

# The Impact of Auditor Reputation on the Pricing of Initial Public Offerings

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## I. Introduction

In recent years, much academic interest has been focused on the role of third-party professionals to certify the value of new shares issued by firms going public in the stock markets that are characterised by information asymmetry between inside and outside investors<sup>1)</sup>. In particular, when private companies are going public through initial public offerings in the regulated markets, they have to employ professional advisers such as underwriters and reporting accountants. The employed professionals play an important role in the process of going public by analysing and helping the issuing firms in many respects. Thus the reputation of professional advisers which take part in issuing new shares might implicitly support assumptions about the future cash flows of the issuing firms. The role of this third-party certification could be recognised by providing more

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1) Most of studies on the third-party specialists in the new issues market are based on the certification hypothesis of Booth and Smith (1986).

accurate information to market participants and it develops as professional endorsement is seen as worthwhile in terms of the quality of companies introduced to the market.

In this article we will examine whether the reputation of accounting firms employed in the process of a firm going public could certify that the offering price of new issues reflects all available and relevant corporate information. Further we investigate whether the reputation of auditors would have an impact on the aftermarket performance of initial public offerings.

This paper is organised as follows. In Section 2, we will review models and empirical findings on the role of accounting firms in the new issues market. Section 3 provides data description and methodology. Empirical findings on the role of auditors in the IPOs market will be presented in Section 4. And Section 5 concludes this article.

## II. Review of the Role of Auditors in the IPOs Market

In fact, even though the role of the reporting accountant is also important, there are few studies analysing their role compared to that of the underwriter. In recent times some authors<sup>2)</sup> have begun to investigate the role of reporting accountant /auditor in the new issues market.

### 2.1 Models on the Role of Auditors in the IPOs Market

The auditor plays an important role in the process of going public of privately owned companies. The reporting accountant prepares statements about the firm's current financial status and its future prospects, which are fundamental documents on which the underwriter will decide the offer price. Further the audited report of accountants is an important element in the prospectus in providing financial information to the market. It is therefore recognised that the choice of auditor may have an impact on the pricing of new issues and their subsequent price in the secondary market. This argument is first evidenced by the finding of Carpenter and Strawser (1971) that the companies switch to more prestigious auditors when the firms plan to sell Their shares for the first time. Through the choice of more prestigious auditors, the issuers believe that their shares could be more accurately valued and this fact will be conveyed to the market. They wish their issues to obtain the most positive stock market reaction.

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2) See Balvers, McDonald and Miller (1988), Beatty (1989a and 1989b), Datar, Feltham and Hughes (1991), Feltham, Hughes and Simunic (1991), and Firth and Smith (1992).

Since the study of Booth and Smith (1986) on the role of the third party in the new issues market, as shown in Table 1, some authors developed the theoretical models on the role of the accounting firms in the IPOs market.

Table 1. Theoretical Models on the Role of Auditors in the IPOs Market

Study	Signal Variable	Main Conclusions
Booth & Smith (1986)	reputation of underwriter	Reputation of underwriter certifies the issue price is consistent with inside information and the firm value is an increasing function of underwriter prestige.
Titman & Trueman (1986)	reputation of underwriter and auditor	<ul style="list-style-type: none"> <li>· Firm value is an increasing function of auditor and investment bank quality.</li> <li>· Audit quality is a decreasing function of the risk of the issuing firm.</li> </ul>
Balvers, McDonald & Miller(1988)	reputation of auditor and underwriter	The relation between underwriter reputation and auditor reputation is positive and both reputations reduce underpricing.
Datar, Feltham & Hughes (1991)	choice of an auditor and audit quality	<ul style="list-style-type: none"> <li>· The selection of auditor and the audited reports provide information about firm value.</li> <li>· The value of audited reports is an increasing function of the risk of expected cash flows of firms.</li> </ul>

In fact, the theoretical models on the role of auditor in new issues market have been developed by exploring the effect of auditor prestige or the joint effect of auditor reputation and fraction of ownership retained by entrepreneurs on the value of firm.

