheet total up to £1.4m and up to 50 employees to forgo the statutory audit, unless a full audit was required by shareholders who held at least 10% of share capital. Companies with a turnover of between £90,000 and £350,000 were given the option of filing a simpler audit exemption report (AER), but this lesser form of assurance was dropped in 1997, leaving companies with a turnover of £350,000 or less exempt from the statutory audit (SI 1997/936). However, a further condition imposed at that time required that the company also qualified as 'small' for the purpose of filing abbreviated accounts.[6]

Under (sections 247 and 247A of the Companies Act 1985), apart from certain entities that are excluded for reasons of public interest, a company qualifies as 'small' if it meets any two of three basic size tests based on turnover, balance sheet total and average number of employees.[7] Apart from a newly incorporated entity, the conditions must have been satisfied in two of the last three years (similar conditions apply to small groups). In 2000 the turnover threshold was increased to £1m (SI 2000/1430) with proposals to raise levels for all financial reporting purposes to the substantially higher EU maxima (DTI, 2000). In May 2003 the EU thresholds were adjusted for indexation purposes to turnover £5.6m and balance sheet total £2.8m and these thresholds were adopted in UK law with effect from January 2004 (SI 2004/16). This process of step change in the turnover threshold in the UK to the EU maxima is summarised in Chart 1.

Chart 1
Changes in the turnover threshold for audit exemption in the UK 1994 – 2004



[6] The options set out in Section 246 of the Companies Act (as revised by SI 1997/220) allow small and medium-sized companies to prepare and file either full or abbreviated financial statements with the Registrar, but they must provide full financial statements for their shareholders. Abbreviated accounts must be accompanied by a special auditors' report, unless the company is exempt from the requirement for an audit by virtue of sections 249A(1) or (2) or 250 of the Companies Act 1985.

[7] Most of the requirements of the Companies Act 1985 also apply to limited liability partnerships, a new form of business vehicle permitted in the UK since April 2001.

3. Review of the literature

3.1 Scope of the review

Since the regulatory framework for corporate financial reporting is currently country-specific, inter-country comparison is problematic. A second problem relates to the number of changes to the size criteria for defining a small company in the UK, which means that the results of older studies have little relevance to today's tranche of small companies. A further problem is that several past studies have been based on too small a sample to permit generalisation (for example, Page, 1984; Freedman and Goodwin, 1993; Pratten, 1998; Lin-Seouw, 2001). Therefore, this review considers the UK literature on the debate over the most appropriate level for defining a small company for the purpose of audit exemption and identifies previous studies that have reported on the opinions of the accountancy profession and the main users of the accounts: the owner-directors. This leads to the development of hypotheses relating to the motivation of the directors of small companies to demand a voluntary audit.

3.2 Size factors

The rationale for audit exemption in the UK has been is that it relieves the unnecessary cost burdens that fall disproportionately on small companies (DTI, 1995; DTI, 1999b). Implicit in this argument is the notion that below a certain size, the costs outweigh the benefits and vice versa. In 1999 the Trade Secretary, claimed that the average company would save £5,000 as a result of discontinuing the audit, but the profession responded that a more realistic figure was between £1,200 and £1,500 (Güntert, 2000).

The accountancy profession's views on the most appropriate level for audit exemption varied. A survey by the Small Practitioners Association in 1999 found that 92% of accountants 'supported exemption for all private, owner-managed, small limited companies' (Mitchell, 1999, p. 21). In 2003 the ICAEW described the proposal to raise thresholds to the EU maxima as 'a positive step to ease the burdens on business' (Accountancy, 2003, p. 9), but others in the ICAEW argued that would reduce the quality of the information put on public record (Jones, 2003). The ACCA was against lifting the limits, arguing that it would 'take away the value-added aspect which comes with the audit' (Beckerlegge, 1999, p. 21) and raise the risk of fraud (Rose, 2003).

The precise number of companies taking up exemption in the early years has not been published, but Güntert (2000, p. 75) reported that at least 40% of those eligible when the turnover threshold was £350,000 were having a voluntary audit (implying a 60% take-up rate). However, he comments that 'it is not clear whether thee companies were deliberately choosing to continue with an audit or simply didn't realise that it wasn't needed!'

