An empirical examination of forecast disclosure by bidding companies

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Abstract

This paper examines voluntary disclosure of profit forecasts by bidding companies during takeovers. Disclosure is examined from two perspectives: (i) factors influencing disclosure and (ii) the influence of good news and bad news on disclosure.

Takeover documents published during 701 takeover bids for public companies listed on the London Stock Exchange in the period 1988 to 1992 were examined.

Two variables accounted for almost all the influences on disclosure of forecasts: bid horizon and type of bid. Probability of forecast disclosure was greater the shorter the bid horizon and during contested bids. In addition, there was some evidence that the nature of the purchase consideration offered by the bidder (cash or paper) and the industry of the bidder influenced disclosure. Disclosure was significantly more likely in paper bids and in the durable goods industry.

Forecasts were more likely to be disclosed when firms had good news to report.

1. Introduction

Studies of the behaviour of bidding companies and their management include examination of bidder motives for acquisitions and the influence of bidding company managerial wealth effects on takeovers. This paper extends the research of bidding company behaviour to disclosure decisions taken during takeovers. Factors that help explain bidding company decisions to publish profit forecasts are analysed.

Many US analytical and empirical studies of disclosure of annual earnings forecasts have focused on the influence on disclosure of the news content of forecasts. Evidence in the US has been mixed. This research examines whether managers are motivated to signal good news about superior prospects by disclosing profit forecasts.

Forecasts are rarely disclosed in the UK except in new share issue prospectuses and during takeover bids. Previous UK studies, by and large, have considered the topic of profit forecasts disclosed during takeover bids (Carmichael, 1973; Dev and Webb, 1972; Westwick, 1972) and in new issue prospectuses (Ferris,1975 and 1976; Keasey and McGuinness, 1991; Firth and Smith, 1992) from the standpoint of accuracy of, and bias in, the forecasts. Studies of users' needs have shown forecast information to be one of the most important financial disclosures a company can make (Courtis, 1992). Given the perceived importance of forecasts, it is surprising that more research in the UK has not been devoted to examining their disclosure.

1.1 Regulation of takeovers in the UK

Regulation of takeovers of public companies in the UK is primarily governed by *The City Code on Takeovers and Mergers* (Panel on Takeovers and Mergers, 1993), by *The Listing Rules* (London Stock Exchange, 1997) and, to a lesser extent, by the Companies Act 1985 (Great Britain, 1985). These regulations are briefly summarised in Sudarsanam (1995).

Public companies quoted on the London Stock Exchange may be acquired by the purchase of shares on the Stock Exchange (uncommon because of legal regulations, and because *The City Code on Takeovers and Mergers* requires a compulsory offer once 30 percent of shares are acquired) or by an offer to shareholders for all or part of

the target's share capital. Offers to shareholders may be with the agreement of the target's management (agreed bids) or may be hostile bids.

Takeover bids in the UK may be categorised into three groups:

- Agreed or friendly bids - offers to shareholders made with the agreement of the target's management;
- Hostile bids - where the target company management indicate disagreement with the terms of the bid (e.g. that the price offered is too low);
- Competing bids - these are bids where there is more than one bidder competing for the target. Some of these bids may be with the agreement of target management (white knight bids) or may be hostile bids.

The term 'contested' is defined in this paper as including both hostile and competing bids.

Neither the London Stock Exchange nor the Panel on Takeovers and Mergers compels directors to make a profit forecast, with one exception: Any disclosure before a takeover bid, of financial information relating to unaudited results, is deemed under the City Code to amount to a forecast and must be included as a formal profit forecast in the bid documentation. This might happen, for example, in informal briefing sessions between company management and financial analysts. Thus, most forecasts are made voluntarily, but some are included involuntarily in takeover documents.

All forecasts (both voluntary and involuntary) must be reported on in the UK by independent accountants and the company's financial advisors (except for forecasts made by bidders offering cash). The accountants must satisfy themselves that the forecast, so far as the accounting policies and calculations are concerned, has been properly compiled on the basis of assumptions disclosed.

1.2. Motivations for disclosure

Forecasts are normally made during takeover bids to support arguments being put forward by directors. These forecasts are included in offer documents sent by the bidding company to its shareholders and to target company shareholders. Thus, there

is a much wider audience for these disclosures than for disclosures made in more routine circumstances.

There are at least three reasons why bidding company directors would disclose a forecast:

- To support the price of shares being offered to target shareholders as consideration for the target;
- To support the price of new shares issued to bidding company shareholders to raise cash to acquire the target;
- To persuade target shareholders that bidding company management will run the company better than current management.

2. Prior research

2.1 Factors influencing disclosure

Prior research suggests that a number of factors are related to disclosure of forecasts.

Type of bid

The type of bid may influence the propensity of firms to disclose information. There is evidence from Gray, Roberts and Gordon (1991) that more forecasts are voluntarily disclosed during contested bids. Contested bids are characterised by attacks on the performance of management. Such attacks are common when management do not disclose a forecast to support their claims of good performance. More forecasts are expected, therefore, in contested bids.

Bid horizon

The primary motivation for bidders to disclose forecasts is to support the price of any shares issued during the takeover. However, there is risk associated with forecast disclosure. It is not clear which is more important - keeping shareholders informed about results or avoiding the risk of the forecast not being achieved.

It is likely that the closer a company is to its year end the longer it will have been since it last reported results to shareholders and the greater the need to disclose a forecast to inform shareholders about company performance. Equally, companies

prefer to make forecasts close to the year end as this reduces the risk of getting the forecast wrong. Evidence from the US suggests that the frequency of forecasts increases as the end of the reporting period approaches (McNichols, 1989). Thus, forecasts are expected to be disclosed the shorter the bid horizon (i.e. the shorter the period between making the forecast and the forecast period end).

Purchase consideration

Purchase consideration ranges from cash to paper to a mixture of both. Previous research has shown purchase consideration to influence takeover bids. Carleton, Guilkey, Harris and Stewart (1983) argue that cash takeovers and security exchange mergers may be motivated by different considerations. Franks, Harris and Mayer (1988) and Travlos (1987) find evidence that when shares (rather than cash) are used to finance takeovers, there are negative returns to acquirers. Berkovitch and Narayanan (1990), Eckbo, Giammarino and Heinkel (1990) and Fishman (1989) show that, when there is information asymmetry between bidder and target, high synergy bidders use cash and low synergy bidders use shares to finance the takeover.

From a bidder's point of view, one of the main reasons for disclosing a forecast is to add credibility to the value of the shares being issued in consideration for the target. If the consideration is cash, a forecast by bidders may not be as relevant. Bidders' average share prices fall at the announcement of bids (Limmack, 1991) hence, even in cash bids, a forecast is potentially useful. Also, legal considerations may prompt disclosure of forecasts by bidders. In summary, forecasts are expected to be disclosed by bidders primarily during paper bids.

Management ownership

Agency theory posits that firms will voluntarily disclose information to reduce agency costs. The degree of conflict between managers and shareholders is predicted to increase inversely with managers' ownership share (Jensen and Meckling, 1976). Therefore, as managers' ownership share falls, monitoring and bonding costs will increase. Firms with lower percentage management ownership will require a higher level of monitoring and are therefore more likely to disclose forecasts.

Ruland, Tung and George (1990) tested agency theory in the context of the voluntary disclosure of earnings forecasts. They found management ownership to be significantly lower for forecast disclosing firms.

