

*Size and the demand for voluntary audit in  
small companies in the UK*

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## *Size and the demand for voluntary audit in small companies in the UK*

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### **Abstract**

The purpose of this paper is to investigate the role of size as a proxy for qualitative factors that have a significant influence on whether small companies will have a voluntary audit. It builds on previous work by the author (Collis, 2003b; Collis, Jarvis and Skerratt, 2004) that has investigated the costs versus benefits of voluntary audit in small companies filing full accounts in the UK. The study is a further analysis of data from a random sample of 790 companies with a turnover up to £4.8m, balance sheet total up to £2.4m and up to 50 employees, collected via a postal questionnaire (Collis, 2003b). These were the maximum EU thresholds proposed for adoption in the UK at the time of the survey.

The earlier research found that 42% of the sample companies would have a voluntary audit if eligible for exemption and identified turnover and specific qualitative factors as important predictors of demand. The number of employees was not a significant factor. This study has demonstrated that turnover (but not balance sheet total) predicts whether the directors will consider the management benefits of audit outweigh the cost. These benefits are based on the directors' beliefs that audit improves the quality of the information, provides a check on accounting records and systems, and has a positive effect on the company's credit rating score. Balance sheet total was found to be more powerful than turnover for predicting whether the agency benefits of audit outweigh the cost. These benefits are associated with companies that are not wholly family-owned, there are external owners and the accounts are given to the bank and other providers of finance.

When both turnover and balance sheet total are included with the specific qualitative variables in the predictive model, balance sheet total is not significant. This suggests that turnover may be providing a proxy for the relative cost burden. Since there is no theory of size in financial reporting regulation of small companies, this paper contributes by offering a framework based on empirical evidence.

## 1. Introduction

For many years in the UK, all companies, apart from dormant companies, were required to have an independent audit. This external examination or, and expression of opinion on the statutory accounts demonstrates ‘the completeness, accuracy and validity of transactions which, when aggregated, make up the financial statements’ (Power, 1997, p. 24). However, in 1994 the Fourth Directive introduced changes that allowed EU member states to exempt small companies from the statutory audit. In the UK, the government set the qualifying thresholds below the EU maxima, but revised them upwards several times until, in 2003, they matched the EU ceilings. Throughout the nine-year period, there was considerable controversy over the appropriateness of the thresholds and this question is a key part of the wider ‘big GAAP/little GAAP’ debate on the need for different sets of generally accepted accounting principles for large and small entities. Until recently, these debates have been dominated by anecdotal evidence from policy-makers and the accountancy profession, and the views of company directors have been largely ignored. This is an important omission as the directors are the main users of the statutory accounts (Page, 1984; Carsberg, Page, Sindall and Waring, 1985; Barker and Noonan, 1996), which are used for a range of internal and external purposes (Collis and Jarvis, 2000 and 2002; Collis 2003a). Their views are vital as they must weigh up the costs and benefits of an independent audit.

The present study contributes to our knowledge of directors’ decisions regarding the audit. It provides a further analysis of data from a survey of small companies (Collis, 2003b) that was commissioned by the DTI during consultations over proposals to raise the exemption level to the EU maxima.<sup>1</sup> The paper investigates the role of size as a proxy for qualitative factors that have a significant influence on whether companies will have a voluntary audit and builds on the theoretical framework developed by Collis (2003b) and Collis, Jarvis and Skerratt (2004).

Section 2 of this paper reviews the development of differential audit requirements and the literature that provides the theoretical framework for the study. Section 3 describes the methodology, which paves the way for an examination and discussion of the results in Section 4. The final section draws conclusions about the implications of the findings.