A MORI survey of 176 companies (ACCA, 1998) forecast that approximately 40% of companies with a turnover between £350,000 and £1.5m were likely to opt for audit exemption if the threshold were raised to a speculative level of £1.5m. In 2003 the government anticipated that raising thresholds to the EU maxima would add a further 69,000 companies to the existing 822,000 companies classified as small (Eaglesham, 2003). Unfortunately, national statistics based on the proportion of small companies that might be eligible are not available. However, one year after thresholds were raised to the EU maxim it was estimated that 83% of non-dormant small companies had registered audit exempt accounts (either full or abbreviated financial statements) and 17% were having a voluntary audit (POB, 2006, p. 33).

In 1999, a survey of 385 companies filing full accounts with a turnover between £0.5m and £4.2m (the upper limit being the EU maximum at that time, which it was above the UK threshold of £350,000) found that in 29% of companies, the directors would forgo the audit if they had a choice, whilst 63% would have a voluntary audit (Collis and Jarvis, 2000). Based on this data, a subsequent study by Collis, Jarvis and Skerratt (2004), found that turnover alone was able to represent size to explain the demand for voluntary audit among the companies surveyed. This provides the basis for the size hypothesis tested in this paper:

> H1 *Ceteris paribus*, the likelihood of the directors choosing a voluntary audit increases with size, as measured by turnover.

3.2 Management factors

Writing as a member of the accountancy profession, Güntert (2000, pp. 75 and 76) claimed that the benefits of an audit include assurance for the directors in independent companies. 'The audit provides assurance by giving them increased confidence in the reported figures, the general financial position of the business, the financial basis for making decision, the reliability of the accounting system and the information it produces, and the early identification of trends that could lead to failure.' In his view, an audit also increases the credibility of the accounts.

A study by Collis *et al.* (2004) based on data collected by Collis and Jarvis (2000) identified several factors that influence the demand for voluntary audit in companies with a turnover between £0.5m and £4.2 m (the EU maxima at the time of the study). The results suggested that turnover was less important than qualitative factors associated with the directors' views on the audit improving the quality of information and providing a check on internal records. Although the study had used a hypothetical construct for measuring the financial sophistication of the principal director, this variable was not significant. Nevertheless, intuition suggests that knowledge of the relative costs and benefits of an independent audit of the accounts is likely to influence the decision to take up exemption if the company is eligible to do so.

This literature leads to the development of the following management hypotheses:

> H2 *Ceteris paribus*, the likelihood of the directors choosing a voluntary audit increases with perceptions that the audit provides a check on accounting records and systems.
>
> H3 *Ceteris paribus*, the likelihood of the directors choosing a voluntary audit increases with perceptions that the audit improves the quality of the financial information.
>
> H4 *Ceteris paribus*, the likelihood of the directors choosing a voluntary audit increases with perceptions that the audit improves the credibility of the financial information.
>
> H5 *Ceteris paribus*, the likelihood of the directors choosing a voluntary audit increases if they have a degree, a professional/vocational qualification or

have studied/trained in business or management subjects (surrogate for financial sophistication)

3.3 Agency factors

Agency theory (Jensen and Meckling, 1976) suggests that where there is information asymmetry, the agent will be willing to bear the cost of supplying information to support the relationship with the principal. In a small company, a principal is anyone who is distant from the actions of management and is unable to verify those actions, such as external shareholders, lenders and creditors. Information asymmetry may also be present amongst internal shareholders if they lack the necessary skills to interpret financial information (Power, 1997).

An independent audit of internal controls reduces inherent risk (the likelihood of a material misstatement arising) and control risk (the likelihood of the accounting control detecting any material misstatement), which may be high in small companies. Whilst an audit does not set out to detect fraud, it can play a key role in detecting material fraud and also acts as a deterrent to fraudsters (Güntert, 2000).

Collis and Jarvis (2000) identified the main non-statutory recipients of the statutory accounts of small companies in the UK as being the bank/lenders, the tax authorities, managers and creditors. Recent evidence from the directors companies and accountants collated by the Professional Oversight Board (POB, 2006) confirms that these are the users to whom voluntary audit is considered useful. The study by Collis *et al.* (2004) demonstrates that the agency relationships that have a significant impact on the demand for voluntary audit at those with the bank/lenders and those with external owners.