Large block shareholdings

Firms with higher concentrations of large shareholders are more likely to be able to communicate information to shareholders privately. Consequently, firms with a larger proportion of share capital concentrated amongst a few large shareholders are likely to find disclosure of such private information easier than firms with more dispersed shareholdings and so can avoid public disclosure of information. Schipper (1981: 86) argues this point from an agency perspective by stating '*monitoring problems that could be solved by issuing public accounting reports would be increasing in the number of owners...*'. Thus, firms with larger proportions of their share capital held by larger shareholders are less likely to disclose forecasts.

Size of firm

Size proxies for many variables. As Ball and Foster (1982) point out, results confirming a size hypothesis may have alternative explanations. Care must be taken in interpreting the results of tests including this variable.

In early research of differences between forecasting and nonforecasting firms, firms were found to differ most on size and earnings variability. Ruland (1979), Cox (1985), Waymire (1985), Lev and Penman (1990) and Clarkson, Kao and Richardson (1994) found forecasting firms to be systematically larger than nonforecasting firms. Economies of scale in disclosure and litigation deterrence (larger firms are more exposed to litigation as they are seen to have '*deeper pockets*') are two reasons put forward by Kasznik and Lev (1995) explaining why size might be related to disclosure. They found firm size to be a significant explanatory variable of the likelihood of discretionary disclosure for good news and bad news firms.

Another possible explanation relating size to disclosure is that large firms have a greater need for disclosure as their shares are more widely traded. Leftwich, Watts and Zimmerman (1981) and Bradbury (1992) included size to proxy for agency costs of

capital held by outsiders on the assumption that the proportion of outside capital tends to be higher for larger firms.

There are various other reasons why size might be related to disclosure. It is less costly for larger companies, with more sophisticated accounting and forecasting systems, to disclose forecasts. The cost of assembling the information is greater for small firms than large firms (Securities and Exchange Commission, 1977). This is particularly likely in the context of publishing a formal profit forecast (within the fairly tight time constraints of a takeover bid) which would need reliable forecasting systems.

Larger bidders are expected to be more likely to disclose forecasts.

Listing status

Listing status has been found to be related to voluntary disclosure, with listed firms disclosing more than unlisted firms (Leftwich, Watts and Zimmerman, 1981; Cooke, 1992; Malone, Fries and Jones, 1993). The bidding firms in this research range from individuals, consortiums of individuals, private companies to foreign listed companies so listing status needs to be controlled for.

Industry

Industry is predicted to be related to disclosure for a number of reasons. Different industries have different proprietary costs of disclosure. Also, profits in some industries are easier to forecast than in others. Industry membership has been found to be related to the accuracy of forecasts disclosed (Jaggi, 1978). Consequently, control for the effect of industry is necessary.

Nationality

Many of the bidders are foreign. International accounting research has documented differences in disclosure practices by firms from different countries (Biddle and Saudagaran, 1989; Frost and Pownall, 1994). This variable also needs to be controlled for.

To summarise, the variables hypothesised to influence forecast disclosure by bidders, and the model tested in this research, is as follows:

Forecast disclosure $= f$ (Type of bid, Bid horizon, Purchase consideration,

Management ownership, Large block shareholdings,

Size of firm, Listing status, Industry, Nationality)

2.2 News in forecasts

Economic theory suggests that, in the absence of mandatory disclosure, firms will disclose information to the extent that marginal benefits will be greater than the costs of disclosure. The main benefit of disclosure is enhancement of firm value in terms of increased share price. Milgrom (1981) introduces a notion of 'favourableness' of news and shows (*inter alia*) that the arrival of good news about a firm's prospects always causes the share price to rise. Signalling theory suggests that firms are motivated to signal good news and such firms are more likely to disclose a forecast.

Expectations adjustment hypothesis

The expectations adjustment hypothesis of Ajinkya and Gift (1984) is that managers disclose forecasts to change investors' expectations of future earnings. This suggests that managers have incentives to disclose both favourable and adverse forecasts. They compare management forecasts with analysts' forecasts prevailing just prior to the release of the management forecast (as surrogates for market expectations). Their results support the hypothesis that forecasts occur in cases in which good news and bad news adjustments are called for, and the market responds symmetrically to the direction and magnitude of these forecast signals. Ruland, Tung and George (1990) found that managers' forecasts tend to confirm rather than correct analysts' forecasts.

Skinner (1994) finds in his classification of disclosure announcements that approximately 5% of observations fall into the no news category. This, he comments, is consistent with the view that managers disclose information to change earnings expectations. Whereas Ajinkya and Gift (1984) only considered point and narrowly defined range forecasts, Skinner's findings are based on varied types of forecast, including qualitative forecasts.

Good news / bad news

Empirical evidence on the role of good news in motivating forecast disclosure is mixed. Patell (1976), Penman (1980) and Lev and Penman (1990) find that earnings forecasts are in general associated with positive returns, and that firms with good news appear more willing to reveal their forecasts. Lev and Penman (1990) find, consistent with their signalling hypothesis, that firms with good news voluntarily release forecasts in order to distinguish themselves from firms with worse news. As there were several bad news forecasts in the samples, there must be some incentives for management to publish these forecasts even though they result in downward revaluation. Thus, while firms typically publish earnings forecasts when they have good news, this is not always so.

Research based on later time periods indicates that firms are as likely to issue good news forecasts as bad news forecasts. Ajinkya and Gift (1984), Waymire (1984) and Ruland, Tung and George (1990) did not observe an overall tendency to report good news. They show that incentives exist for management to disclose both good and bad news. Baginski, Hassell and Waymire (1994), Pownall, Wasley and Waymire (1993) and Skinner (1994) provide evidence that firms are more likely to disclose bad news than good news. Clarkson, Dontoh, Richardson and Sefcik (1992) and Clarkson, Kao and Richardson (1994) found that the mean value of the good news measure for Canadian forecasters significantly exceeded nonforecasters. However, when financial market and product market considerations are included, Clarkson, Kao and Richardson (1994) find, consistent with more recent US literature, that the good news hypothesis offers only partial explanation for the decision to forecast.

As the weight of evidence supports the disclosure of good news, it is hypothesised that more good news than bad news forecasts will be disclosed.

One explanation for the variations in US findings is that most studies examine only point and range forecasts of annual earnings (e.g. Penman, 1980; Ajinkya and Gift, 1984; Waymire, 1984; McNichols, 1989; Pownall and Waymire, 1989) or very quantitative forecasts (e.g. Patell, 1976). Lev and Penman (1990) and Skinner (1994)

consider point and range forecasts and, in addition, open ended (i.e. bounded from either above (upper-bound) or below (lower-bound)) and qualitative forecasts. Similarly, Baginski, Hassell and Waymire (1994) consider minimum, maximum and 'general impression' estimates as well as point and range estimates. Pownall, Wasley and Waymire (1993) find no significant differences in stock returns for different forecast types, although point forecasts were associated with more positive and more significant returns. Point and range forecasts comprised less than 20 percent of their sample.

This paper examines whether forecast disclosure was motivated by good news and whether good news or bad news forecasts were disclosed. Signalling good news and the news content of forecasts is likely to have greater economic consequences during takeover bids than in routine disclosure situations (such as annual forecast disclosures) examined by other researchers. The study includes qualitative as well as quantitative upper/lower bounded, point and range forecasts.

3. Data and methodology

3.1 Population and selection of sample

The sample chosen for study covers all takeover bids for companies listed on the London Stock Exchange during the period 1988 to 1992.

