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Voluntary Disclosure of Profit Forecasts by Target Companies in Takeover Bids

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Abstract

This paper examines factors influencing voluntary forecast disclosure by target companies, whether good/bad news forecasts are disclosed and the influence of forecasts on the outcome of hostile bids. Disclosure was significantly more likely during contested bids. In agreed bids, probability of forecast disclosure was greater the shorter the bid horizon. In contested bids, forecasts were more likely where there were large block shareholdings, for larger targets and for targets in the capital goods industry. There was a clear tendency to disclose good news forecasts. A significant positive association between forecast disclosure and increase in offer price was found.

Key words: voluntary disclosure, forecasts, targets, good/bad news, takeover defences

VOLUNTARY DISCLOSURE OF PROFIT FORECASTS BY TARGET COMPANIES IN TAKEOVER BIDS

NIAMH BRENNAN*

INTRODUCTION

Previous research in the US and UK has examined managerial behaviour during takeovers from a variety of perspectives. Few studies have examined the role accounting information plays in these situations and, in particular, managerial motives in disclosing information voluntarily during takeovers. Exceptions include US studies Grossman and Hart (1980 and 1981), DeAngelo, (1988 and 1990), Groff and Wright (1989) and Christie and Zimmerman (1994). Managerial behaviour in the UK may differ compared with the US because of differences in the regulatory environment and in the institutional ownership of shares.

Most prior research examines disclosure of accounting information in routine situations such as in annual reports (for example, Chow and Wong-Boren, 1987; and Cooke, 1989 and 1993), interim statements (Leftwich et al., 1981), with earnings announcements (Hoskin et al., 1986; Thompson et al., 1987; and Kasznik and Lev, 1995) and, more recently, during conference calls (Frankel et al., 1997).

Disclosure practices may differ in non-routine situations such as during takeover bids. For example, Gray et al. (1991) state

In the context of publishing non-periodic corporate reports such as takeover documents...there is often a stimulus to disclose additional information voluntarily. Such voluntary information provision appears to be especially common in the case of contested takeover bids.

This paper examines disclosure of profit forecasts by targets during UK takeover bids. The takeover setting is particularly interesting for three reasons. Firstly, takeovers are unique events for target companies - management behaviour in this unique setting is likely to be different from that in routine disclosure situations. Secondly, in takeover bids there are two primary audiences for target company disclosures - target shareholders and the other party to the bid. Thirdly, contested bids provide an opportunity to examine the effect on disclosure of the highly competitive situation between bidders, target management and target shareholders.

Forecasts are rarely disclosed by UK management except in new share issue

prospectuses and during takeover bids. It is not clear why management, who are clearly adverse to disclosing profit forecasts in routine circumstances, would do so during takeover bids. Motivations to disclose forecasts must be sufficiently strong to outweigh managements' general aversion to such disclosures.

This paper examines management decisions to voluntarily disclose a forecast or not. The influence on disclosure of type of bid, bid horizon, target firm managerial ownership, large block shareholders and industry is analysed. The influence of the news content of forecasts on disclosure and the effect of disclosure on outcome of bids in hostile takeovers is also examined.

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 (1995a).

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.

In the UK, target company forecasts (both voluntary and involuntary) must be reported on by independent accountants and the company's financial advisors. 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.

MOTIVATIONS FOR DISCLOSURE

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 (Gray et al., 1991), suggests intuitively that the major determinants in the decision to disclose profit forecasts during takeover bids are themselves takeover-specific. The fact that there

is a general culture hostile to routine disclosure of profit forecasts in the UK suggests that targets' general motivation will be to make no disclosure unless there are very attractive or compelling reasons. This raises the question as to why companies involved in takeovers would overcome aversion to disclosure and publish their profit forecasts.

Forecast disclosures are made in takeover documents sent to shareholders who are the primary audience for this information. Forecasts are normally made during takeover bids on a once-off basis to support arguments being put forward by directors. The nature of these arguments will differ depending on whether the bid is agreed (i.e. recommended by target firm directors) or is contested.

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.

Mørck et al. (1988) discuss two motives for takeover: disciplinary takeovers and synergistic takeovers. They provide evidence that synergistic takeovers are more likely to be friendly and disciplinary takeovers are more likely to be hostile. They argue that hostile and friendly targets are very different types of firms and that these characteristics influence whether the firm is more likely to be subject to a hostile or friendly bid.