## 2. Background to the study

### *2.1 Development of differential audit requirements*

Differential financial reporting in terms of size developed in the UK in the early 1980s, when the burgeoning number of smaller entities in the economy led to small companies<sup>2</sup> being offered a regulatory framework with some simplifications and concessions (little GAAP). In 1994 the EC Fourth Company Law Directive permitted national governments to dispense with the requirement for smaller entities to undergo an audit. In the UK, this led to an amendment of section 249A of the Companies Act 1985 (SI 1994/1935) to exempt a company that had a turnover up to £90,000 (lower than the EU maximum), balance sheet total up to £1.4m and up to 50 employees, unless a full audit was required

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<sup>1</sup> Therefore, the commissioning of the study supported the government’s stance on evidence-based policymaking (Cabinet Office, 1999).

<sup>2</sup> Most of the requirements of company law also apply to limited liability partnerships, a new form of business vehicle permitted since April 2001.

by shareholders holding at least 10% of share capital. A company with a turnover of between £90,000 and £350,000 had to have an accountant's report. This was dropped in 1997 when the turnover threshold was raised to £350,000 (SI 1997/936) and companies were also required to qualify as 'small' for the purpose of filing abbreviated accounts.<sup>3</sup> Under sections 247 and 247A of the Companies Act 1985, apart from certain companies that are excluded for reasons of public interest, a company qualifies as 'small' if it meets any two of three basic size tests shown in Table 1. Apart from a newly incorporated company, 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). At the time of the study in March 2003 these were: turnover £4.8m; balance sheet total £2.4m; employees 50. However, in May 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 towards European harmonisation is summarised in Table 1.

**Table 1 Audit exemption thresholds in the UK 1994 - 2004**

<i>Criteria</i>	<i>1994</i>	<i>1997</i>	<i>2000</i>	<i>Pre-May 2003 proposal</i>	<i>2004</i>
Turnover	£0.09m	£0.35m	£1m	£4.8m	£5.6m
Balance sheet total	£1.4m	£1.4m	£1.4m	£2.4m	£2.8m
Average employees	50	50	50	50	50

## 2.2 Size as a surrogate for costs versus benefits

The government's rationale for audit exemption is that it relieves unnecessary cost burdens that fall disproportionately on small companies (DTI, 1995; DTI, 1999). Implicit in this argument is the notion that below a certain size, the costs outweigh the benefits and vice versa. The profession's views on the most appropriate level for audit exemption are diverse. A survey conducted by the Small Practitioners Association found that '92% of accountants ... supported exemption for all private, owner-managed, small limited companies' (Mitchell, 1999, p. 21). The ICAEW was reported as describing the news that the thresholds could be raised 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 number of companies taking up exemption in the early years has not been published, but statistics for 2002/3 show that 676,300 companies (representing 57% of companies on the register) had filed either full or abbreviated accounts that were audit exempt (DTI,

<sup>3</sup> 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.

2003, p. 58). The government anticipates that raising thresholds from the 2000 levels to the 2004 levels would add a further 69,000 companies to the existing 822,000 companies classified as small (Eaglesham, 2003), although the proportion of small companies meeting the conditions for audit exemption is not known.

Until recently, the lack of reliable and up-to-date information on the costs and the benefits of the audit has limited the debate to anecdotal evidence, a number of small studies and opinion polls. Since the regulatory framework for financial reporting by small companies is currently country-specific and highly dynamic, it can be argued that the results of overseas studies and some of the older studies have little relevance. Moreover, many of the UK 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).

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. However, in 1999, a survey of the directors of 385 companies<sup>4</sup> filing full accounts and having a turnover up to £4.2m (the EU threshold at that time) found that 29% would forgo the audit if they had a choice, whilst 63% would have a voluntary audit (Collis and Jarvis, 2000, Collis, 2003a). A second survey of the directors of 790 companies filing full accounts and having a turnover up to £4.8m was conducted for the DTI (Collis, 2003b) found that 42% of those likely to be eligible at that time (ie those with a turnover up to £1m) had chosen a voluntary audit and the same proportion of those with a turnover up to £4.8m predicted they would have a voluntary audit if eligible in future. This suggests that for a significant proportion of companies filing full accounts, the benefits of having the accounts audited outweigh the costs.