Acquisitions Monthly was used to obtain a list of all public company takeovers in the UK over the five year period of the study. In total, 705 completed and failed bids were listed for 1988 to 1992. Four bids listed by *Acquisitions Monthly* were excluded: two bids, occurring in late December, were included twice in two different years by *Acquisitions Monthly*; in one further case, the target had previously been taken over by a public company and was therefore a private company at the date of the second bid - takeover documents were not publicly available for the bid; the fourth bid excluded did not take place, even though it was reported as a takeover by *Acquisitions Monthly*. The resulting full population of 701 bids is included in this study.

Takeover bids are analysed by type in Table 1. There were 477 agreed bids, 160 hostile bids, 49 competing bids (more than one bidder) and 15 white knight bids. For

the ensuing analysis, hostile, competing and white knight bids are categorised as contested. In total, therefore, there were 224 contested bids in the sample.

Table 1 Analysis of takeover bids

	Agreed	Contested bids			Total
		Hostile	Competing	White knight	
Completed bids	462 (97%)	80 (50%)	26 (53%)	12 (80%)	580 (83%)
Failed bids	15 (3%)[1]	80 (50%)	23 (47%)	3 (20%)	121 (17%)
	477 (100%)	160 (100%)	49 (100%)	15 (100%)	701 (100%)

[1] These 15 agreed bids did not complete because either the bid was aborted by the bidder or because shareholders would not accept the terms of the offer.

3.2 Data collection

Forecasts were obtained from an examination of takeover documents for the entire sample of 701 bids. *Extel Financial*'s microfiche service contains microfiche copies of all documents issued by companies quoted on the London Stock Exchange. Any remaining missing documents were obtained by writing directly to bidders or their financial advisors.

3.3 Measurement of variables

The dependent variable is voluntary forecast disclosure (F) with a value 0 for nondisclosure, or for disclosure of involuntary/repeat forecasts, and 1 where one or more forecasts are voluntarily disclosed.

Type of bid (BID) is given a value of 0 for agreed bids and 1 for contested bids which include hostile, competing and white knight bids.

Bid horizon (BHOR) measures the closeness of the bid date to the year end of the bidder. BHOR is measured in days from the date of the bid to the accounts year end date for which accounts have not been published[1]. *Acquisitions Monthly* discloses the date of the most recent published accounts. This variable is scaled by the number of days in the year (365).

Because the date of takeover bids can be ascertained, BHOR can be measured and compared for forecasters and nonforecasters. Previous research, based on routine disclosures, has only been able to measure forecast horizon (Waymire, 1985; McNichols, 1989). As this cannot be calculated for nonforecasters, the horizon for forecasters and nonforecasters has not been compared in most prior research.

Purchase consideration (CON) is coded 1 for cash, 2 for paper and 3 for various combinations of cash and paper. Data on all these variables were obtained from *Acquisitions Monthly* or from the takeover documents.

Management ownership (MO) is taken from *Crawford's Directory of City Connections* and is the percentage of ordinary shares held by members of the board, their families and associates. *Crawford's Directory* is an annual publication. The directory for the same year as the bid was consulted. Where this information is not available in *Crawford's Directory,* beneficial interests of the directors and their families, as disclosed in the takeover documents, are used[2]. Where the bidder is an individual, a consortium of individuals or a family company, MO is recorded as 100 per cent.

Large block shareholdings (LBS) is the percentage equity of the company held by substantial (>5%) shareholders. This information is also obtained from *Crawford's Directory.*

Size (SIZE) is proxied by turnover measured in millions of pounds. Amounts were extracted from the most recent full set of accounts in each takeover document. Foreign currency amounts are translated at the rates ruling on balance sheet dates. Monthly foreign exchange rates were obtained from *Datastream.*

Listing status (QUOTED) is a dummy variable with the value 0 for companies not quoted on the London Stock Exchange and 1 for quoted companies.

Industry codes (IND) are obtained from *Crawford's Directory.* Crawford's industry index is based on categories used by the *Financial Times*. These were re-coded into

five dummy variables: capital goods, consumer-durable goods, consumer non-durable goods, other and banks and financial.

Nationality of bidder (NAT) is available from *Acquisitions Monthly*. There were 26 nationalities in the sample. These were coded 0 for UK/Irish bidders and 1 for other nationalities.

3.4 Measurement of news variables

Deviation from market expectations (ME) measures the difference between subsequent actual profit before taxation and consensus analysts' forecast of profit before taxation for the year. Consensus analysts' forecasts are taken from *The Earnings Guide*. This is a monthly publication; the data are extracted from the issue closest to and prior to the bid date. Subsequent actual results are also obtained from *The Earnings Guide*. The variable is scaled as follows:

$$\text{ME} = \frac{\text{Consensus analysts' forecast profit before tax - Actual profit before tax}}{\text{Actual profit before tax}}$$

Only 212 readings are available for ME. Coverage by *The Earnings Guide* is limited to UK publicly quoted companies widely followed by analysts.

ME is analysed between positive (POSME) and negative (NEGME) deviations. A positive deviation is one that is greater than zero; a negative deviation is less than or equal to zero.

Forecast deviation (FD) is the difference between forecast results and market expectations, as measured by consensus analysts' forecasts from *The Earnings Guide*. Consensus analysts' forecasts were obtained from the issue of the guide closest to and prior to the bid date. The difference was scaled as follows:

$$\text{FD} = \frac{\text{Forecast profit before tax - Consensus analysts' forecast profit before tax}}{\text{Consensus analysts' forecast profit before tax}}$$

4. Results

4.1 Factors influencing disclosure

The frequency of forecast disclosure by bidders is summarised in Table 2. In all, 66 forecasts were disclosed in 59 bids (out of 701 bids - 8%). Of the 66 forecasts, 6 related to either (i) forecasts of the combined group after takeover (often called *pro-forma* forecasts) or (ii) forecasts in respect of subsidiary companies of the bidder. More than one forecast was disclosed in some bids. A second forecast by a bidder is ignored for the purposes of the ensuing analysis, as are involuntary and repeat forecasts, leaving 47 bidders voluntarily disclosing a forecast.

Table 2 Frequency of forecast disclosure

	Forecast No.	No forecast No.	Total No.
Bid			
Agreed bids	33	444	477
Contested bids	26	198	224
	59	642	701
Forecast			
Voluntary	47		
Repeat/involuntary	19		
	66		

Summary descriptive statistics for all continuous variables are shown in Table 3. Missing values are a problem with some variables, especially LBS which is missing in 59% of cases. MO is missing in 32% of cases. Missing values are particularly a problem with bidders that are individuals, consortiums, private companies and foreign companies.

SIZE is highly positively skewed and assumptions of normality may be inappropriate. Consequently, nonparametric bivariate statistical tests (which require few assumptions about the form of distribution of the variables) are reported in this paper.

Table 3 Descriptive statistics of continuous independent variables

Variable	Mean	Median	Skewness	Standard deviation	No.	Missing values	Total
Bid horizon (days)	118	117	-0.26	117	571	130 (19%)	701
Size (£millions)	1,274	167	9.61[1]	4,057	544	157 (22%)	701
% Management ownership	30.1	9.9	1.02	38.0	478	223 (32%)	701
% Large block shareholdings	46.4	28.7	0.55	37.3	285	416 (59%)	701

[1] This value (compared with values given in tables by Kanji (1993: 43)) would indicate that assumptions that the variables are distributed normally are inappropriate.

