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Professor Frank S. Skinner School of Social Sciences Brunel University London, Uxbridge, UB8 3PH UK Email address: <u>frank.skinner@brunel.ac.uk</u>Tel: +44 (0)1895 267948 This study examines the impact of financial reporting credibility and investor base, factors that are rarely investigated, and listing location, a factor not previously examined, on analyst coverage using a sample of UK listed companies. A study using UK data is warranted as we find that institutional ownership is much more prevalent in the UK than is the case in the USA. Listing on the main board as opposed to the junior market is significantly and positively related to the number of analysts following the company's shares. Moreover, factors that significantly influence analysts following do depend upon listing location.

Key words: Analyst Coverage, Security Analyst, Institutional Investors, AIM

JEL: G12; G14; M4; G230, G240, M490

Analysts collect a wide variety of information about the firms they follow, analyse it and produce their reports. These reports may include buy, sell or hold recommendations, the competitive position of the firm relative to its rivals and analysts' forecasts of earnings and cash flows (Bhushan, 1989). Demand for analyst services arises in situations characterised by information asymmetry where agency problems among outside providers of finance and management may arise. With the separation of the ownership of a company's resources from its control, two agency problems can arise between the management of a business and its providers of external funding. First, outside providers of finance may be unfamiliar with the day-to-day activities of the business and have little or no access to internal information; by contrast, managers are fully informed about these matters. Thus, managers know more about the intrinsic value of their firms relative to the extnf,emaxi both current and potential investors and to the financial intermediaries they represent about the quality of investment opportunities.

Empirical findings provide some evidence to support these arguments. For example, Doukas et al. (2005) and Jung et al. (2012) suggest that financial analysts facilitate more effective monitoring of the firms' activities thereby reducing agency costs and increasing shareholders' value. Results of Baik et al. (2010) and Gotti et al. (2012) shows that more analysts following increases firm value and reduces audit fees. In addition, Lang et al. (2012) document higher liquidity and lower transaction costs when the num num a20.1584(n)-003(n)-10.3015(c(n)- linear regression model that does not suit datasets

these factors explain 82% of the variation in the number of analysts following a UK listed company.

Importantly, listing on the main board as opposed to the junior market is significant and positively related to the number of analysts following the company's shares. Moreover, once we separately examine listing location, we find that different factors influence the number of analysts following. For the main FTSE350 market only, the percentage of institutional ownership is negatively and the residual variance and financial reporting credibility are positively associated with the number of analysts following. Meanwhile, firm size and the number of shareholders is positively associated with the number of analysts following only for the junior market. Finally, the overall relationship between the number of for or supply of analyst service or both. He assumes that both the aggregate demand and supply functions are continuous and twice differentiable in all their arguments. He also assumes that the demand curve is downward sloping and the supply curve is upward sloping, thus:

$$TC^{*}(k_{1},k_{2},...,k_{n}) = P^{*}(k_{1},k_{2},...,k_{n})Q^{*}(k_{1},k_{2},...,k_{n})$$
(1)

In (1), TC* is the equilibrium total expenditure by investors on analyst service for a particular firm in a given period, Q* is the corresponding equilibrium of the aggregated demand for analyst service for the firm during this period, P* is the equilibrium price and $k_1,k_2,...,k_n$ are the company characteristics. Using comparative statics, Bhushan (1989) deduced that the effect of any firm characteristic k_i on the equilibrium total expenditure by

such firms trying to build and preserve their own reputations for credible financial reporting. In addition, Francis et al. (2013) suggest that earnings quality is higher for clients of the large audit firm where Big 4 client accruals are smaller in magnitude, clients are more likely to report losses, and clients exhibit more timely loss recognition. Behn et al. (2008)
$$\begin{split} \text{NANAL}_{i} &= b_{0} + b_{1} \text{NINST}_{i} + b_{2} \ \% \text{INST}_{i} + b_{3} \ \% \text{INSID}_{i} + b_{4} \ \text{RES.VAR}_{i} + b_{5} \ \text{NSEG}_{i} \\ &+ b_{6} \ \text{NLISTING}_{i} + b_{7} \ \text{MVALUE}_{i} + b_{8} \ \text{REG}_{i} + b_{9} \ \text{BETA}_{i} + b_{10} \ \text{MRT}_{i} + b_{11} \ \text{BIG4}_{i} \\ &+ b_{12} \ \text{NOSHOLD}_{i} + i \end{split}$$
(3)

The data for this study are collected from the Bloomberg and FAME databases. The initial sample consists of 1,028 companies in the financial year 2011. After removing companies with no observation on the number of analysts following the firm, the final sample consists of 272 FTSE350 and 508 AIM companies, thus 780 observations in total.