Titman and Trueman (1986) firstly developed a theoretical model that the auditor quality<sup>3)</sup> can play a role as a signal of value of initial public offerings. Their model is based on the idea that the auditor can provide additional information about the firm's future value to investors and therefore the owners of the issuing firms would have an incentive to use a higher quality auditor to validate the accuracy of disclosed information. In their model, entrepreneurs with favourable information about future cash flow will choose higher quality auditing firms than the entrepreneurs of doubtful companies with unfavourable information. Even though employing a higher quality auditor entails higher auditing fees, firms with good private information hire a good quality auditing firm in order to convey effectively favourable information to

3) In their model auditor quality is defined as the precision of the information the auditor provided to investors. In other words, the information supplied by a higher-quality auditing firm allows investors to make a more accurate estimate of the firm's future cash flows.

investors. On the other hand, firms with unfavourable information will not employ a prestige auditor because this will precisely reveal their less favourable information to investors. This behaviour of the entrepreneur in selection of the auditing firm will be picked up by investors in the market.

The main prediction of this model is that the higher the quality of auditor, the greater will be investors' assessment of the future value of firm and so the higher will be the price of the initial public offerings. The value of firm is an increasing function of the quality of auditor. This function can be expressed as follows:

$$v(\theta, q^*) = E(\mu | \theta, q^*)$$

where,  $v$  = the firm's value

$\theta$  = a set of information provided by the auditor

$q^*$  = the entrepreneur's optimal choice of auditor

$\mu$  = the firm's end of period cash flow.

In this model the other notable result is that the fraction of shareholdings retained by entrepreneurs is a decreasing function of the quality of auditor. On the other hand, their model could be applied separately to either the choice of auditor or underwriter, but does not take into consideration the interaction of both auditor and underwriter. The main prediction of this model is supported by the empirical evidence provided by Balvers, McDonald and Miller (1988), Beatty (1989a and 1989b), Firth and Smith (1992), Simunic and Stein (1987).

Balvers, McDonald and Miller (1988) developed a model that incorporates the relation of underwriter and auditor with valuation of new issues on the basis of the arguments of both Rock (1986) and Beatty and Ritter (1986) and then tested empirically the implications of their model. This model suggests that the high reputation underwriters will more often employ more prestigious auditing firms, and the quality of both could reduce the underpricing of unseasoned new issues. This model also implies that both underwriter and auditor quality negatively affect underpricing. That is, as either one of both reputation variables increases, the effect of the other variable diminishes.

Of the models examined above, none considers simultaneously the fraction of retained ownership and reputation of professional advisers in valuation of new issues. However Datar, Feltham and Hughes (1991) developed a model that combines the selection of the auditor and percentage of ownership retained by the entrepreneur in the new issues market. The model assumes that the audited reports do not create information about the

firm's future value additional to the entrepreneur's existing projections. The primary role of an auditor is to attest the report proposed by the entrepreneur and an audited report partially discriminates in the sense that it reduces the set of the firm's expected values to which investors assign a positive probability, but the audited report does not alter the mean of the firm's future value. In this model, through employing an auditor the entrepreneur can reduce his necessary ownership while still signalling the future value of firm. The most empirically testable implication is that the riskier firm would employ the higher-quality auditor.

To sum up, this model predicts that the value of a mandated audit is an increasing function of audit reputation and the firm-specific risk, and increases with the entrepreneur's expected cash flows. This prediction is in contrast with the prediction of Titman and Trueman(1986). An empirical investigation of Feltham, Hughes and Simunic (1991) supports the prediction of this model.

## 2.2 The Existing Empirical Studies

The empirical findings on the relationship between auditor reputation and the value of an issuing firm are summarised in Table 2. Since Carpenter and Strawser (1971) found that firms originally employing local or regional audit firms often replace their existing auditors with national or prestigious auditing firms at the time of going public.

Following this approach, Simunic & Stein (1987) analysed in depth the role of accountancy firms in the new issues market, using 469 US IPOs during 1981. They found a positive relation between firm value and auditor reputation. In their study the negative association between risk of the expected cash flows and auditor prestige was also revealed. In particular, the empirical results of Balvers, McDonald and Miller (1988) imply that the choice of auditor is affected by the underwriter and the impact of the reputation of both underwriter and auditor on the underpricing is reduced.