### *2.3 Management and agency factors*

Analysis of the 1999 survey data by Collis *et al.* (2004) provided empirical evidence of several factors that influence the demand for a voluntary audit: 'It was found that turnover alone could represent size, but that size was less important than the directors' perceptions of the value of the audit in terms of improving the quality of information and providing a check on internal records. Agency relationships with [non-family] owners and lenders were also found to be significant influences on the demand for the audit' (Collis *et al.*, 2004, p. 87). The research also found that the director's educational profile was an influential factor.

An independent check on internal controls reduces the chance of material error. In small companies inherent risk (the likelihood of a material misstatement arising) and control risk (the likelihood of the accounting control detecting any material misstatement) may be high. Previous research shows that the main recipients of the statutory accounts of small companies are lenders, the Inland Revenue, managers, creditors and customers (Collis and Jarvis, 2000). This suggests that management may want the accounts audited to provide assurance to these internal and external users. Agency theory (Jensen and Meckling, 1976) suggests that the directors will be willing to bear the cost of the audit to support agency relationships with principals where there is information asymmetry. In small companies, a principal is anyone who is distant from the actions of management

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<sup>4</sup> The study achieved a 17% response rate from 2,287 companies.

and is unable to verify them, 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).

The survey for the DTI (Collis, 2003b) extended the findings of the 1999 survey (Collis *et al.*, 2004). The educational profile of the directors and number of employees were not found to be significant factors but, in addition to turnover and balance sheet total, six qualitative factors were found to explain the demand for voluntary audit. Management factors relate to belief that the audit:

- provides a check on accounting records and systems
- improves in the quality of the financial information
- has a positive effect on the company's credit rating score.

Agency factors relate to companies that:

- are not wholly family-owned
- have external shareholders who do not have access to internal financial information;
- give their statutory accounts to the bank and other lenders.

Beliefs about the beneficial effect of the audit on the company's credit rating score and its role in supporting agency relationships with external shareholders represent two additional influences on the audit decision not identified in the previous research.

#### *2.4 Purpose of the study*

The purpose of the present study is to build on previous research with a view to developing size theory in financial reporting by small companies in the UK. It is based on further analysis of the survey data collected for the DTI study (Collis, 2003) and addresses the following research question:

What is the role of size in the demand for voluntary audit by small private companies filing full accounts in the UK?

There is no theory of size in small company financial reporting, apart from widespread acknowledgement that the cost burden is disproportionate for small companies. Of the three size measures used in companies law (turnover, balance sheet total and employees), it can be argued that the higher the turnover, the lower the relative cost of the audit. It might also be argued that the higher the turnover, the higher the complexity of business activities; therefore, the greater the likelihood that the audit will bring management benefits by reducing risk as well as the cost of credit. To some extent, it can be argued that turnover also captures whether the company is large enough for the audit to agency benefits from the assurance provided to non-family and/or external shareholders, and lenders. However, the benefit in respect of agency relationships might be better represented by balance sheet total, since the higher this measure, the larger the capital

employed in the business in terms of equity capital and debt finance. In addition, it can be argued that the fixed asset element would represent collateral against borrowings.<sup>5</sup>

The general logistic regression model is:

$$\text{Voluntary audit decision} = f(\text{size, management factors, agency factors})$$

### **3. Methodology**

#### *3.1 Sample selection and data collection*

The analysis in this paper is based on a postal questionnaire survey of the directors of unlisted, private limited companies across all industries and regions in the UK (Collis, 2003). In March 2003, a list of private limited companies that had already filed their accounts for 2002 was drawn from FAME<sup>6</sup> across all industries and regions of Great Britain. As a proxy for qualifying as small under the proposed thresholds at the time of the study, the sample was selected on the basis of the company meeting all three of the following criteria in the 2002 accounts:

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

This resulted in a list of 3,202 companies that represented the population of companies of this size that had already filed their accounts. Since companies filing abbreviated accounts do not disclose all three figures, the sample consisted solely of companies that had filed full accounts. Dormant companies, subsidiaries, groups and holding companies were removed in order to retain only active, independent companies where financial reporting decisions would not be influenced by group policy. The questionnaire (see extract in appendix) was developed and piloted by conducting three interviews with auditors with small company clients and five interviews with directors of small companies. The questionnaire was posted to a named director, together with an accompanying letter and prepaid envelope in April 2003 with one reminder. At this stage a small number were eliminated as the company had ceased trading, moved away or the owner was absent/unable to participate. This reduced the list to 2,633 companies. By the cut-off date of 28 May 2003, 790 usable replies had been received, giving a response rate of 30%.