Motivations for disclosure of forecasts during takeover bids will differ depending on whether the bid is agreed or contested. Disclosure is therefore analysed separately for these two categories of bid.

Motivations for disclosure in agreed bids

In agreed bids, the offer document is sent out by the bidders but contains information (such as profit forecasts) obtained from, and published with the approval of, target firms. There are at least two reasons why forecasts might be disclosed by target companies in

agreed bids:

The forecast may be used to justify the target directors' recommendation to shareholders to accept the offer. Such a forecast will be used to show that the price being offered by the bidder is adequate given the forecast of earnings. In so doing, the forecast may disclose poorer than expected or better than expected results.

In some cases disclosure of a profit forecast is a requirement of the bidder. Bidders may make it a condition of the bid price that target company directors underpin the earnings information given during bid negotiations by formally disclosing a profit forecast which must be reported on by accountants and financial advisors to the bid. The forecast in such cases acts as a form of reassurance of the terms of the bid for the bidder. The forecast is a validation of representations made in the course of negotiations with the bidder.

Motivations for disclosure in contested bids

In contested bids, target firms may issue one or more defence documents to shareholders, which may contain a profit forecast. Although these takeover documents are sent to target company shareholders, disclosures therein may also be intended for bidder company managements.

In contested bids, disclosure of profit forecasts is one of a number of defence tactics open to target companies (Sudarsanam, 1991 and 1995b). Such a defence tactic is a uniquely UK (and Commonwealth) phenomenon. Disclosure of a profit forecast represents one of the few actions managers can take without shareholder approval. Forecasts may be used by target company directors either to show that the shares are more valuable than the bid price or to show that target company management is better at running the company than bidder company management would be. It is also possible that disclosure of a forecast by target firms may be a signal to the bidder that target management intend to strongly resist the bid. Krinsky et al. (1988) argue that published financial forecasts might improve the market for corporate control. They conjecture that disclosure of forecasts could allow target management to search for "white knights" after a takeover bid is made.

There is evidence from Gray et al. (1991) that more forecasts are voluntarily disclosed during contested bids. Hostile bids are characterised by attacks on the performance of target management. Target managements defending their performance are attacked when they do not disclose a forecast to support their claims of good performance. Hostile bids are characterised as being disciplinary bids - ones that target management

will be motivated to defend. Target management will use whatever tactic is available to defend the bid. One such tactic is disclosure of a profit forecast.

Resistance to disclose forecasts outweighs motivations to disclose. Gray et al. (1991) obtained forecasts in only 19% of bids. Sudarsanam (1994), studying contested bids only, found that a profit forecast was disclosed in 45% of contested bids. Costs associated with disclosure are high. A primary concern is fear of getting the forecast wrong. This could result in loss of reputation for target company managers and their advisors, or worse, in litigation. In addition, making such forecasts is costly, particularly as they have to be reported on by the forecaster's accountants and financial advisors. In addition, considerable management time and resources are required in preparing these forecasts.

It is assumed in the takeover literature that publication of forecasts is a strategy in hostile takeovers that can influence the success or failure of bids, or that can lead to increased offers. Previous research has examined the effect of various defence strategies on the outcome of contested bids (Casey and Eddey, 1986; Jenkinson and Mayer, 1991; and Sudarsanam, 1994 and 1995b). This paper examines whether disclosure of a profit forecast is an effective weapon in defence of takeover bids. It augments the analysis of previous studies by extending the definition of outcome of bids to include whether the offer price was increased during the bid, as well as success/failure of bids.

PRIOR RESEARCH

This discussion of motivations to disclose/not disclose forecasts provides a background against which to examine specific factors that might be related to disclosure. Factors studied were suggested by prior studies of forecast disclosure and by the takeover context of the research.

Forecast disclosure

Most forecast disclosure studies have been based on routine voluntary disclosure of management earnings forecasts in the US. Early research examined whether there were systematic differences between forecasting and nonforecasting firms (Imhoff, 1978; Ruland, 1979; Cox, 1985; and Waymire, 1985). Forecasting firms were found to be systematically larger and to have less variable earnings than nonforecasting firms.