In recent articles, Beatty (1989a and 1989b) focused on the role of an auditor in the initial public offering market. In his two empirical researches he found a negative relationship between the reputation of auditors of initial public offerings of equities and the initial returns. This evidence is consistent with the prediction of Titman and Trueman (1986). Furthermore, he showed that larger and less risky issuing companies

Table 2. Summary of Previous Empirical Studies on the Role of Auditors

Study	Sample		Methodology	Results
	Period	Size		
Carpenter & Strawser (1971)	1969-70	165	analysis of questionnaire about change of auditor	Firms employing local and regional audit firms often replace at the time of going public.
Simunic & Stein (1987)	1981	469	analysis by logit model	<ul style="list-style-type: none"> <li>· positive relation between firm value and auditor reputation.</li> <li>· negative relation between risk and auditor prestige</li> </ul>
Balvers, McDonald & Miller (1988)	1981-85	1,182	<ul style="list-style-type: none"> <li>· difference of underpricing between Big Eight and Non-big eight</li> <li>· OLS</li> </ul>	<ul style="list-style-type: none"> <li>· more prestigious underwriters tend to employ high quality auditor.</li> <li>· the impact of reputation of both auditor and investment bank on underpricing is decreasing</li> </ul>
Beatty (1989a)	1977-82	1,026	OLS	negative relation between reputation of auditor and initial return
Beatty (1989b)	1975-84	2,215	OLS, 2SLS	
Feltham, Hughes & Simunic (1991)	1981	469	regression analysis	positive association between audit quality and firm-specific risk
Holland & Horton (1991)	1986-89	230	multivariate regression	negative relation between auditor reputation and underpricing in USM of UK
Menon & Williams (1991)	1985-86	1,320	logistic regression analysis	firms with prestigious underwriters more likely change from their local auditors to more credible auditors
Firth and Smith (1992)	1983-86	103	MLE(logit model)	<ul style="list-style-type: none"> <li>· negative relation between auditor quality and inside holding.</li> <li>· positive relation between auditor reputation and risk</li> </ul>
Keasy & McGuinness (1992)	1984-86	190	OLS	positive relation between firm value and quality of reporting accountants
Keasy & Short (1992)	1984-88	356	OLS	no significant relation between underpricing and the reputation of reporting accountants



employed Big Eight auditing firms in order to reduce the discount of offer price. In contrast with this evidence, Felthman, Hughes and Simunic (1991) found that higher risky firms would tend to select good quality auditors in order to get rid of the investors' pessimistic opinions of these risky firms.

Firth and Smith (1992) investigated audit quality differentiation for 103 IPOs in New Zealand new issues market between 1983 and 1986. Firms with little or no trading history tended to use a Big Eight auditing firm to add credibility. This finding is dissimilar to the results of two studies by Beatty (1989a and 1989b) but is consistent with the model of Datar, Feltham and Hughes (1991) that predicts a positive relation between auditor reputation and the entrepreneur's risk.

A study by Menon and Williams (1991) presents auditor credibility as an important factor for the issuing firm and the investment banker at the time of going public because of information asymmetry between investors and the issuing firms. Using a sample of 1,320 firms going public between 1985 and 1986 in the US, they found that the issuing companies employing local auditors changed their existing auditors for more prestigious prior to initial public offerings. This finding confirms the result of Carpenter and Strawser (1971).

In the UK Holland & Horton (1991), using 230 IPOs on USM during 1986-89, found that there is a negative relation between auditor reputation and underpricing. However, in the study of Keasy & Short (1992) using 356 IPOs between 1984 and 1988, an association between underpricing and the reputation of reporting accountants is revealed to be insignificant. On the other hand Keasy & McGuinness (1992), using 190 unseasoned new issues of 1984-86, revealed that firm value is positively related to the quality of reporting accountants.

### III. Data and Methodology

#### 3.1 The Data

An empirical investigation on the role of the accounting firm is conducted using IPOs of the 512 firms going public in the London Stock Exchange between 1985 and 1990. During that period a total of 1,526 new firms were admitted to the main market (Official

List), the USM and the third market of the London Stock Exchange. Our sample was restricted to companies which were listed on the main market and USM by an offer for sale or placing. The companies which employed the methods of introduction, offer for sale by tender and subscription were excluded because the first one did not raise any new funds and the remaining two were rarely used. We excluded initial public offerings of companies which involved a joint offer and placing and only considered ordinary share flotations for UK trading companies (excluding some financial companies such as investment trust).