#### *3.2 Response rate*

According to Krejcie and Morgan (1970, p. 608), the size of the sample (790) is sufficient to represent the population of 3,202 from which it was drawn, as it greatly exceeds the minimum acceptable sample size of 343. 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

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<sup>5</sup> Although some fixed assets are sector sensitive (for example, construction and manufacturing companies are more likely to have plant and machinery; manufacturing and trading companies are more likely to carry stock), ownership of land and buildings is not industry specific.

<sup>6</sup> A database that 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.

employees compared with the population. 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.

### *3.3 Respondents and 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 companies were at the smaller end of scale in terms of ownership and size. The majority (90%) had 1 to 4 shareholders. In terms of size, 80% had a maximum turnover of £1m in their 2002 accounts, 89% had a maximum balance sheet total of £1.4m, and 78% had 0 to 10 employees.

In 74% of companies all shareholders had access to internal financial information, which implies that these companies were owner-managed, and 68% of the sample companies were wholly family-owned. This suggests that there is potential for information asymmetry among shareholders in up to one-third of the sample companies.

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). Indeed, 51% of the sample companies give a copy of their statutory accounts to the bank and other providers of finance. In 2002, the bank and other providers of finance had requested audited accounts in 27% of companies, whilst the shareholders had requested the accounts to be audited in 30% of companies.

A maximum turnover of £1m was used as a proxy for eligibility for audit exemption in the 2002 accounts. Of the 633 companies in this category, 58% had filed exempt accounts whilst 42% had filed audited accounts. The main reason given for not having the accounts audited was lower accountancy fees, but very few directors were able to provide details of the specific amount saved. If they became eligible for exemption, 56% of companies intended to take up exemption and 42% would not (2% did not respond).<sup>7</sup> There are some reservations on basing an analysis on predicted behaviour, but in this case it can be justified, as the directors' forecasts are almost identical to their decisions in the 2002 accounts.

### *3.4 Variables in the analysis*

Table 2 summarises the variables in the analysis. Data relating to the size variables was obtained from the companies' 2002 accounts. All other data was collected via the questionnaire survey in 2003 (non-responses were excluded from the analysis).

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<sup>7</sup> The vast majority of companies (79%) that were likely to be eligible for the first time predicted they would have a voluntary audit.



**Table 2 Description of variables**

<i>Label</i>	<i>Description</i>
VOLAUDIT	Whether the company would have a voluntary audit (1, 0)
TOVER	Size of company as measured by turnover (£m)
ASSETS	Size of company as measured by balance sheet total (£m)
EMPLS	Size of company as measured by number of employees
CHECK	Extent of agreement that the audit provides a check on accounting records and systems (1 = disagree, 5 = agree)
QUALITY	Extent of agreement that audit improves the quality of the financial information (1 = disagree, 5 = agree)
CREDITSC	Extent of agreement that audit has a positive effect on the company's credit rating score (1 = disagree, 5 = agree)
FAMILY	Whether the company is wholly family-owned (1, 0)
EXOWNERS	Whether the company has shareholders without access to internal financial information (1, 0)
BANK	Whether the statutory accounts are given to the bank and other providers of finance (1, 0)