Motivations explored by previous research to account for forecast disclosure include raising finance, threat of competitor entry and in response to legal pressures. Forecast

reporting firms have a greater tendency than non-forecasting firms to issue new capital (Ruland et al., 1990; and Frankel et al., 1995). Clarkson et al. (1994) find that tests of the financing hypothesis are conditioned on the nature of the news (good or bad) possessed by the manager. For good news firms the probability of forecasting is increasing in the firm's financing requirements (and *vice versa* for bad news firms). Clarkson et al. (1994) also find that probability of forecasting decreases with threat of competitor entry.

Previous UK studies, by and large, have considered the topic of profit forecasts disclosed during takeover bids (Carmichael, 1973; Dev and Webb, 1972; and Westwick, 1972) and in new issue prospectuses (Ferris, 1975 and 1976; Keasey and McGuinness, 1991 and Firth and Smith, 1992) from the standpoint of accuracy of, and bias in, the forecasts.

Clarkson et al. (1992) examined disclosure of earnings forecasts in Canadian initial public offering (IPO) prospectuses. They found audit quality, underwriter prestige and terms of offering to be significantly different between forecasters and nonforecasters.

Bid horizon

A major concern of management (and of the advisors reporting on forecasts) is the risk of getting the forecast wrong. This risk lessens the closer the bid date to the year end of the forecaster. Evidence from the US suggests that the frequency of forecasts increases as the end of the reporting period approaches (McNichols, 1989). Waymire (1985) finds that firms with highly volatile earnings disclose forecasts closer to the year end to reduce the risk of making an erroneous forecast.

Forecasts are expected to be more likely the shorter the bid horizon (i.e. the period from the date of the bid to the year end date of the target). Bid horizon is expected to be more influential in agreed bids than in contested bids in determining whether a forecast is disclosed. In agreed bids the forecast is made to either encourage shareholders to accept the bid or to confirm earnings figures to the bidder. In long horizon situations, alternative methods of encouraging shareholders to accept the bid are available. The benefit of the forecast in underpinning the earnings information provided to the bidder during bid negotiations will need to be substantial to outweigh the risks of getting the forecast wrong.

Managerial ownership

There are two reasons why managerial ownership might influence disclosure of profit forecasts in takeover situations: (i) disclosure might reduce agency costs and (ii) in hostile bids managerial ownership determines the level of managerial entrenchment in targets which, if high, might obviate the need for a profit forecast as a defence mechanism.

Takeover bids provide a setting for analysing agency relationships since the best interests of the principal (shareholders) and agent (management) are often in conflict, particularly for target companies. Agency costs are likely to be particularly high during takeover bids. Target shareholders will be most concerned about the value of their shares whereas management may, depending on their share ownership, be concerned about their job prospects, their earnings post-takeover and the value of their shares. Voluntary disclosure of information is hypothesised to reduce agency costs by narrowing the information gap between outside shareholders and managers (Jensen and Meckling, 1976; and Fama, 1980).

Ruland et al. (1990) find, consistent with the predictions of agency theory, that the percentage voting stock owned by management was significantly lower for firms voluntarily disclosing earnings forecasts.

An additional agency relationship exists in agreed bids between target management and the bidder. As managerial ownership increases (and agency costs between the bidder and target management get larger), bidders need greater assurances about privately disclosed information during bid negotiations. One means of providing additional assurance to the bidder is by disclosure of profit forecasts, which are independently reported on by accountants/advisors. Thus, in some agreed bids more profit forecasts are expected with higher managerial ownership of targets.

Mikkelson and Partch (1989) and Mitchell and Lehn (1990) provide evidence that higher managerial ownership reduces the likelihood of hostile takeover bids. If management's holdings are not trivial, its tendering decision will affect the probability of bid success (Stulz et al., 1990). Thus, with higher management ownership, alternative defence mechanisms to hostile bids, such as disclosure of profit forecasts, are less necessary. Where their share ownership is sufficient to resist the bid, management are less likely to depend on disclosure of profit forecasts to defend the bid.