This literature underpins the following agency hypotheses:

H6 *Ceteris paribus*, the likelihood of the directors choosing a voluntary audit increases if they are not wholly family owned.
H7 *Ceteris paribus*, the likelihood of the directors choosing a voluntary audit increases if they have external shareholders without access to internal financial information.
H8 *Ceteris paribus*, the likelihood of the directors choosing a voluntary audit increases if they give a copy of their statutory accounts to the bank and other providers of finance.
H9 *Ceteris paribus*, the likelihood of the directors choosing a voluntary audit increases with perceptions that the audit has a positive effect on the company's credit rating score.

4. Methodology

4.1 Purpose of the study

The study by Collis *et al.* (2004) suffers from two limitations: first, the sampling frame was not fully representative of companies with a turnover of less than £0.5m at that time; second, the significant increase in the exemption level since 1999 when the underlying data was collected means the views of the directors of a wider tranche of companies must be sought.

This paper is based on data collected by Collis (2003) which addressed the above deficiencies. The purpose of the paper is to present the results of a logistic regression study based on a survey in 2003 commissioned by the Department of Trade and Industry (DTI)[8] as part of a the consultation on proposals to raise the UK audit exemption thresholds to the EU maxima. The study addresses the following overarching research question:

> What is the sufficiency of turnover as a surrogate for the motivation of the directors to voluntarily demand audit assurance?

The nine hypotheses developed in the previous section are tested using the following general logistic regression model:

Voluntary audit decision = f (turnover, management factors, agency factors)

4.2 Data collection

The data was collected via a postal questionnaire survey of the directors of active, independent, unlisted, limited companies. The population consisted of 3,202 private limited companies on the FAME database[9] that had filed full accounts[10] for 2002 and met the following size criteria (the EU maxima at the beginning of 2003 when the study was conducted):

- turnover not exceeding £4.8m
- balance sheet total not exceeding £2.4m
- up to 50 employees.

The questionnaire used in the survey was developed and piloted through interviews with three auditors with small company clients and five directors of small companies. It was posted to a named director, together with an accompanying letter and prepaid envelope in April 2003. A reminder was sent in May enclosing another copy of the questionnaire and prepaid envelope, to increase the response rate (Kervin (1992) and this identified some companies that had ceased trading, moved away or where the owner was absent/unable to participate. This reduced the list to 2,633 companies from which 790 usable replies were received by the end of May, giving a response rate of 30%.

There is no sampling frame that categorises companies according to the size criteria in Companies Act 1985. Using the category 0 – 49 employees as a proxy, government statistics show that the population of small companies at the start of 2003 was 873,320 (SBS, 2003, Table 2). Therefore, a sample of 790 is sufficient to represent that population, as it greatly exceeds the minimum acceptable size of 384 suggested by Krejcie and Morgan (1970, p. 608). Tests for non-response bias found that non-respondents were likely to have been smaller in terms of number of employees. This indicates that the sample contained fewer companies with no employees or very few employees compared with the population.

[8] The DTI is the government department responsible for company law.
[9] FAME contains up to 10 years' information on British companies registered at Companies House (one month after the accounts are filed), including more than 2.3m private companies of all sizes.
[10] Companies filing abbreviated accounts do not disclose all three figures and, therefore, were not represented in the sample.

However, in terms of turnover and balance sheet total, the results showed that the sample was representative of the body of companies from which it was drawn.

4.3 The sample companies

In 94% of cases the questionnaire was answered by the principal director, finance director or company secretary. The position and the educational profiles of the respondents suggested they would have both tacit and formal knowledge with which to answer the questions and weigh up the costs and benefits of the audit when making the audit decision.

As in the wider population, the majority of the sample was at the smaller end of scale in terms of size: 80% had a turnover not exceeding £1m, 89% had a balance sheet total not exceeding £1.4m, and 78% had less than 10 employees The vast majority (90%) had between one and four shareholders and in 74% of companies all shareholders had access to internal financial information, from which it can be deduced that these were owner-managed. In 68% of cases, the company was wholly family-owned.