Table 3 provides descriptive statistics where appropriate.<sup>8</sup>

**Table 3 Descriptive statistics**

<i>Label</i>	<i>Data</i>	<i>N</i>	<i>Min</i>	<i>Max</i>	<i>Mean</i>	<i>SD</i>
VOLAUDIT	Nominal	772	0	1	N/A	N/A
TOVER	Ratio	790	.054	4738.27	691.07	1119.45
ASSETS	Ratio	790	.004	2391.79	386.22	584.18
EMPLS	Ratio	790	1	50	8.13	10.479
CHECK	Ordinal	697	1	5	4.05	1.19
QUALITY	Ordinal	687	1	5	3.35	1.38
CREDITSC	Ordinal	681	1	5	3.55	1.29
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

- VOLAUDIT (question 14 in the questionnaire) is the dependent variable. It consists of two groups: companies that would have a voluntary audit (coded 1) and companies that would not have the accounts audited if exempt (coded 0).
- TOVER measures turnover, ASSETS measures balance sheet total and EMPLS measures the average number of employees disclosed in the 2002 statutory accounts. Data for TOVER and ASSETS were converted from £k to £m to aid the interpretation of the results.
- CHECK, QUALITY and CREDITSC represent management factors and capture whether the directors perceive the audit as providing a check on accounting records and systems, improving the quality of the financial information or having a positive effect on the company's credit rating score (questions 15a, 15c and 15h respectively).

<sup>8</sup> Strictly speaking, the mean cannot be calculated for ordinal data, since the numeric scale represents ranked nominal categories. It is given here as an indication of central tendency. The multivariate statistics were based on ranked data.

They are coded on a scale of 1 to 5, where 1 is disagree and 5 is agree with the statement.

- FAMILY is an agency factor and captures family ownership (question 1). It is a dummy variable that is coded 1 if the company is wholly family-owned and 0 otherwise. Previous research (Collis, 2003b; Collis *et al.*, 2004) shows it is negatively associated with the demand for voluntary audit.
- EXOWNERS is an agency factor that captures external ownership (question 3). It is a dummy variable that is coded 1 if there are shareholders without access to internal financial information and 0 otherwise.
- BANK is an agency factor and captures whether the statutory accounts are given to the bank and other providers of finance (question 18). It is a dummy variable that is coded 1 if the company gives the statutory accounts to the bank and lenders and 0 otherwise.

### 3.5 Multicollinearity

The data was examined for collinearity by examining a correlation matrix of the ordinal and ratio variables.<sup>9</sup> Although none of the correlation coefficients shown in Table 4 indicate very high correlation ( $\geq 0.9$ ), the results for the size variables (0.7 - 0.8) give some cause for concern, since high levels of correlation 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 4 Correlation matrix of ratio and ordinal independent variables**

	<i>TOVER</i>	<i>ASSETS</i>	<i>EMPS</i>	<i>CHECK</i>	<i>QUALITY</i>	<i>CREDITSC</i>
<i>TOVER</i>	1.000					
<i>ASSETS</i>	0.802**	1.000				
<i>EMPS</i>	0.766**	0.718**	1.000			
<i>CHECK</i>	0.100**	0.096*	0.109**	1.000		
<i>QUALITY</i>	0.105**	0.072*	0.079*	0.626**	1.000	
<i>CREDITSC</i>	0.192**	0.161**	0.178**	0.504**	0.532**	1.000

Notes: N = 671 – 790 (cases excluded pairwise)  
 See Table 2 for a description of the variables  
 \*\* Correlation is significant at the .01 level (2-tailed)  
 \* Correlation is significant at the .05 level (2-tailed)

## 4. Results and discussion

### 4.1 Voluntary audit and size factors

Replicating Collis *et al.*, (2004), the logistic regression analysis shown in Table 5 examines a series of size models for TOVER, ASSETS and EMPS as audit predictors. It can be seen from Panels A - C that when each variable is regressed separately, the result is significant ( $p < 0.01$ ). However, when all three are entered together (Panel D) EMPS is not significant ( $p > 0.05$ ). The results for both TOVER and ASSETS are significant ( $p < 0.01$ ), but TOVER has a higher Wald statistic, which suggests it is the more powerful

<sup>9</sup> FAMILY, EXOWNERS and BANK are not suitable for this procedure as they are measured on a nominal scale.

predictor, and a lower probability statistic, which gives more confidence that the result is not due to error.