Bid horizon	= Days from the date of the bid to the accounts year end date for which accounts have not been published
Size	= Turnover measured in £millions
% Management ownership	= % ordinary shares held by members of the board, their families and associates
% Large block shareholdings	= % equity of the company held by substantial (>5%) shareholders

Spearman bivariate rank correlations to examine correlation between the independent variables are shown in Table 4. There are three high correlations:

- QUOTED – LBS (-0.78) - quoted companies are (as expected) less likely than unquoted (e.g. private, family-owned companies, consortia) to have large block shareholders;

- MO-LBS (0.61) - Private, family-owned companies and consortia are likely to have large block shareholders and, for the same reason, high percentage management ownership; and

- MO-SIZE (-0.49) Private, family-owned companies and consortia with high percentage management ownership are significantly smaller firms.

The correlations in Table 4 also indicate that non-UK/Irish companies are significantly less likely to be quoted on the London Stock Exchange and to issue shares as consideration for the target. Foreign bidders are significantly larger than UK/Irish bidders. Firms with large block shareholdings are less likely to issue shares or a mixture of shares and cash as consideration for the target. Lastly, smaller firms are less likely to issue shares in consideration for the target.

Table 4 Bivariate Spearman correlations for independent variables

	BID	DCASH	DPAPER	DMIXED	BHOR	SIZE	MO	LBS	QUOTED	NAT
BID										
DCASH	-0.03									
DPAPER	-0.09*	0.08								
DMIXED	0.02	0.45**	0.52**							
BHOR	0.03	-0.03	0.12*	0.07						
SIZE	-0.01	0.24**	-0.35**	-0.10*	-0.01					
MO	-0.16**	-0.09	-0.17**	-0.26**	-0.15*	-0.49**				
LBS	-0.12*	-0.02	-0.31**	-0.32**	0.00	-0.33**	0.61**			
QUOTED	0.07	-0.14**	0.43**	0.32**	0.09*	-0.21**	-0.42**	-0.78**		
NAT	-0.05	0.14**	-0.39**	-0.26**	-0.08	0.40**	0.08	0.18**	-0.50**	
DCAPGDS	0.04	0.00	0.04	0.03	0.09	0.15**	-0.10	-0.04	0.10	-0.01
DDURGDS	-0.05	-0.03	0.03	0.02	0.07	0.01	0.02	0.00	0.02	0.03
DNONDUR	0.03	0.10	0.00	0.06	-0.05	0.03	0.13*	-0.07	0.07	0.02
DOTHER	-0.03	-0.04	-0.04	-0.05	-0.11*	0.01	-0.06	0.08	-0.01	0.00
DFIN	0.01	-0.05	-0.04	-0.06	0.02	-0.27**	0.04	0.04	-0.21**	-0.04

* Significant at < 0.05 ** Significant at < 0.01
  Number of cases varied depending on availability of data on each pair of variables

BID	= Type of bid: Agreed, Contested
DCASH, DPAPER, DMIXED	= Type of purchase consideration: Cash, Paper, Mixed (Cash and paper)
BHOR	= Bid horizon: Days from the date of the bid to the accounts year end date for which accounts have not been published
SIZE	= Turnover measured in £millions
MO	= Management ownership: % ordinary shares held by members of the board, their families and associates
LBS	= Large block shareholdings: % equity of the company held by substantial (>5%) shareholders
QUOTED	= Unquoted / quoted on the London Stock Exchange
NAT	= UK/Irish bidders, Other nationality bidders
DCAPGDS, DDURGDS, DNONDUR, DOTHER, DFIN	= Industry: Five categories - Capital goods, Durable goods, Non-durable goods, Financial, Other

In conclusion, there are few high correlations among the independent variables other than those highlighted.

Table 5 reports Mann-Whitney U test results of differences in mean rankings of the continuous variables of forecasting and nonforecasting bidders. The analysis is run on three different samples (i) the full sample of all available cases for analysis; (ii) the sample corresponding to the full model in logit analysis (see table 7); and (iii) the sample based on the reduced model.

Mean rankings differ significantly on BHOR for all three samples. Forecast disclosure is associated with lower bid horizons. In the case of the full sample only, mean rankings on SIZE and LBS are significantly different for forecasters and nonforecasters. Smaller bidders (contrary to expectations) and lower large block

shareholdings are associated with forecast disclosure. The unexpected finding between size and forecast disclosure may be explained by the presence in the full sample of foreign firms which are significantly larger than UK and Irish firms. Such firms are less likely to disclose a forecast. When foreign firms are excluded in the two smaller samples in Table 5, the mean rankings of size for forecasters is (as one would expect) higher (although not significantly so).

Table 5 Mann-Whitney U tests of differences in mean rankings between forecasters and nonforecasters for each continuous independent variable

	Mean rank			
	Based on full sample of available cases			
	Forecasters	**Nonforecasters**	**Z-stat.**	**Two-tailed probability**
Bid horizon	207	293	-3.42	0.00**
Size	227	276	-1.96	0.05*
% Management ownership	206	243	-1.61	0.11
% Large block shareholders	104	146	-2.35	0.02*
	Based on sample size of 316 per reduced model in Table 7			
	Forecasters	**Nonforecasters**	**Z-stat.**	**Two-tailed probability**
Bid horizon	87	168	-4.93	0.00**
Size	150	160	-0.62	0.53
% Management ownership	165	159	-0.38	0.71
% Large block shareholders	99	96	-0.26	0.79
	Based on sample size of 192 per full model in Table 7			
	Forecasters	**Nonforecasters**	**Z-stat.**	**Two-tailed probability**
Bid horizon	44	103	-4.74	0.00**
Size	89	97	-0.62	0.53
% Management ownership	107	95	-0.90	0.38
% Large block shareholders	99	96	-0.26	0.79

** Significant at < 0.01 * Significant at ≤ 0.05

Bid horizon	= Days from the date of the bid to the accounts year end date for which accounts have not been published
Size	= Turnover measured in £millions
Management ownership	= % ordinary shares held by members of the board, their families and associates
Large block shareholdings	= % equity of the company held by substantial (>5%) shareholders

Table 6 summarises the analysis of categorical variables between forecasters and nonforecasters. As predicted, the frequency of forecast disclosure by bidders is greater during contested bids. Of the 47 voluntary forecasts, 26 were disclosed during agreed bids and 21 during contested bids. Thus, a forecast was disclosed in only 5% of all agreed bids, whereas one was disclosed in 9% of all contested bids.

Purchase consideration ranged between cash, paper and various combinations of cash and paper. Nearly half were cash bids, with the remainder fairly evenly divided between paper or a mixture of cash and paper bids. Less than half the bidders are quoted companies. A good spread of industries is represented in the population. The majority of firms are UK/Irish firms, with a substantial group of foreign companies. There are a large number of missing values on the variable industry.

Purchase consideration, listing status and nationality were significantly different for forecasting and nonforecasting bidders. The frequency of disclosure is significantly greater in bids where the purchase consideration is paper or mixed (cash and paper), and by listed and UK/Irish bidders. These findings are all in the predicted directions.

Only four bidders disclosed forecasts during cash bids. In two of these bids, forecast disclosure was motivated by the sale of shares to bidding company shareholders (to raise cash for the bid) rather than the takeover. In the remaining two bids, the contested nature of the bid seems to be the motivation for disclosure, even though the consideration is cash. Disclosure of a forecast might have been made to influence target shareholders (or possibly bidder shareholders) concerning the competence of bidder's management ability. Only two foreign bidders disclosed a forecast. Both were Dutch quoted companies.