The list of initial public offerings of sample companies was identified from 'Companies Newly Admitted to Listing' of the Quality of Markets Quarterly (or the Stock Exchange Quarterly) of the International Stock Exchange (London) and the column of "New Issues" in the Investors Chronicle. Basic data such as issuing date, method of issue, offer price, market value, identification of industry (by SE classification) and proceeds were also collected from the above two sources. More detailed data including sponsors, brokers, reporting accountants, legal firms employed, the fraction of share ownership retained by entrepreneurs and directors, the age of firms and turnover were collected from EXTEL CARDS and New Issues Statistics of KPMG Peat Marwick McLintock. Daily share prices of sample companies were collected from DATASTREAM. FTA All-Share Index data used as an index for adjusting market movement were also collected from DATASTREAM.

### 3.2 Methodology

In this section we will discuss methodology for the empirical analysis. First, the approach used to estimate the underpricing of IPOs will be discussed. Second, we will examine the measurement of reputation of professional advisers involved in issuing new shares. Finally, the test models for empirical investigation will be formed.

#### 3.2.1 Computation of Excess Returns

In the first place, the underpricing of initial public offerings was estimated by computing the post-issue abnormal returns<sup>4)</sup>. Using the market adjusted returns approach, the ex post abnormal returns of individual new issues, AR<sub>it</sub>, were estimated in

4) The abnormal return for a given security in any time period  $t$  is defined as the difference between its realised ex post return and that which is predicted under the assumed return-generating process.



the following way:

$$AR_{it} = R_{it} - R_{mt} \quad (1)$$

where,  $R_{it}$  is the realised rate of return of new issues of individual companies at time  $t$  and  $R_{mt}$  is the realised rate of return of market at time  $t$ . We used FTA-All Share Index as the proxy for the market index.

The market-adjusted returns of individual firms calculated by equation (1) are averaged across firms to compute average abnormal returns(AARt) (see equation(2)). Cumulative abnormal returns (CARit) for each issuing firm and cumulative average abnormal returns (CAARt) across firms over time are calculated by equations (3) and (4), respectively. This market adjusted model assumes that the beta of the portfolio of sample firms is equal to that of the market portfolio. AARt and CAARt will be used to examine the underpricing of unseasoned new issues and to analyse the aftermarket performance of initial public offerings over time.

$$AAR_t = \frac{1}{n} \sum_{i=1}^n AR_{it} \quad (2)$$

$$CAR_{it} = \sum_{t=1}^T AR_{it} \quad (3)$$

$$CAAR_t = \frac{1}{n} \sum_{i=1}^n CAR_{it} = \frac{1}{n} \sum_{i=1}^n \sum_{t=1}^T AR_{it} \quad (4)$$

### 3.2.2 Measurement of the Reputation of Auditors

It is argued that the quality of audit<sup>5)</sup> can be measured by auditing firm size as measured by the number of clients (DeAngelo (1981),p.186). Based on this argument, in most of US studies of the role of auditor in the new issues market, auditing firms were generally divided into Big Eight and Non-Big Eight (see Beatty (1989a and 1989b), Balvers, McDonald and Miller (1988)).

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5) Menon and Williams (1991) classifies the auditing firms in three levels: Big Eight, national and local, however his empirical analysis is based on the dichotomy classification of Big Eight and Non-Big Eight. Further discussion of audit quality is made in Knapp (1991).

In the UK, the proxy of reputation of accountancy firms could be measured on the basis of their fee income published in the Accountancy journal, the league table of accountancy firms of the Financial Times and KPMG's New Issues Statistics. These first two sources provide the ranking of the top ten or twenty large accountancy firms by the size of fee income. According to KPMG, the number of IPOs by accountancy firm is presented and the market share of the top ranked accountancy firms is concentrated. The ranking in this source is similar to the order of rank in the first two sources. In a recent study on the relation between the reputation of accounting firm and pricing of new issues in the UK IPOs market, Holland and Horton (1991) classify auditors into three tiers: the Big Nine, medium sized practice, and other ranked firms group. And Keasy and McGuinness (1992) classify 11 accounting firms into the prestigious set, instead of the classification of Big Eight and Non-Big Eight.