**Table 5**  
**Logistic regression model of demand for a voluntary audit: size factors**

<i>Variable</i>	<i>B</i>	<i>SE</i>	<i>Wald</i>	<i>p</i>	<i>Exp(B)</i>
<i>Panel A</i>					
TOVER	.834	.097	73.909	.000	2.302
Constant	-.790	.092	74.183	.000	.454
<i>Panel B</i>					
ASSETS	1.380	.158	75.940	.000	3.976
Constant	-.780	.092	71.151	.000	.459
<i>Panel C</i>					
EMPLS	.077	.009	66.814	.000	1.080
Constant	-.863	.100	74.415	.000	.422
<i>Panel D</i>					
TOVER	.449	.153	8.606	.003	1.566
ASSETS	.479	.236	4.119	.042	1.615
EMPLS	.023	.013	2.884	.089	1.023
Constant	-.902	.102	78.716	.000	.406

Notes: N = 772

Model summaries:

Panel A Chi-square 112.648, df 1,  $p < .01$ , -2 Log likelihood 943.518, Nagelkerke  $R^2$  .182

Panel B Chi-square 99.348, df 1,  $p < .01$ , -2 Log likelihood 956.818, Nagelkerke  $R^2$  .162

Panel C Chi-square 91.756, df 1,  $p < .01$ , -2 Log likelihood 964.410, Nagelkerke  $R^2$  .150

Panel D Chi-square 121.628, df 3,  $p < .01$ , -2 Log likelihood 934.538, Nagelkerke  $R^2$  .196

#### 4.2 Sufficiency of size as surrogate for qualitative factors

Factor analysis was then used to identify the principal components among the qualitative predictors of voluntary audit identified by Collis (2003). Table 6 shows the rotated component matrix, where the varimax rotation converged in three iterations.

**Table 6**  
**Factor analysis of qualitative predictors of voluntary audit**

<i>Variable</i>	<i>Component 1</i> <i>Management benefits</i> <i>(34% of variance)</i>	<i>Component 2</i> <i>Agency benefits</i> <i>(21% of variance)</i>
CHECK	<b>.831</b>	.021
QUALITY	<b>.858</b>	.022
CREDITSC	<b>.785</b>	.043
FAMILY	.039	<b>-.733</b>
EXOWNERS	-.032	<b>.653</b>
BANK	.137	<b>.560</b>

The high factor scores for the directors' beliefs about the value of the audit as a check on accounting records and systems, improving the quality of the financial information and having a positive effect on the company's credit rating score form Component 1. This has

been intuitively labelled as ‘management benefits’ of the audit. Component 2 groups together the existence on non-family shareholders, external shareholders and giving the accounts to the bank and other providers of finance. This has been intuitively labelled as ‘agency benefits’ of the audit. To examine the relationship between the principal components and the size variables, the factor scores for each were regressed against TOVER and ASSETS. Table 7 shows the results.

**Table 7**  
**Regression analysis of management/agency benefits and size variables**

<i>Variable</i>	<i>B</i>	<i>SE</i>	<i>Beta</i>	<i>t</i>	<i>p</i>
<i>C1 Management benefits</i>					
TOVER	.139	.060	.163	2.336	.020
ASSETS	-.035	.113	-.021	-.307	.759
Constant	-.090	.049		-1.840	.066
<i>C2 Agency benefits</i>					
TOVER	.149	.056	.174	2.669	.008
ASSETS	.371	.105	.230	3.524	.000
Constant	-.271	.046		-5.931	.000

Notes: N = 790  
C1 Adjusted R<sup>2</sup> .018  
C2 Adjusted R<sup>2</sup> .145

Panel C1 shows a significant result for TOVER ( $p < 0.05$ ), and indicates a positive association with management benefits of the audit. However, the result for ASSETS is not significant. This provides evidence to support the proposition that turnover is a surrogate for management benefits. Panel C2 shows a significant result for both TOVER and ASSETS, but ASSETS has the stronger association with agency benefits.