Table 2 provides the descriptive analysis of all variables. It shows that the average number of analysts following a UK listed company is seven while the median is two. The percentage of shares held by institutions and insiders for an average UK listed company is 77% and 21% respectively. This implies that UK listed companies are mostly owned by institutions with an average number of 151 institutions holding shares in a firm. This result is consistent with the Office of National Statistics (2006) which reports that only 12.8% of all UK shares are held by individual investors. In contrast, in the US market, institutions hold only 35% and only 93 institutions hold shares in the average company (Bhushan, 1989: 265). These facts highlight the differences between the UK and US market and demonstrate why a study of the UK market is warranted.

Additionally, a UK listed company is on average listed on 17 stock exchanges worldwide and has 3 recorded segments. The market value of the companies included in the sample varies from £1.96 billion to £89.758 billion. Systematic risk is on average 1 and the average number of shareholders is 51,000. The difference between the minimum value and the maximum value of each variable reflects the composition of the sample firms which includes

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< Insert table 4 about here>

The results for both markets in Table 4 show that only six variables, the percentage of institutions holding shares in a firm (%INST), the number of lines of business (NSEG), firm

institutional ownership is more prevalent in the UK market. In contrast to prior UK studies, we use a negative binomial regression analysis which best suits a discrete dependent variable.

The initial results show that the main factors that drive the number of analysts following a firm in the UK market are: firm size, institutional holding, market beta, listing location and the number of lines of business. There is also evidence that the industry sector affects the number of analysts following a firm. These variables explain 80% of the varianc0.29558 22(20)+

the size of the firm's investor base. The results show that these variables are significantly and positively associated with the number of analysts following.

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Table 1: Variable definition

Variable	Definition	Expected sign
NANAL	Number of analysts making recommendations for the security.	

 Table 2: Descriptive Analysis

Mean Median Max. Min. STD

Table 3 Pearson correlation

NANAL	NINST	%INST	%INSID	RES.VAR	NSEG	NLISTING	MVALUE	REG	MRT	BIG4	BETA
0.858**	1										
0.362**	0.364**	1									
-0.423**	-0.413**	-0.453**	1								
-0.049	-0.027	0.028	-0.044	1							
0.504**	0.591**	0.135**	-0.209**	-0.030	1						
0.830**	0.749**	0.385**	-0.443**	-0.042	0.463**	1					
0.512**	0.758**	0.041	-0.183**	-0.017	0.476**	0.383**	1				
0.055	0.121**	0.015	0.060	-0.033	0.069	0.061	0.074	1			
0.823**	0.678**	0.384**	-0.415**	-0.053	0.411**	0.922**	0.297**	0.086*	1		
0.539**	0.446**	0.337**	-0.325**	-0.057	0.268**	0.545**	0.189**	0.053	0.595**	1	
											1
0.797**	0.818**	0.518**	-0.507**	-0.054	0.444**	0.768**	0.484**	0.063	0.760**	0.559**	0.287**
	NANAL 0.858** 0.362** -0.423** -0.049 0.504** 0.830** 0.512** 0.055 0.823** 0.539** 0.797**	NANAL NINST 0.858** 1 0.362** 0.364** -0.423** -0.413** -0.049 -0.027 0.504** 0.591** 0.830** 0.749** 0.512** 0.758** 0.055 0.121** 0.823** 0.678** 0.539** 0.446**	NANAL NINST %INST 0.858** 1	NANAL NINST %INST %INSID 0.858** 1	NANAL NINST %INST %INSID RES.VAR 0.858** 1 -0.413** 1 -0.423** -0.413** -0.453** 1 -0.423** -0.413** -0.453** 1 -0.423** -0.413** -0.453** 1 -0.049 -0.027 0.028 -0.044 1 0.504** 0.591** 0.135** -0.209** -0.030 0.830** 0.749** 0.385** -0.443** -0.042 0.512** 0.758** 0.041 -0.183** -0.017 0.055 0.121** 0.015 0.060 -0.033 0.823** 0.678** 0.384** -0.415** -0.053 0.539** 0.446** 0.337** -0.325** -0.057	NANAL NINST %INST %INSID RES.VAR NSEG 0.858** 1 -0.413** 1 -0.423** -0.413** -0.453** 1 -0.423** -0.413** -0.453** 1 -0.423** -0.413** -0.453** 1 -0.049 -0.027 0.028 -0.044 1 -0.504** 0.591** 0.135** -0.209** -0.030 1 0.504** 0.591** 0.135** -0.209** -0.042 0.463** 0.512** 0.749** 0.385** -0.443** -0.042 0.463** 0.512** 0.758** 0.041 -0.183** -0.017 0.476** 0.055 0.121** 0.015 0.060 -0.033 0.069 0.823** 0.678** 0.384** -0.415** -0.053 0.411** 0.539** 0.446** 0.337** -0.325** -0.057 0.268**	NANAL NINST %INST %INSID RES.VAR NSEG NLISTING 0.858** 1 -0.423** 0.364** 1 -0.423** -0.413** -0.453** 1 -0.423** -0.413** -0.453** 1 -0.423** -0.413** -0.453** 1 -0.049 -0.027 0.028 -0.044 1 -0.504** 0.591** 0.135** -0.209** -0.030 1 0.504** 0.591** 0.135** -0.209** -0.042 0.463** 1 0.512** 0.749** 0.385** -0.443** -0.017 0.476** 0.383** 0.055 0.121** 0.015 0.060 -0.033 0.069 0.061 0.823** 0.678** 0.384** -0.415** -0.053 0.411** 0.922** 0.539** 0.446** 0.337** -0.325** -0.057 0.268** 0.545**	NANAL NINST %INST %INSID RES.VAR NSEG NLISTING MVALUE 0.858** 1 -0.423** 0.364** 1 -0.423** -0.413** -0.453** 1 -0.423** -0.413** -0.453** 1 - NISSIN - - - - - - - - - - - - - - -	NANAL NINST %INST %INSID RES.VAR NSEG NLISTING MVALUE REG 0.858** 1 -0.423** 0.364** 1 -	NANAL NINST %INST %INSID RES.VAR NSEG NLISTING MVALUE REG MRT 0.858** 1 - <td< th=""><th>NANAL NINST %INST %INSID RES.VAR NSEG NLISTING MVALUE REG MRT BIG4 0.858** 1 -</th></td<>	NANAL NINST %INST %INSID RES.VAR NSEG NLISTING MVALUE REG MRT BIG4 0.858** 1 -