In our study, accounting firms are classified into four groups according to the size of fee income (see Appendix). The first group includes eight large accounting firms, the second group next seven firms, the third group next five firms and fourth group contains the remainder. In investigating the difference in market performance and market value by the accounting firm, three kinds of definition will be employed. Definition 1 classifies only the first group accounting firms as prestigious and the reputation dummy is coded 1 if firms going public employ one of these 8 auditors, 0 otherwise. Definition 2 classifies 15 auditors from the first and second groups as the prestigious auditors. Definition 3 adds third group auditors to the prestigious group and their number reaches 22. And these dummies were generated to reflect inclusion of the Big Eight and successively the next two groups.

### 3.3 ·Hypotheses

The impact of reporting accountants on the valuation of new issues could be explored by examining the relationship between firm value and quality of reporting accountants. Titman and Trueman (1986) also predict that the value of firm is positively related to the reputation of reporting accountants.

In particular, firms which are associated with non-prestigious auditing firms might tend to change their existing auditors when they plan to go public. When they replace their auditor, they would select a well reputed accounting firm as their

reporting accountants.

**Hypothesis I:** The companies employing non-prestigious accountancy firms would replace their auditors with more prestigious accountancy firms on going public.

**Hypothesis II:** The market value of firms going public is positively related to the reputation of reporting accountants.

### 3.4 Test Model

Hypothesis 2 on the positive association between firm value and the reputation of reporting accountants will be tested by estimating the following regression model. It is expected that the coefficient  $b_1$  will be positive and significant at conventional confidence level.

$$MV_i = b_0 + b_1 \text{REPAC}_j + b_k \sum \text{other variables}_k + \varepsilon_i \quad (5)$$

where, REPAC is the dummy variable of the accountancy firm reputation.

## IV. Empirical Results

### 4.1 The Role of Accounting Firm in the UK IPOs Market

Before going to the discussion of empirical findings, we will briefly review the role of auditors in the UK new issues market. Because the process of initial public offerings is professional and so complicated, firms which want to go public through issuing new stocks should firstly seek professional advisers to help their flotations. In the UK the sponsoring firms, reporting accountants, a broker and solicitors are mainly involved in flotations. Professional advisers might play a crucial role in a successful flotation.

In the UK two accounting firms are usually involved in a stage of the flotation both to advise on any desirable reorganisation of client business and to prepare and

audit the financial reports included in the offer document. The issuing company will retain a firm of auditors, possibly its existing auditors<sup>6)</sup>, and the sponsor will also appoint new accountants to act as auditors and reporting accountants. One of the most important roles of reporting accountants is to prepare the accountants' report for the prospectus to provide financial information for the potential investors and for securities regulators. In addition to the required report, accountants may also prepare a confidential long-form report for the company directors and the issuing house, which not only covers the financial status of the company but also analyses its business, management and organisation. They may also be required to report on the accounting policies and calculations used in preparing of profit forecasts and to check the working capital requirements and indebtedness of the issuing firm. As a potential signal in the IPO market, the reputation of the accounting firms involved in flotations is of interest. High reputation could both provide a guarantee of the quality of information reported in the prospectus and also minimise the level of discount required to counteract uncertainty in accounting numbers.

Table 3 reports the number of flotations by reporting accountant during the period from January 1980 to December 1990. Shares of 10 major accounting firms in both the main market and USM are 85% and 71% respectively. This implies that auditing market is dominated by some big accounting firms.

#### 4.2 Difference Test of Mean of Descriptive Variables by Definition of Accounting Firm Reputation

In order to find the difference in auditing quality, we will first investigate the difference of mean in size-related variables and market performance measure related variables by the definition of reputation of reporting accountants (see Table 4). This approach could be helpful in exploring the impact of the reporting accountant's reputation on the valuation of initial public offerings of equity.

According to each definition of the reporting accountant's reputation, the difference of means of variables about firm size is pronounced and statistically significant at

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6) If the existing auditor firm has good experience in playing the role of a reporting accountant, the sponsor firm will conduct the issuing project with the existing auditor. Otherwise the sponsor firm will appoint another accounting firm as reporting accountant.