Table 8 shows the final model of the demand for voluntary audit, which uses TOVER, ASSETS as well as the specific management variables (CHECK, QUALITY and CREDITSC) and the agency variables (FAMILY, EXOWNERS and BANK).

**Table 8**  
**Logistic regression model of demand for a voluntary audit: all factors**

<i>Variable</i>	<i>B</i>	<i>SE</i>	<i>Wald</i>	<i>p</i>	<i>Exp(B)</i>
TOVER	0.368	0.170	4.700	0.030	1.444
ASSETS	0.439	0.287	2.332	0.127	1.551
CHECK	0.293	0.117	6.239	0.012	1.340
QUALITY	0.450	0.096	21.756	0.000	1.568
CREDITSC	0.257	0.094	7.485	0.006	1.293
FAMILY	-0.777	0.211	13.565	0.000	0.460
EXOWNERS	0.587	0.267	4.826	0.028	1.799
BANK	0.429	0.216	3.944	0.047	1.536
Constant	-4.045	0.516	61.491	0.000	0.018

Notes: N = 602  
Model summary:  
Chi-square 209.273, df 8,  $p < 0.01$ , -2 Log likelihood 623.574, Nagelkerke R<sup>2</sup> 0.392

Looking first at the results for the two size variables, it can be seen that they are not significant for ASSETS ( $p > 0.05$ ), which suggests that only TOVER is adding additional information to the model. The results for the remaining variables are significant ( $p < 0.05$ ) and the factor coefficient (B) for FAMILY has the expected negative sign. The higher values of the Wald statistics and the lower probability statistics for QUALITY and FAMILY compared to the other variables demonstrate that these are the most influential predictors. Examining the goodness of fit, it can be seen from the  $R^2$  that this model explains 39% of the demand for the audit, which is an improvement over the models shown in Table 7.

## **5. Conclusions**

Harmonisation with EU size thresholds means that the enlarged category of small companies in the UK contains two subgroups with differing needs. This is demonstrated by the significant proportion of directors whose audit decisions indicate that the benefits outweigh the costs. This study provides evidence on the adequacy of different size measures as surrogates for the costs versus benefits of voluntary audit in small companies filing full accounts.

A general interpretation of the results is that directors who are willing to bear the cost of the audit do so because of their beliefs about the specific 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 analysis in this paper demonstrates that turnover (but not balance sheet total) predicts whether the directors consider management benefits of audit outweigh the cost. On the other hand, balance sheet total is stronger than turnover for predicting whether agency benefits of audit outweigh the cost. However, when the specific qualitative factors that represent the management and agency benefits of audit are entered together with the size variables in the model, only turnover is significant. This seems to confirm that turnover represents the relative cost burden in the model.

There is no theory of size in the small company literature on financial reporting, and this paper develops a framework based on empirical evidence. Although turnover is a factor, it is not a full and sufficient surrogate for the qualitative characteristics identified by previous research. This needs to be taken into consideration during the development of little GAAP at national and international levels.

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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                  |  | (1) |
| Partly family-owned                  |  | (2) |
| None of the shareholders are related |  | (0) |

**3. How many shareholders (owners) does the company have?**

- |  |  |
|--|--|
| (a) Total number of shareholders   |  |
| <i>Breakdown:</i>  |  |
| (b) Number of shareholders with access to internal financial information           |  |
| (c) Number of shareholders <u>without</u> 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                    |  | (0) |
| 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 |  | (1) |
| No, stay at £1m        |  | (0) |
| 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 |  | (1) |
| Yes, the accounts would be audited voluntarily    |  | (2) |
| No  |  | (0) |

*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 <i>(please state)</i>					

.....

.....



**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 not shareholders
- (d) Employees who are not 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)*


(1)  
(2)  
(3)

.....

**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