4.4 Variables in the analysis

Table 4 describes the variables in the analysis and Table 5 presents descriptive statistics for the variables where appropriate.[11]

Table 4
Description of variables

Variable	*Description*	*Expected sign*	*Hypothesis tested*
VOLAUDIT	Whether company would have a voluntary audit (1 = yes, 0 = otherwise)	Dependent variable	
TOVER	Size of company as measured by turnover (£m)	Positive	H1
CHECK	Extent of agreement that the audit provides a check on accounting records and systems (1 = disagree, 5 = agree)	Positive	H2
QUALITY	Extent of agreement that the audit improves the quality of the financial information (1 = disagree, 5 = agree)	Positive	H3
CREDIBLY	Extent of agreement that the audit improves the credibility of the financial information (1 = disagree, 5 = agree)	Positive	H4
EDUCATN	Whether director has a degree, professional/vocational qualification or has studied or trained in business/ management subjects (1 = yes, 0 = otherwise)	Positive	H5
FAMILY	Whether company is wholly family-owned (1 = yes, 0 = otherwise)	Negative	H6
EXOWNERS	Whether company has shareholders without access to internal financial information (1 = yes, 0 = otherwise)	Positive	H7
BANK	Whether statutory accounts are given to the bank and other providers of finance (1 = yes, 0 = otherwise)	Positive	H8
CREDITSC	Extent of agreement that the audit has a positive effect on the company's credit rating score (1 = disagree, 5 = agree)	Positive	H9

[11] Strictly speaking, the mean cannot be calculated for ordinal data, since the ranks represent nominal categories. It is given here as an indication of central tendency. The multivariate statistics were based on ranked data.

Table 5
Descriptive statistics

Variable	*Measurement scale*	*N*	*Minimum*	*Maximum*	*Mean*	*SD*
VOLAUDIT	Nominal	772	0	1	N/A	N/A
TOVER	Ratio	790	0.000054	4.738271	0.691071	1.119449
CHECK	Ordinal	697	1	5	4.05	1.19
QUALITY	Ordinal	687	1	5	3.35	1.38
CREDIBLY	Ordinal	688	1	5	3.95	1.18
EDUCATN	Nominal	790	0	1	N/A	N/A
FAMILY	Nominal	785	0	1	N/A	N/A
EXOWNERS	Nominal	722	0	1	N/A	N/A
BANK	Nominal	790	0	1	N/A	N/A
CREDITSC	Ordinal	681	1	5	3.55	1.29

Apart from size data, the questionnaire survey was the source of all data analysed (non-responses were excluded).

- Data for the size variable (TOVER) were obtained from the 2002 financial statements on FAME and converted from £k to £m to aid the interpretation of the results.
- CHECK, QUALITY, CREDIBLY and EDUCATN represent management factors (questions 15a, 15c, 15d and 23). EDUCATN is a dummy variable, which is a proxy for the director's financial sophistication and knowledge of the relative costs and benefits of the audit. FAMILY, EXOWNERS and BANK are dummy variables (questions 1, 3 and 18) and together with CREDITSC (question 15h) represent the agency factors.

4.5 Multicollinearity

The data was examined for collinearity by examining a correlation matrix of the ordinal and ratio variables.[12] Table 6 shows that none of the correlation coefficients indicate high levels of correlation (≥ 0.9), which would make it hard to identify the predictive power of individual variables and increase the probability that a good predictor of an outcome will be found non-significant (Kervin, 1992).

Table 6
Correlation matrix of ratio and ordinal independent variables

	TOVER	*CHECK*	*QUALITY*	*CREDIBLY*	*CREDITSC*
TOVER	1.000				
CHECK	0.100*	1.000			
QUALITY	0.105*	0.626*	1.000		
CREDIBLY	0.165*	0.621*	0.661*	1.000	
CREDITSC	0.192*	0.504*	0.532*	0.554*	1.000

N = 790 (cases excluded pairwise with minimum N = 671)
* Correlation is significant at the 0.01 level (2-tailed)

[12] EDUCATN, FAMILY, EXOWNERS and BANK are not suitable for this procedure as they are measured on a nominal scale.

5. Results

5.1 Univariate analysis

The survey found that 57% of respondents supported the UK government's proposal to raise the audit exemption threshold to £4.8m. Further analysis shows that among companies that were likely to be eligible for the first time if thresholds were raised, 79% predicted they would have a voluntary audit. Looking at the sample as whole, 56% intended to take up the option to forgo the audit and 42% would have a voluntary audit if they were exempt[13] and these are the two groups in the dependent variable VOLAUDIT.

There are some reservations about basing an analysis on predicted behaviour, but in this case it is justified as the forecasts are almost identical to the decision they made in their 2002 accounts. Using a maximum turnover of £1m as a proxy for eligibility for exemption (the threshold in 2002), it was found that 58% of the 633 companies in this category had taken up exemption and 42% had not.