Table 6 Differences in categorical variables between forecasters and nonforecasters		

	Forecasters No.	Nonforecasters No.
Bid		
Agreed	26 (55%)	451 (69%)
Contested	21 (45%)	203 (31%)
	47 (100%)	654 (100%)
Pearson chi-square 3.75 (d.f. 1) Significance 0.05*		
Purchase consideration		
Cash	4 (9%)	334 (52%)
Paper	25 (54%)	167 (26%)
Cash and paper	17 (37%)	146 (22%)
	46 (100%)	647 (100%)
Missing values	1	7
	47	654
Pearson chi-square 32.63 (d.f. 2) Significance 0.00**		
Listing status		
Quoted	38 (81%)	293 (45%)
Unquoted	9 (19%)	361 (55%)
	47 (100%)	654 (100%)
Pearson chi-square 22.86 (d.f. 1) Significance 0.00**		
Industry		
Capital goods	7 (19%)	86 (27%)
Durable goods	8 (22%)	30 (9%)
Non-durable goods	7 (20%)	81 (25%)
Banks and financial	8 (22%)	75 (24%)
Other	6 (17%)	48 (15%)
	36 (100%)	320 (100%)
Missing values	11	334
	47	654
Pearson chi-square 6.22 (d.f. 4) Significance 0.18		
Nationality		
UK/Irish companies	45 (96%)	475 (73%)
Other nationalities	2 (4%)	179 (27%)
	47 (100%)	654 (100%)
Pearson chi-square 12.23 (d.f. 1) Significance 0.00**		

** Significant at < 0.01 * Significant at ≤ 0.05

Multivariate analysis is carried out using logistic regression (logit analysis) to test the dichotomous dependent variable: disclosure/nondisclosure of a forecast. Logit models measure the probability of an event (disclosure/nondisclosure of a forecast) in the form ln (p/1-p) rather than as a pure probability value. The object of the logit model is to find estimates of regression coefficients which maximise the log likelihood that the observed pattern of forecast disclosure would have occurred. Maximum likelihood

estimation is used to estimate logit parameters that imply the highest probability or likelihood of having obtained the observed sample. The variables CON and IND have more than two categories. The effect of these categories is calculated by reference to the average effect of all categories (rather than compared with a single category) (Norusis, 1994, p.13).

The variables, SIZE, MO and LBS are log-transformed for logit analysis to reduce skewness (to LNSIZE, LNMO and LNLBS).

The model chi-square goodness-of-fit statistic is calculated. Explained variation of the model is measured by McFadden's pseudo R^2. The significance level for each coefficient is measured using the Wald statistic which has a chi-square distribution.

In order to increase the number of cases analysed it was decided to test a reduced model excluding LBS which has a large number of missing values. Exclusion of LBS increases the number of cases analysed from 192 to 316 (out of a maximum of 701 cases). The models analysed are summarised as follows:

Full model: p(disclosure)　　　$= f$ (BID, BHOR, CON, MO, LBS, SIZE, QUOTED, IND, NAT)
Reduced model : p(disclosure)　$= f$ (BID, BHOR, CON, MO, SIZE, QUOTED, IND, NAT)

Table 7 shows that in the full model only two variables, BHOR and BID, are significant. As predicted, the probability of disclosure increases as bid horizon decreases and in contested bids. In the reduced model, in addition to BHOR and BID, CON and IND are significant. The probability of disclosure increases as bid horizon decreases, during contested bids and in paper bids. Conversely, a forecast is less probable in cash bids. A forecast is significantly more likely in the durable goods industry. Profits may be easier to forecast in this type of industry.

McFadden's R^2 disimproved from 34% in the full model to 22% in the reduced model. Both the full and reduced models are significant at conventional levels.

Table 7 Parameter estimates of logit regression of forecast disclosure

Explanatory variables	Full model including LBS		Reduced model excluding LBS	
	Regression coefficients	Wald[1]	Regression coefficients	Wald[1]
Intercept	-3.32	0.17	-2.02	4.65*
BHOR	-4.74	17.46**	-3.66	23.00**
BID	1.15	4.07*	1.01	5.82*
CON (Cash)[2]	-5.86	0.14	-1.32	6.17*
CON (Paper)[2]	2.85	0.13	0.95	7.26**
LNMO	0.17	0.74	-0.01	0.00
LNLBS	0.25	0.30		
LNSIZE	0.14	0.73	0.06	0.32
QUOTED	-1.15	0.59	-0.23	0.06
IND (Capital goods)[2]	-0.36	0.46	-0.31	0.60
IND (Durable goods)[2]	0.72	1.21	0.98	5.22*
IND (Non-durable goods)[2]	-0.17	0.12	-0.53	1.73
IND (Other)[2]	-0.58	1.11	-0.23	0.65
Model chi-square[3]	46.19 (d.f. 12) **		48.04 (d.f. 11)**	
McFadden's R^2 [4]	33.8%		22.3%	
Number of observations	192 cases		316 cases	

[1] The Wald statistic tests the null hypothesis that a coefficient is 0. It has a χ^2 distribution. ** Significant at ≤ 0.01; * Significant at ≤ 0.05

[2] The third purchase consideration dummy and the fifth industry dummy are captured in the intercept term.

[3] Model chi square is the difference between -2 log likelihood for the model with only a constant and -2 log likelihood for the current model. The model chi square tests the null hypothesis that the coefficients for all terms in the current model except the constant are 0. This can be used to test whether a set of predictors improves the fit of a model (McCullagh and Nelder, 1989: 118-119). Other goodness of fit statistics such as -2 log likelihood or the Hosmer-Lemeshow Goodness of Fit are not reported as SPSS does not print p-values for these because the assumptions underlying their chi-square approximation are rarely met in practice.

[4] This is 1 - (log likelihood at convergence/log likelihood with constant term only). It provides a measure of the explanatory power of the logit model and is similar to the R^2 value in OLS regression.

[5] A classification table to accompany this analysis is shown in Appendix 1

4.2 Influence of good news / bad news

Table 8 analyses deviations from market expectations (ME) for bidders between forecasters and nonforecasters. A forecast is disclosed in 16 cases (out of 121 - 13%) with positive deviations from expectations (POSME) and in 7 cases (out of 91 - 8%) with negative deviations (NEGME). However, chi-square statistics indicate that this difference in frequency is not significant.

Table 8 Analysis of deviation from market expectations variables		
	Forecasters	**Nonforecasters**
Positive market expectations	16 (70%)	105 (56%)
Negative market expectations	7 (30%)	84 (44%)
	23 (100%)	189 (100%)
Pearson chi-square 1.62 (d.f. 1) Significance 0.19		

Mann-Whitney U test results in Table 9 show that the mean rankings in deviation from market expectations overall, and of the negative subsample, are significantly different for forecasters and nonforecasters. In both cases, mean rankings are significantly higher where a forecast was disclosed. There is no significant difference in mean rankings for the positive deviations subsample.

Thus, for deviations of market expectations overall, the result indicates that a forecast is more likely the better the news. However, for the subset of firms with good news to disclose, the extent of good news does not appear to influence the disclosure decision. This is not the case with the negative sub-sample of firms. The results suggest that the worse the bad news, the less likely a forecast. In other words, when the bad news is very bad, a forecast is less likely. In summary, a forecast is more likely if there is good news to disclose or if the bad news to be disclosed is not too bad.

Table 9 Mann-Whitney U tests of differences in mean rankings between forecasters and nonforecasters for deviation from market expectations variables				
	Mean rank			**Two-tailed**
	Forecasters	**Nonforecasters**	**Z-statistic**	**probability**
Market expectations	135	103	-2.37	0.02*
Positive market expectations	70	60	-1.14	0.25
Negative market expectations	75	44	-3.06	0.00**
** Significant at ≤ 0.01 * Significant at ≤ 0.05				

Overall, these results provide evidence to support the hypothesis that forecast disclosure is more likely when firms have good news to disclose.