Table 3. Number of Floated Companies by Reporting Accountant (1.1.1980–31.12.1990)

Official List		USM	
Reporting Accountants	No. of Companies	Reporting Accountants	No. of Companies
KPMG	128	KPMG	155
Coopers & Lybrand Deloitte	113	Coopers & Lybrand Deloitte	118
Ernst & Young	76	Ernst & Young	81
Touche Ross	70	Touche Ross	79
Price Waterhouse	60	Arthur Andersen	55
BDO Binder Hamlyn	30	Price Waterhouse	55
Arthur Andersen	27	BDO Binder Hamlyn	44
Robson Rhodes	15	Stoy Hayward	39
Grant Thornton	11	Grant Thornton	27
Stoy Hayward	7	Robson Rhodes	16
Sub-total(A)	537	Sub-total(A)	669
Others	94	Others	271
Total(B)	631	Total(B)	940
A/B	85%	A/B	71%

Source: KPMG, New Issues Statistics, January 1991.

conventional level. But the variables concerning aftermarket performance show a little difference but they are not statistically significant. Although the difference in the average of market performance variables and standard deviation between more reputable accounting firms and less reputable accounting firms is not certain, IPOs of the firms going public by reputable auditing firms show less degree of underpricing. These findings suggest that the IPOs of firms which employed more prestigious reporting accountants show less price run-up in the secondary market and comparatively less uncertainty. Through employing good quality accounting firms, the firms going public could reduce the investor's uncertainty about the content of the financial statements and would improve the quality of information provided to the IPOs market participants. Further, the choice of reporting accountants from reputable accountancy firms could also be a positive signal on the future cash flows of firms going public.

#### 4.3 The Tendency of Change of Reporting Accountants

In the US IPOs market some authors found that privately-owned companies would tend to change their less prestigious existing auditors for auditors with a higher

reputation at the time of going public. Firstly, looking at the distribution of sample companies by auditors employed, of 512 companies, 54.1% are audited by one of the Big

Table 4. Comparison of Mean of Descriptive Variables by the Definition of Reporting Accountants Prestige

A. Test of Difference by Definition 1 (Prestige=350 ; Non-Prestige=162)				
Variable	Mean		t-Value	2-Tail Prob.
	Prestige	Non-prestige		
Capitalization (£ mil.)	35.47 (143.87)	15.38 (14.72)	2.58	.010
Proceeds (£ mil.)	11.53 (58.99)	4.56 (5.05)	2.19	.029
Sales (£ mil.)	31.85 (89.89)	18.80 (33.30)	2.33	.020
AAR1	.120 (.154)	.149 (.203)	-1.60	.110
AAR5	.126 (.176)	.165 (.229)	-1.91	.057
AAR25	.123 (.211)	.153 (.261)	-1.27	.205
Aftermarket Standard Deviation	.035 (.028)	.041 (.037)	-1.69	.093
CAAR by Year 2	-.049 (.685)	-.091 (.693)	.64	.525
B. Test of Difference by Definition 2 (Prestige=449; Non-prestige=63)				
Capitalization (£ mil.)	31.64 (127.40)	11.06 (8.12)	3.37	.001
Proceeds (£ mil.)	10.20 (52.18)	3.04 (2.51)	2.88	.004
Sales (£ mil.)	29.97 (80.92)	11.27 (30.09)	3.38	.001
AAR1	.124 (.166)	.162 (.204)	-1.40	.166
AAR5	.133 (.192)	.174 (.210)	-1.56	.120
AAR25	.125 (.222)	.187 (.264)	-1.77	.081
Aftermarket Standard Deviation	.036 (.030)	.043 (.037)	-1.41	.163
C. Test of Difference by Definition 3 (Prestige=463; Non-prestige=49)				
Capitalization (£ mil.)	31.11 (125.49)	10.16 (7.68)	3.53	.000
Proceeds (£ mil.)	10.02 (51.40)	2.70 (2.26)	3.03	.003
Sales (£ mil.)	29.32 (79.81)	12.21 (33.95)	2.73	.007
AAR1	.123 (.165)	.186 (.219)	-1.96	.056
AAR5	.132 (.191)	.202 (.222)	-2.12	.039
AAR25	.124 (.220)	.215 (.282)	2.21	.031
Aftermarket Standard Deviation	.036 (.030)	.047 (.039)	-2.09	.042

Standard deviations are in parentheses.

Prestige Definition

1. Prestigious accountants defined as first group(n=8).
2. Prestigious accountants defined as first group and second group(n=15).
3. Prestigious accountants defined as first group, second group and third group(n=22).