The main reason given for not having their accounts audited in 2002 was lower accountancy fees, but few directors were able to provide details of the specific amount saved. The mode for the 43 that reported specific savings was £1,000, which would appear to be valid as it matches the mode of the audit fees disclosed in the companies' 2002 accounts. These fees ranged from £114 to £19,000, but it is likely that these figures are estimates, as it was apparent from the preliminary interviews with auditors that there is considerable overlap in work involved in preparing the year-end figures, identifying source documents and checking control systems, which are part of the audit.

In 30% of companies the shareholders had requested an audit in 2002 and in 27% it was the bank or other provider of finance requesting the accounts were audited. A large proportion of companies (44%) had external funding in addition to share capital and retained profit. The most widely used source of external finance was the bank (used by 69% of companies) and 51% of companies give a copy of their statutory accounts to the bank or other lender.

5.2 Preliminary tests

Table 7 shows that the results of the Mann-Whitney tests conducted to establish the independence of the two groups in the dependent variable VOLAUDIT and the independent variables measured on a non-parametric ratio scale (TOVER) or ordinal scale (CHECK, QUALITY, CREDIBLY, CREDITSC) were significant ($p < 0.01$).

[13] 2% did not respond.

Table 7
Mann-Whitney tests on non-parametric variables

Variable	*VOLAUDIT (Number of companies)*			*Mann-Whitney U*	*Z*	*p*
	No	Yes	Total			
TOVER	438	334	772	40203.50	-10.731	0.000
CHECK	362	320	682	37629.00	-8.519	0.000
QUALITY	356	316	672	32083.00	-9.864	0.000
CREDIBLY	358	315	673	35323.00	-8.851	0.000
CREDITSC	355	312	667	33910.00	-8.928	0.000

Chi-square tests were used to measure the association between the two groups in the dependent variable (VOLAUDIT) and each independent variable measured on a dichotomous nominal scale (FAMILY, EXOWNERS, BANK, EDUCATN). Table 8 provides evidence of a significant positive association for FAMILY, EXOWNERS and BANK ($p < 0.01$). However, the result for EDUCATN is not significant ($p > 0.05$), which provides evidence to reject H5.

Table 8
Chi-square tests on nominal independent variables

Variable	*Chi-square*	*df*	*p*
EDUCATN	0.888	1	0.346
FAMILY	33.103	1	0.000
EXOWNERS	17.406	1	0.000
BANK	49.468	1	0.000

N = 772 (cases excluded pairwise with minimum N = 706)

5.3 Sufficiency of turnover

The logistic regression models shown in Table 9 extend previous studies by examining the sufficiency of turnover as the sole predictor of the demand for voluntary audit in small companies, as a surrogate for agency factors and as a surrogate for management factors.

- Panel A presents the analysis where the size variable, TOVER, is regressed alone against VOLAUDIT. The result is significant ($p \leq 0.05$) and the note beneath the table shows that the pseudo R^2 indicates that this model explains 18% of the variance in the dependent variable.
- Panel B present the second analysis where the management variables are entered together with TOVER and regressed against VOLAUDIT. In this case, all the results are significant except for CREDIBLY, which provides evidence to reject H4. The pseudo R^2 indicates that this model explains 34% of the variance in the dependent variable, thus demonstrating that the inclusion of the management variables improves the goodness of fit.
- Panel C presents the third analysis where the agency variables entered together with TOVER and regressed against VOLAUDIT. All the results are significant and the

regression coefficient (B) for FAMILY shows the expected negative relationship with the dependent variable. However, the pseudo R^2 shows this model explains only 31% of the variance in the dependent variable.

Table 9
Logistic regression model of demand for a voluntary audit: Sufficiency of turnover

Variable	*B*	*SE*	*Wald*	*df*	*p*	*Exp(B)*
Panel A Size factors						
TOVER	0.834	0.097	73.909	1	0.000	2.302
Constant	-0.790	0.092	74.183	1	0.000	0.454
Panel B Size and management factors						
TOVER	0.750	0.106	50.271	1	0.000	2.118
CHECK	0.284	0.110	6.674	1	0.010	1.328
QUALITY	0.404	0.093	18.774	1	0.000	1.497
CREDIBLY	0.190	0.114	2.777	1	0.096	1.209
Constant	-3.911	0.440	78.924	1	0.000	0.020
Panel C Size and agency factors						
TOVER	0.505	0.109	21.691	1	0.000	1.658
FAMILY	-0.687	0.198	12.000	1	0.001	0.503
EXOWNERS	0.702	0.252	7.752	1	0.005	2.018
BANK	0.434	0.203	4.574	1	0.032	1.543
CREDITSC	0.559	0.080	48.299	1	0.000	1.749
Constant	-2.378	0.353	45.501	1	0.000	0.093