The logit models in Table 7 were re-run including the news variable ME. The variable was included in the models in two ways: the absolute value (ABSME) which measures the absolute difference between consensus analysts' forecasts and subsequent actual results. This tests whether the disclosure decision is influenced by variations from market expectations on their own. The models are also run including the signed value of ME which examines the combined influence of variations from market expectations and the news content of the variation. Only 107/184 cases are available for analysis in the full/reduced model.

Table 10 shows that the model including ABSME gives similar results to the models in Table 7. ABSME is not significant in the model, suggesting that variations from market expectations, on their own, are not influencing the disclosure decision.

However, the signed ME variable is highly positively significant in both the full and reduced models. This suggests that bidders are significantly more likely to disclose forecasts when there is good news to communicate.

Thus, in the context of takeover bids, the findings do not support the expectations adjustment hypothesis of Ajinkya and Gift (1984) that forecasts occur in cases in which good news adjustments are called for and in cases of bad news adjustments.

Table 10 Parameter estimates of logit regression of forecast disclosure including ABSME and signed ME variables

	ABSME				Signed ME			
	Full model including LBS		Reduced model excluding LBS		Full model including LBS		Reduced model excluding LBS	
Explanatory variables	Regression coefficients	Wald[1]	Regression Coefficients	Wald[1]	Regression coefficients	Wald[1]	Regression Coefficients	Wald[1]
Intercept	-2.43	0.03	-0.24	0.01	-0.63	0.00	-1.60	0.66
BHOR	-7.54	8.04**	-3.81	11.29**	-13.82	6.56*	-4.58	12.72**
BID	2.96	6.79**	1.42	5.91*	4.98	6.76**	1.75	7.62**
CON (Cash)[2]	-7.95	0.08	-1.68	4.99*	-15.72	0.21	-2.18	6.04*
CON (Paper)[2]	4.89	0.13	1.53	9.41**	9.84	0.33	1.89	10.85**
LNMO	0.05	0.02	-0.14	0.76	-0.07	0.04	-0.17	1.09
LNLBS	-0.36	0.15			-0.26	0.04		
LNSIZE	-0.14	0.13	-0.09	0.15	-0.52	1.05	-0.05	0.05
QUOTED	-4.20	2.96	-1.34	0.90	-9.05	5.09*	-0.87	0.34
IND (Capital goods)[2]	0.21	0.04	-0.96	2.16	0.86	0.48	-0.81	1.39
IND (Durable goods)[2]	1.37	1.67	1.25	3.49*	0.92	0.64	1.81	6.06*
IND (Non-durable goods)[2]	0.56	0.48	-0.27	0.21	0.46	0.23	-0.09	0.02
IND (Other)[2]	-0.40	0.24	-0.16	0.09	0.59	0.24	0.36	0.37
ABSME/ME	3.01	1.87	-0.47	0.07	7.02	6.78**	2.44	6.69**
Model chi-square[3]	38.07 (d.f. 13) **		41.23 (d.f. 12)**		49.03 (d.f. 13) **		48.12 (d.f. 12)**	
McFadden's R^2 [4]	58.2%		31.6%		61.9%		36.8%	
Number of observations	107 cases		184 cases		107 cases		184 cases	

[1] The Wald statistic tests the null hypothesis that a coefficient is 0. It has a χ^2 distribution.
  ** Significant at ≤ 0.01; * Significant at ≤ 0.05

[2] The third purchase consideration dummy and the fifth industry dummy are captured in the intercept term.

[3] Model chi square is the difference between -2 log likelihood for the model with only a constant and -2 log likelihood for the current model. The model chi square tests the null hypothesis that the coefficients for all terms in the current model except the constant are 0. This can be used to test whether a set of predictors improves the fit of a model (McCullagh and Nelder, 1989: 118-119). Other goodness of fit statistics such as -2 log likelihood or the Hosmer-Lemeshow Goodness of Fit are not reported as SPSS does not print p-values for these because the assumptions underlying their chi-square approximation are rarely met in practice.

[4] This is 1 - (log likelihood at convergence/log likelihood with constant term only). It provides a measure of the explanatory power of the logit model and is similar to the R^2 value in OLS regression.

[5] A classification table to accompany this analysis is shown in Appendix 1

As forecasts are often made very close to the year end, and sometimes cover only a short (say six month) period, it is questionable whether they add any value or disclose new information to the market. Quantitative forecasts disclosed were compared with consensus analysts' forecasts to examine the amount of 'new' information disclosed in the management forecast. As shown in Table 2 earlier, there were 66 forecasts by bidders in the sample. Table 11 analyses the forecasts by degree of quantification – whether point, range of not quantified. Of the 66 forecasts, 55 were quantified – 14 point forecasts and 41 range forecasts.

Table 11 Quantification of bidders' forecasts			
Quantification	**Voluntary**	**Involuntary /Repeat**	**Total No.**
Point	14	0	14
Range	37	4	41
Not quantified	2	9	11
	53	13	66

Pearson chi-square 32.83 (d.f. 2) Significance 0.00**

** Significant at < 0.01

Forecast deviations (FD) (comparison of the forecast with consensus analysts' forecast) for the quantitative forecasts were calculated. A comparison consensus analyst forecast was only available in 23 (42%) cases. There were 11 (48%) forecasts within +/- 5% of consensus analyst forecasts – i.e. with only a small amount of new information to disclose to the market. However, in 12 cases (52%) the deviation was greater than 5% of prevailing consensus analyst forecasts, suggesting that some forecasts do occur when there is new information to communicate and when good news/bad news adjustments are needed. Only 5 (22%) forecasts were +/- 10% of consensus analyst forecasts, of which only 2 were more than 20% greater.

The majority (16 – 70%) of forecasts in Table 12 are positive (good news) forecasts (i.e. forecast greater than prevailing market expectations as measured by consensus analyst forecasts). Nonetheless, there were 7 (30%) negative forecasts. This suggests that, although disclosure is influenced by good news, in some cases bad news may also be disclosed.

Table 12 Extent of new information in quantitative forecasts	
Negative forecast deviations	
Management forecast >10% lower than consensus analyst forecasts	1
Management forecast 5-10% lower than consensus analyst forecasts	2
Management forecast 0-5% lower than consensus analyst forecasts	4
Positive forecast deviations	
Management forecast 0-5% higher than consensus analyst forecasts	7
Management forecast 5-10% higher than consensus analyst forecasts	5
Management forecast 10-20% higher than consensus analyst forecasts	2
Management forecast >20% higher than consensus analyst forecasts	2
	23

4.3 Accuracy of forecasts

Although not a primary objective of this paper, the accuracy of forecasts is of interest, mainly because there is a widespread perception that forecasts may not be reliable. This is driven to a large extent by the substantial press coverage in cases where forecasts are not realised. For example, Sketchley, a target company which successfully beat off two hostile bids in 1990, forecast pre-tax profits of £6 million during both bids. Actual results amounted to losses of £2 million (£8.1 million after tax and extraordinary items). This event attracted pages of comment in the financial press. Conversely, there is little comment when a forecast is met, and maybe only one or two lines of comment where actual results substantially exceed the forecast.