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Table 4: This table reports the factors that determine the number of analysts following firms (NANAL) in the UK FTSE350, AIM markets and both markets combined using the negative binomial count regression method. Variable definitions are shown in Table 1. The regression model takes the following form: NANAL_i = $b_0 + b_1 \text{Log} (1 + \text{NINST}_i) + b_2 \text{Log} (1 + \% \text{INST}_i) + b_3 \text{Log} (1 + \% \text{INSID}_i) + b_4 \text{RES.VAR}_i + b_5 \text{Log} (1 + \text{NSEG}_i) + b_6 \text{Log} (\text{NLISTING}_i) + b_7 \text{Log} (\text{MVALUE}_i) + b_8 \text{REG}_i + b_9 \text{BETA}_i + b10 \text{MRT}_i + i$

Variable		FTSE350	AIM	Total
С		0.223	-2.019**	-1.316**
		(0.702)	(0.001)	(0.000)
Log (1+NINST)	+/-	0.413**	0.218*	0.094
		(0.000)	(0.094)	(0.165)
Log (1+%INST)	+/-	-0.147*	0.013	0.202**
		(0.091)	(0.942)	(0.012)
Log (1+%INSID)	-	0.003	0.068	0.014
		(0.900)	(0.133)	(0.494)
RES.VAR	+	0.121**	-0.068	-0.015
		(0.010)	(0.131)	(0.252)
Log (1+NSEG)	-	-0.049	-0.063	-0.079**
		(0.166)	(0.719)	(0.051)
Log (NLISTING)	+	0.186	-0.119*	-0.072
		(0.273)	(0.089)	(0.266)
Log (MVALUE)	+	0.054	0.526**	0.262**
		(0.121)	(0.000)	(0.000)
REG	-	-0.094**	-0.355**	-0.144**
		(0.030)	(0.024)	(0.003)
BETA	+	0.009	0.029	0.104**
		(0.822)	(0.757)	(0.011)
MRT	+			1.058**
				(0.000)
Ν		210	204	414
Adjusted R-squared		0.58	0.62	0.81
Log likelihood		-638	-307	-994

Values in parentheses are probabilities of significance. **Significant at 5% level or less (two-tailed). *Significant at 10% level (two-tailed)

Table 5: This table reports the factors that determine the number of analysts following UK listed companiesas reported in Table 4 plus three additional variab