Model summaries
Panel A: N = 772; Chi-square 112.648; df 1; $p < 0.01$; -2 Log likelihood 943.518; Nagelkerke R^2 0.182
Panel B: N = 663; Chi-square 192.640; df 4; $p < 0.01$; -2 Log likelihood 724.178; Nagelkerke R^2 0.337
Panel C: N = 611; Chi-square 159.831; df 5, $p < 0.01$; -2 Log likelihood 685.621; Nagelkerke R^2 0.307

5.4 Size, management and agency factors

It is clear for the preceding analysis that size, management and agency factors contribute to the explanation of the audit decision in small companies. Therefore, a final regression was run in which turnover and the management and agency variables that gave significant results in Table 9 were entered simultaneously in the model.

The results in Table 10 shows the regression coefficient (B) for FAMILY has the expected negative sign and the results are all significant, providing evidence to accept H1 to H3 and H6 to H9. The higher values of the Wald statistics and lower probability statistics for TOVER, QUALITY and FAMILY compared to the other variables suggest these are the most influential factors. Examining the goodness of fit, the pseudo R^2 indicates that this model explains 39% of the variance in the dependent variable, VOLAUDIT, which is an improvement over the three models presented in Table 9.

Table 10
Logistic regression model of demand for a voluntary audit: Size, management and agency factors

Variable	*B*	*SE*	*Wald*	*df*	*p*	*Exp(B)*
TOVER	0.561	0.116	23.428	1	0.000	1.753
CHECK	0.295	0.117	6.375	1	0.012	1.343
QUALITY	0.442	0.096	21.320	1	0.000	1.557
FAMILY	-0.778	0.211	13.667	1	0.000	0.459
EXOWNERS	0.644	0.265	5.926	1	0.015	1.904
BANK	0.449	0.215	4.357	1	0.037	1.567
CREDITSC	0.257	0.094	7.548	1	0.006	1.293
Constant	-4.003	0.513	60.798	1	0.000	0.018

Model summary
N = 602; Chi-square 206.889; df 7; $p < 0.00$; -2 Log likelihood 625.959; Nagelkerke R^2 0.388

6. Conclusions

In the period since 1994 when the EU 4th Company Law Directive introduced an option allowing national jurisdictions to exempt small companies from the statutory audit, Europe has moved a long way towards achieving harmonization. A total of 92% of the 25 countries that comprise the EU offer audit exemption to small companies. At the beginning of 2006, 80% were using country-specific size criteria and the remaining 12% had adopted the EU maxima. The UK is one of the countries now using the EU maxima, and this was achieved by raising the thresholds in three stages over the period 1994 to 2003.

The case of the UK has been further examined by studying the motivation of the directors to voluntarily demand audit assurance. The study is based on data collected from the principal directors of a representative sample of 790 companies not exceeding £4.8m turnover, £2.4m balance sheet total and 50 employees (Collis, 2003). These were the EU maxima for audit exemption at the time of the study in 2003, which it had been proposed the UK would adopt.

It is clear that the directors were divided in their views on whether the cost of an audit outweighs the benefits or vice versa. A significant proportion (42%) of directors predicted they would have a voluntary audit of the accounts if the company were eligible. The validity of their future intentions is strengthened by the fact that the proportion of companies already having a voluntary audit was also 42% (using the UK turnover threshold in force at the time as a proxy for eligibility).

A general interpretation of the results of logistic regression study is that directors who are willing to bear the cost of the audit do so because of their beliefs about the net benefits to the company and the role the audited accounts play in reducing the cost of capital and supporting agency relationships where there is information asymmetry. The results demonstrate that turnover is not sufficient alone as a surrogate for the relative costs and benefits of independent audit in small companies in the UK. It addition, it was found that turnover plus the management factors or turnover plus the agency factors were inferior as explanatory models to one that included turnover plus management factors plus agency factors. This indicates that size contributes something over and above two specific management factors and four agency factors; an intuitive explanation is that the size variable represents audit cost relative to the company's turnover.