Measuring the accuracy of forecasts disclosed during takeovers is difficult. Dev and Webb (1972), amongst others, have pointed to the non-comparability of forecast results with actual results after takeover. New managements are likely to adopt new operating policies and different accounting assumptions. In addition, they are unlikely to separately disclose the results of the companies taken over. Dev and Webb (1972) suggest that it is only when bids fail that forecast and actual profits are likely to be on a comparable basis, subject to the additional caveat that there is evidence that management may attempt to fit actual results to the forecast after the takeover (Ferris, 1975).

Actual results were only available from *Datastream* and / or *The Earnings Guide* in 26 (47%) cases. Reasons for unavailability of data include where the bidder is not a

UK company, where the forecast is for a period other than a year and where an unusual financial item such as a dividend or trading margin is forecast.

Results in Table 13 show that the forecast was met in all 26 cases. This is to be expected. Bidders, unlike target companies, control and choose the timing of the bid which is usually when the bidder is performing well. There were 17 (65%) forecasts within 5% of the subsequent actual results. In 4 (15%) cases, the forecast exceeded actual results by 5-10% and in 3 (12%) cases by 10-20%. In the case of two forecasts, actual results substantially exceeded the forecast. This may be due to forecast inaccuracy, or because the subsequent actual results are based on a different group composition (for example, including the target taken over).

Table 13 Accuracy of bidders' forecasts	
	No.
Data available	26
Data not available	<u>29</u>
Quantified forecasts	<u>55</u>
Level of accuracy	
Actual results less than forecast	0
Actual results 0-5% greater than forecast	17
Actual results 5-10% greater than forecast	4
Actual results 10-20% greater than forecast	3
Actual results 20% or more greater than forecast	<u>2</u>
	<u>26</u>

5. Comparison of forecast disclosure by bidders and targets

5.1 Differences in explanators of forecast disclosure between bidders and targets

Forecasts may be disclosed by bidders, targets or both parties during takeover bids. Motivations for disclosure by bidders and targets are compared and summarised in Table 14 which shows that they are quite different.

Table 14 Comparison of motivations for disclosure of forecasts by bidders and targets	

Bidders	**Targets**
Motivations in agreed bids	
• To support price of shares being offered to target shareholders as consideration for the target	• To support directors' recommendation to target shareholders to accept the bid .
• To support price of new shares issued to bidding company shareholders to raise cash to acquire the target	• Required by bidder to support information provided during bid negotiations.
• To put information into the public domain to enable it to be discussed privately	• To put information into the public domain to enable it to be discussed privately.
Motivations in contested bids	
• To support price of shares being offered to target shareholders as consideration for the target	• To persuade target shareholders that the bid price is inadequate
• To support price of new shares issued to bidding company shareholders to raise cash to acquire the target	• To persuade target shareholders that current management will run the company better than bidding company management
• To put information into the public domain to enable it to be discussed privately	• To signal that the target company is going to strongly defend the bid
• To persuade target shareholders that bidding company management will run the company better than current management	• To get an increase in the bid price
Source: Derived from Brennan (1998)	

Disclosure of forecasts by target companies has been examined in Brennan (1999). Explanators of disclosure for bidders and targets are summarised in Table 15. Similar to the findings for bidders in this paper, target companies were found to be significantly more likely to disclose a forecast during contested bids and, only in the case of agreed bids, where the bid horizon was lowest. In contested bids, large block shareholdings significantly increased the likelihood of a target company forecast. By contrast, purchase consideration was a significant factor in influencing disclosure by bidding companies.

For both bidders and targets, there was a clear tendency to disclose good news forecasts.

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┌─────────────────────────────────────────────────────────┐
│                                                         │
│   Table 15 Comparison of explanators of forecast disclosure │
│             between bidders and targets                 │
│                                                         │
├─────────────────────────────────────────────────────────┤
│                                                         │
│   Bidders                    Targets                    │
│   Type of bid*               Type of bid**              │
│   Bid horizon**              Bid horizon**[1]           │
│   Purchase consideration**                              │
│   Management ownership       Management ownership       │
│   Large block shareholdings  Large block shareholdings**[2] │
│   Size of firm               Size of firm*[2]           │
│   Listing status                                        │
│   Industry*                  Industry*[1]               │
│   Nationality                                           │
│   Good news**                Good news**                │
│                                                         │
│                                                         │
│   ** Significant at < 0.01; * Significant at < 0.05     │
│   [1] Agreed bids only                                  │
│   [2] Contested bids only                               │
│                                                         │
└─────────────────────────────────────────────────────────┘
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5.2 Interaction between bidders and targets in disclosing forecasts

There is a considerable amount of verbal jousting in takeover documents, especially during contested bids. In respect of profit forecasts, this can take two forms. Sometimes one side attacks the other for not disclosing a forecast to support assertions made in an earlier takeover document. For example, the extract below shows Grampian attacking Macarthy for not providing a forecast. However, shareholders in Macarthy were not convinced by this attack as Grampian's bid was not successful.

> "Macarthy has not given any clear information on its current trading and still has not published the interim results for the six months ended 31st March 1991. As shareholders, you must be wondering why your Board is unable or unwilling to provide any indication of the results for the current financial year and whether Macarthy's earnings per share in 1991 will reach even last year's level."

IMI, in its 1991 bid for Birmingham Mint, used the absence of a forecast to attack Birmingham Mint's dividend forecast.

> "- Despite claims of "*excellent prospects for the 1990's*" your board has failed to publish a profit forecast to justify this claim.
> - The forecast full year dividend of 6.5p is irresponsible. It will not be adequately covered by earnings and will further weaken the cash position.
> - There is no evidence to suggest that future dividends can be sustained at this level."

Alternatively, if there is disclosure, the forecast itself may be attacked. For example, target company Pleasurama attacked Mecca's forecast in 1988 for the calculation of growth rate in its forecast.

> **"MECCA'S GROWTH: 24 OR 10 PER CENT.?**
> Mecca forecasts growth in earnings per share of not less than 24 per cent. (before exceptional property profits). This forecast includes the one-off benefit from the timing of the acquisition of Ladbroke Holidays. The exclusion of 3 of Ladbroke Holidays' loss making winter months is estimated to have saved £1.5 million and **next year's results will bear the full impact of these losses.** Pleasurama estimates that if this benefit had not been available and financing for the acquisition had been in place for the full year, **the pro forma growth in earnings per share (before exceptional property profits) would have been less than 10 per cent.** (assuming that Mecca's profit forecast for the year ended 30th September 1988 is exactly achieved)."

General Motors based its attack on the use of misleading information in the forecast.

> "SD-Scicon multiplies its forecast profits by other software company price earnings multiples. This is misleading."

Table 16 examines forecast disclosure patterns for evidence of interaction between bidders and target firms and forecast disclosure. In 504 (77%) bids, no forecast was disclosed by either party to the bid. A forecast was disclosed by target companies in 114 (16%) of bids, while a forecast was disclosed by bidders only in 20 (3%) bids. In only 27 (4%) bids did both the bidder and target company disclose a forecast, suggesting that in only a small minority of cases does disclosure by one party to the bid prompt disclosure by the other party. There is a significant difference in disclosure patterns between agreed and contested bids. In contested bids forecast disclosure is more likely, particularly by target firms.

Table 16 Interaction of forecast disclosure by bidders and targets

Forecast disclosure	Agreed bids	Contested bids	Total
No forecast by either bidder or target	402	138	540
No forecast by bidder, forecast by target	49	65	114
Forecast by bidder, none by target	13	7	20
Forecast by both bidder and target	13	14	27
	477	224	701

Pearson chi-square 48.10 (d.f. 3) Significance 0.00**

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6. Summary and conclusions

This research is concerned with profit forecast disclosure by bidders during UK takeover bids. The very fact that there is a significant level of profit forecast disclosure during UK takeover bids, while there is little such disclosure in routine, periodical contexts, suggests intuitively that the major determinants in the decision to disclose profit forecasts during takeover bids are themselves takeover-specific.