Eight, 19.5% by second tier accountants, 3.5% by third group firms and 22.9% by other group firms. Seeing the distribution of sample IPOs by the reputation of reporting accountants, of 512 sample IPOs, 350 firms(68.4%) employed one of the Big Eight accounting firms for going public, 99 firms(19.3%) chose their reporting accountants from the second tier, 14 firms(2.7%) selected their accountants from third tier firms and the remaining 49 firms(9.6%) are audited by accounting firms of fourth group (see Table 5).

The hypothesis I on the tendency of change of auditor is established to explore this tendency in UK IPOs market. Table 5 shows the frequency and direction of reporting accountants' change at the time of going public. Of our 512 sample IPOs, none of firms (n=277) employing their auditors from Big Eight accountancy firms changed their existing auditors. On the other hand, of those firms (n=117) employing auditors who were not ranked in the league table of fee income of Accountancy journal, 58% (68 firms) of them replaced their existing auditors with more prestigious accountancy firms<sup>7)</sup>. 85% of the firms which changed their existing auditors chose their reporting accountants from one of the Big Eight accountancy firms. Of 100 firms that employed second tier firms as their auditors, 10 companies replaced their existing auditors with Big Eight firms. Of 18 firms employing third tier accountancy firms as their auditors, 5 firms (28%) changed. Our evidence on the change of auditors confirms Carpenter and Strawser's (1971) and Menon and Williams' (1991) findings that IPOs trigger a change to a more prestigious auditor.

Table 5. Tendency and Direction of Reporting Accountant Change by Reputation Group

Auditor (No. of IPO sample)	Reporting Accountant				
	No. of Firms Changing Accountant (%)	First Group (%)	Second Group (%)	Third Group (%)	Others (%)
First Group (277)	0(0)	0(0)	0(0)	0(0)	0(0)
Second Group(100)	10(100)	10(100)	0(0)	0(0)	0(0)
Third Group(18)	5(100)	5(100)	0(0)	0(0)	0(0)
Others(117)	68(100)	58(85.3)	9(13.2)	1(1.5)	0(0)
Total(512)	83(100)	73(88.0)	9(10.8)	1(1.2)	0(0)

First Group : Big Eight Accountancy Firms

Second Group: 7 Accountancy Firms Following Big Eight

Third Group : 5 Accountancy Firms Following Big Eight and Seven Firms

Others : Accountancy Firms Not Included in First ,Second and Third Groups

7) The companies for which prestigious accountancy firms were appointed as reporting accountants alongside existing non-prestigious accountancy firms are considered as case of reporting accountant change.

In addition, we investigated the impact of the change of reporting accounting on the valuation of unseasoned new issues by testing the difference of average market adjusted valuation of unseasoned new issues by testing the difference of average market adjusted return between change and no change of auditor, using the firms (n=117) employing auditors from the fourth group accounting firms. As shown in Table 6, the average market-adjusted return of initial public offerings of firms that changed their reporting accountants is smaller than that of IPOs of firms which did not change their auditors. Our finding on the differential excess return between change and no change of reporting accountants is statistically significant. Considering the fact that most of firms which changed their existing auditors selected their reporting accountants from the Big Eight accounting firms, this evidence implies that there is a negative relation between reputation and underpricing. We also find that the IPOs of firms which changed their auditors showed less variance in returns and this fact could be a positive signal to the investors in terms of firms risk.

Table 6. Test of Differences in Market Performance between Change and No Change of Reporting Accountants Among the Fourth Group

Aftermarket Performance	AAR		t-Value	2-Tail Prob.
	No Change(n=49)	Change(n=68)		
AAR1	.1857	.1219	1.76	.082
AAR5	.2016	.1165	2.27	.025
AAR25	.2154	.1076	2.28	.025
STD	.0476	.0352	1.93	.057

#### 4.4 The Association between Firm Value and Reputation of Reporting Accountant

Hypothesis 2 is that the quality of reporting accountants is positively related to the value of firms going public. Panel A of Table 7 shows the regression result on the relation between firm value and quality of reporting accountants (1 if Big Eight, 0 otherwise) based on definition 1 and the estimated coefficient of reporting accountant variable is positive but not significant. Then, the signs of the estimated coefficients for control variables are consistent with the prediction.

Employing the definition 2<sup>8)</sup> for the reputation dummy variable, the regression result is presented in panel B of Table 7. The coefficient of reporting accountants (REPAC2) is positive and significant at the level of 0.05 significance. Other variables also are all consistent with the predicted signs and are statistically significant at the conventional level.