The specific results show that the likelihood of the directors choosing a voluntary audit is positively correlated with:

- Size as measured by turnover
- Management view that
    - Audit provides a check on accounting records and systems
    - Audit improves the quality of the financial information
- Agency relationships where:
    - The company has non-family shareholders (ie it is not wholly family-owned)
    - The company has external shareholders not involved in day-to-day management
    - The company gives the annual financial statements to the bank and other lenders
    - Management holds the view that audit improves the company's credit rating score

In the UK, raising the thresholds to meet EU harmonisation objectives has meant that the enlarged category of small companies contains two subgroups with differing needs. Deregulation means directors are free to choose and in a significant proportion of cases it would appear that the benefit of an audit outweighs the costs. This will be reassuring news to the accountancy profession, particularly small accountants who rely on fee income from auditing the accounts of small companies. It will also be of interest to banks, lenders and other creditors who rely on the audited financial statements for assessing and monitoring risk. However, lenders and creditors have the economic power to ensure that their needs are met and this UK study shows it is important that regulators in other EU member states protect the needs of minority shareholders requiring the assurance of an independent audit.[14]

[14] The survey instrument used in the UK by Collis (2003) has been successfully translated and used in Denmark and contributed to data gathering prior to the introduction of audit exemption in that country in 2006.

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Appendix
Extract of questionnaire showing variables analysed

1. Is the company a family-owned business? *(Tick one box only)*
Wholly family-owned
Partly family-owned
None of the shareholders are related

3. How many shareholders (owners) does the company have?
(a) Total number of shareholders
Breakdown:
(b) Number of shareholders with access to internal financial information
(c) Number of shareholders without access to internal financial information

11. If the statutory accounts were not audited last year but were audited previously, have overall accountancy costs decreased?
No
Yes, by approximately £

13. Do you think the turnover threshold for exemption from the statutory audit should be increased from £1m to £4.8m?
(Tick one box only)
Yes, increase to £4.8m
No, stay at £1m
Other *£m*

14. Would you have the accounts audited even if the company were not legally required to do so?
(Tick one box only)
Yes, the accounts are already audited voluntarily
Yes, the accounts would be audited voluntarily
No

Please give reasons for either answer

……

……...

15. What are your views on the following statements regarding the audit?
(Circle the number closest to your view)

	Agree				Disagree
(a) Provides a check on accounting records and systems	5	4	3	2	1
(b) Helps protect against fraud	5	4	3	2	1
(c) Improves the quality of the financial information	5	4	3	2	1
(d) Improves the credibility of the financial information	5	4	3	2	1
(e) Provides assurance to shareholders	5	4	3	2	1
(f) Provides assurance to the bank and other lenders	5	4	3	2	1
(g) Provides assurance to suppliers and trade creditors	5	4	3	2	1
(h) Has a positive effect on company's credit rating score	5	4	3	2	1

Other *(please state)*

……

……...

18. Apart from Companies House, who normally receives a copy of the company's statutory accounts?
(Tick as many boxes as apply)

(a) Shareholders ☐
(b) Bank and other providers of finance ☐
(c) Directors/managers who are <u>not</u> shareholders ☐
(d) Employees who are <u>not</u> shareholders ☐
(e) Major suppliers and trade creditors ☐
(f) Major customers ☐
(g) Inland Revenue ☐
Other *(please state)* ☐

....

19. If the accounts were audited last year, is it because any of the following users requested it?
(Tick as many boxes as apply)

(a) Shareholders ☐
(b) Bank and other providers of finance ☐
(c) Major suppliers and trade creditors ☐
(d) Major customers ☐
(e) Inland Revenue ☐
Other *(please state)* ☐

....

20. Apart from capital invested by the shareholders and retained profit, is the company currently financed by any of the following?
(Tick as many boxes as apply)

(a) Personal loans from family or friends. ☐
(b) Bank finance ☐
(c) Business angel capital ☐
(d) Venture capital ☐
(e) Leasing ☐
(f) Hire purchase ☐
(g) Factoring ☐
Other *(please state)* ☐

....

22. What is your position in the company?
(Tick one box only)

The sole director ☐
The principal director (eg managing director or chief executive) ☐
The finance director ☐
Other *(please state)* ☐

....

23. Do you have any of the following qualifications/training?
(Tick as many boxes as apply)

(a) Undergraduate or postgraduate degree ☐
(b) Professional/vocational qualification ☐
(c) Study/training in business or management subjects ☐