Moreover, the fact that there is a general culture hostile to routine disclosure of profit forecasts in the UK suggests that bidders' general motivation will be to make no disclosure unless there are very attractive or compelling reasons. If disclosure of profit forecasts were a routine feature of company behaviour, a decision to make a forecast in a takeover situation would not require any particularly strong motivation. Conversely, if strong motivation is needed to overcome a general reluctance to disclose profit forecasts, one would intuitively expect to find this confirmed by statistical analysis.

Many bidders not normally disclosing profit forecasts were found to do so during takeover bids. Disclosure choices were dominated by the takeover context of the research. Two variables, type of bid and bid horizon, accounted for almost all the variation in disclosure.

Probability of forecast disclosure was greater the shorter the bid horizon and during contested bids. The closer the bid date to the forecast period end, the less risk of getting the forecast wrong. If the bid date is very close to the year end less work and management time is necessary to bring out a forecast. The finding that bid horizon was significantly shorter for forecasters is therefore to be expected.

It is not surprising that more profit forecasts are disclosed in the competitive environment of contested bids, when managements on both sides are defending their performance and are attacking the other side's performance. Disclosure in contested bids may be motivated by considerations of the direct effect of the information in the forecast and by other indirect effects of disclosure.

Purchase consideration was expected to be very influential on bidders' disclosure decisions. In cash bids, there seems little reason for bidders to disclose forecasts, and it is hard to see how forecasts by bidders would be influential except in exceptional circumstances. A forecast was only disclosed in four cash bids: either because shares were separately issued to raise cash for the bid or because of the contested nature of the bid.

Bivariate results shown in Tables 5 and 6 on the full sample are very different from multivariate results: Size, substantial shareholdings, listing status and nationality were significantly different in bivariate analysis for forecasters and nonforecasters, yet in multivariate analysis none of these variables were significant. This could be due to missing values resulting in omission of unquoted and foreign bidders from multivariate analysis. When the bivariate analysis is re-run using the same samples as in Table 7 (i.e. 192 / 316 cases) the bivariate and multivariate results are consistent.

6.1 Comparison with previous research findings

Ruland (1979), Cox (1985), Lev and Penman (1990), Clarkson, Kao and Richardson (1994) and Frankel, McNichols and Wilson (1995) (for utilities only) found size to be significantly different between forecasters and nonforecasters. No significant difference in size between the two groups was found by Waymire (1985). In the bivariate analysis in this study forecasting bidders were significantly smaller than nonforecasting bidders, contrary to expectations. This may be because bidders are generally large firms (on average larger than targets). In multivariate models size was not significant. Thus, once other factors were controlled for, size did not generally explain differences in forecasting.

Ruland, Tung and George (1990) found ownership structure to be the most important variable in multivariate analysis explaining voluntary disclosure of forecasts. There was no support for percentage management ownership as an explanation of forecast disclosure in this research.

The findings in this research for bid horizon are opposite to those in Waymire (1985). Waymire found that the forecast horizons for regular repeat forecasters were longer

than for nonrepeat forecasters. In addition, he found that earnings of repeat forecasters are significantly less volatile than nonrepeat forecasters. Waymire suggests that nonrepeat forecasters, with highly volatile earnings, disclose forecasts closer to the year end to reduce the risk of making an erroneous forecast. In this research, bid horizon for forecasters is, as one would expect, shorter than for nonforecasters.

6.2 Influence of news

Bivariate and multivariate results support the hypothesis that forecast disclosure is more likely when there is good news to report. Of the forecasts disclosed, more were good news forecasts although there were a sizeable minority of bad news forecasts.

These results must be interpreted with caution for two reasons. Firstly, there were only 212 cases available for analysis. Bidders tend to be larger firms, with PR departments, may be better at guiding market expectations through analysts' forecasts. Thus, market expectations are less likely to be out of line for bidders, who are less likely therefore to disclose a forecast.

6.3 Other issues

Analysis showed that all bidder forecasts were met. Actual results were generally within 10% of the forecast.

As motives for disclosure are quite different for bidders and targets, explanators of disclosure differed somewhat. For both bidders and targets, forecast disclosure is more likely in contested bids and with shorter bid horizons (in agreed bids only for targets). Purchase consideration is a significant influence on disclosure for bidders with more forecasts disclosed during paper bids. Large block shareholdings is an influence on disclosure for targets in contested bids. There is little evidence that disclosure of a forecast by one party is influenced by disclosure by the other party to the bid.

6.4 Suggestions for further research

This research focusses on what motivates management to disclose forecasts. A shareholder perspective is an alternative approach. Share price behaviour before/after takeovers could be examined to identify whether share prices differed where forecasts

were disclosed. There are difficulties, however, with share price studies. Share prices will not be available if the share quotation has been suspended during the takeover. There may be so many other events occurring during bids that it may be difficult to isolate share reactions as related specifically to disclosure of forecasts. Variability of newspaper coverage will also affect share prices.

Voluntary disclosure is one potential management response to valuation problems in public markets. Further research is needed to understand which voluntary disclosures are credible and how voluntary disclosure affects analyst and institutional investor interest in the firm. Usefulness to recipients of the information disclosed in profit forecasts, and the format of its disclosure, could be examined.

An additional issue to consider is whether analysts follow forecasts disclosed. The change in analysts' forecasts (including the direction of change) as a result of disclosure could be examined. If analysts' forecasts do not move toward managements' forecasts, would suggest that managements' forecasts are not useful.

Because the findings of the research are specific to the takeover context of the study and may not apply to nontakeover situations, future research might examine forecast disclosures in other contexts to re-examine some of these findings. The dominance of the takeover context on the results suggests that more research is needed to study disclosures in specialist settings.

NOTES

1. For example, for a year end of 31/12/1992, if the bid date is 23/12/1992 BHOR is + 9 days. If the bid date is 3/1/1993 BHOR is - 3 days.

2. In many cases, insufficient information was available in takeover documents to facilitate easy calculation of MO. Consequently, the information in *Crawford's Directory* was used, even though some changes in MO may have taken place between publication of the Directory and the date of takeover bids.

3. Correlations between industry groups are not reported in Table 4. As one would expect, these correlations are high.

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Appendix 1: Classification tables

	Table 7 Full model			Table 7 Reduced model		
	Predicted			**Predicted**		
Observed	**No.**	**No.**	**Percent correct**	**No.**	**No.**	**Percent correct**
No disclosure	165	5	97.06%	278	4	98.58%
Disclosure	<u>15</u>	<u>7</u>	31.82%	<u>29</u>	<u>5</u>	14.71%
	<u>180</u>	<u>12</u>	89.58% overall	<u>307</u>	<u>9</u>	89.56% overall
	Table 10 Full model signed ME			**Table 10 Reduced model signed ME**		
	Predicted			**Predicted**		
Observed	**No.**	**No.**	**Percent correct**	**No.**	**No.**	**Percent correct**
No disclosure	91	3	96.81%	160	3	98.16%
Disclosure	<u>4</u>	<u>9</u>	69.23%	<u>14</u>	<u>7</u>	33.33%
	<u>95</u>	<u>12</u>	93.46% overall	<u>174</u>	<u>10</u>	90.76% overall