Table 7. Regression Analysis on the Association between Firm Value and Accounting Firm

A. Regression of Firm Value on Definition 1 of Reporting Accountant Quality (Big Eight and Non-Big Eight)

$$LNMV1 = b_0 + b_1REPAC1 + b_2LNSL + b_3TYPE + b_4MKT + b_5LNOP$$

----- Variables in the Equation -----

Variable	B	SE B	Beta	T	Sig T
REPAC1	.053558	.089747	.022428	.597	.5510
LNSL	.226937	.035338	.274670	6.422	.0000
TYPE	.560173	.120542	.198493	4.647	.0000
MKT	.522423	.101057	.229307	5.170	.0000
LNOP	.240829	.091648	.105792	2.628	.0089
(Constant)	.633648	.410658		1.543	.1235

Adjusted R Square .35319  
 F = 52.21978      Signif F = .0000

B. Regression of Firm Value on Definition 2 of Reporting Accountant Reputation

$$LNMV1 = b_0 + b_1REPAC2 + b_2LNSL + b_3TYPE + b_4MKT + b_5LNOP$$

----- Variables in the Equation -----

Variable	B	SE B	Beta	T	Sig T
REPAC2	.275840	.129602	.080752	2.128	.0338
LNSL	.218831	.035392	.264859	6.183	.0000
TYPE	.562916	.120010	.199465	4.691	.0000
MKT	.519785	.100613	.228150	5.166	.0000
LNOP	.221793	.091465	.097430	2.425	.0157
(Constant)	.534964	.411652		1.300	.1944

8) We assigned 1 if reporting accountants belong to first group (Big Eight) or second group (large 7 accounting firms), 0 otherwise.

Adjusted R Square = .35895

F = 53.52327      Signif F = .0000

LNMV1 = LN(MV1), where, MV1 is the market value of the issuing firm based on the first trading price

REPAC = Reporting Accountant Reputation

LNSL = LN(Sales)

TYPE = method of issues, 1 if offer for sale, 0 if placings

MKT = market level, 1 if official list, 0 if USM

LNOP = LN(Offer Price).

Our findings suggest that a positive relation exists between firm value and the reputation of accounting firms and further the reputation classification according to the definition 2 is more significant in explaining the association between value of firm and accountants' prestige, compared to Big Eight and Non-Big Eight classification. This evidence is in contrast with US empirical findings on the impact of reputation of auditor on the market value of firm, using the classification of Big Eight and Non-Big Eight.

## V. Concluding Remarks

Using IPOs data of the 512 UK firms, we investigated the role of the accounting firm in the process of initial public offerings. The difference of means of variables about firm size is pronounced according to the reputation of accounting firm employed. Although the difference in the average of market performance variables and standard deviation between more reputable accounting firms and less reputable accounting firms is uncertain, IPOs of the issuing firms employing reputable accounting firms would be less underpriced. These findings suggest that the IPOs of firms which employed more prestigious reporting accountants would show less price run-up in the secondary market. In addition, through employing reputable accounting firms, the firms going public could reduce the investor's uncertainty about the content of the financial statements and would further improve the quality of information related to the IPOs of firms going public.

We found that the issuing firms employing less prestigious accounting firms as their auditors would tend to change their existing accounting firms at the time of going public. Our empirical finding concerning the change of auditors confirms Carpenter and

Strawser's (1971) and Menon and Williams' (1991) findings that IPOs would trigger a change to a more prestigious auditor.

Our hypothesis that the quality of reporting accountants is positively associated with the value of the issuing firms would be confirmed by observing a positive relation between firm value and the reputation of accounting firms. In particular, employing the definition 2, our empirical finding is more significant in explaining the association between the firm value and the reputation of accounting firms.

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**Appendix** : Classification of Reporting Accountants in the UK

First Group (8)

KPMG Peat Marwick McLintock

Coopers & Lybrand

Price Waterhouse

Ernst & Whinney

Touche Ross

Arthur Andersen

Deloitte Haskins & Sells

Arthur Young

Second Group (7)

Grant Thornton

Binder Hamlyn

Spicer & Oppenheim

Pannell Kerr Forster

Stoy Hayward

Clark Whitehill

Moores Rowland



Third Group (5)

Neville Russell

Robson Rhodes

Kidsons

Moore Stephens

Hodgson Impey