Large block shareholdings

The presence of large shareholdings is expected to have a positive effect on firm value by reducing agency costs (Jensen and Meckling, 1976; and Shleifer and Vishney, 1986). Empirical evidence supports this view (Agrawal and Mandelker, 1990; and Jarrell and Poulsen, 1987). Firms with higher concentrations of large shareholders are more likely to find disclosure of information privately to shareholders easier than firms with more dispersed shareholdings. Such firms can thus avoid public disclosure of information. Accordingly, firms with lower percentage large block shareholdings are expected to be more likely to disclose forecasts.

The presence of large shareholdings also influences the incidence of hostile takeovers so the findings may differ between agreed and hostile bids. Sudarsanam (1996) has found that initial block size has a significant impact on bid frequency and the mood of takeover bids, whether friendly or hostile. Smaller toeholds make bids less likely, but hostile bids more likely. Shivdasani (1993) finds that ownership by 5% blockholders is not a significant determinant of the likelihood of a hostile takeover, although ownership by blockholders with no significant ties to management significantly raises the likelihood of a hostile takeover attempt. Shivdasani (1993) suggests that this shows that unaffiliated blockholders play an important role in facilitating takeover bids.

Size of firm

There are various reasons why size might be related to disclosure. 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.

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.

Ruland (1979), Cox (1985), Lev and Penman (1990), Clarkson et al. (1994) and Frankel et al. (1995) (for utilities only) found forecasters to be significantly larger than nonforecasters. No significant difference in size between the two groups was found by Waymire (1985).

Various motives are put forward to explain takeovers (Powell, 1997). Firms may be acquired for their growth prospects or firms may be acquired for reasons of synergy such as product innovation and technology. Such firms being purchased for technological synergy rather than for their earnings are expected to be smaller. Profit forecasts in smaller firms are expected to be less important than in larger firms which are being bought for assets and earnings.

Smaller firms are more likely to be family controlled. It is more difficult to acquire such firms because of managerial entrenchment. A profit forecast as a defence is less important in these situations. Smaller firms in hostile bids are expected therefore to publish fewer profit forecasts.

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 - Jaggi (1978) found forecast accuracy to be related to industry.

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

Forecast disclosure = f (Type of bid, Bid horizon, Management ownership,
Large block shareholdings, Size of firm, Industry)

Influence of good news / bad news

The empirical evidence of the role of good news in motivating forecast disclosure is mixed (includes disclosure of bad news) and seems to depend on the time period of the study and on the type of forecasts studied (point or narrow range forecasts versus more qualitative forecasts). Patell (1976), Penman (1980) and Lev and Penman (1990) find firms with good news appear more willing to reveal their forecasts. Results are based on average figures and a number of bad news forecasts were found in the samples. Ajinkya and Gift (1984), Waymire (1984) and McNichols (1989) show that incentives exist for management to disclose both good and bad news; thereby implying a relatively full symmetric disclosure of private information on a voluntary basis. Consistent with these findings, Ruland et al. (1990) found no significant differences between errors in analysts' forecasts for forecasting and nonforecasting firms. Consequently, they do not support the hypothesis that managers primarily release good news.

Baginski et al. (1994), Pownall et al. (1993), Skinner (1994) and Frankel et al. (1995) focused more on bad news disclosures and on different types of forecast disclosures. They provide evidence that firms are more likely to disclose bad news than good news.

This paper examines whether forecasts disclosed contain good news or bad news. 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 (Ajinkya and Gift (1984; Ruland et al., 1990; and Skinner, 1994). The special context of takeover bids may add insights to our understanding. The study includes qualitative as well as quantitative upper/lower bounded, point and range forecasts. Many US studies of forecast disclosure include only point or range forecasts.

Forecasts as defence weapons

Disclosure of profit forecasts has long been considered an effective defence strategy, but empirical evidence has not supported this conjecture. Although prior research finds disclosure of profit forecasts to be one of the most popular methods of defence, evidence on its effectiveness is weak.

Target companies defending against hostile bids have a wide variety of potential defence strategies from which to choose (Jenkinson and Mayer, 1991; and Sudarsanam, 1991).

Using an in-depth, case study approach, Jenkinson and Mayer (1991) found that there was very little relation between the success of defence and the type of defence employed. However, they found a clear pattern when they distinguished between different classes of bid. In the case of paper or mixed consideration offers, the nature of the defence put up by the target is of crucial importance. Most firms in these non-cash bids succeeded in repelling the bidder.

Sudarsanam (1994) reports the results of a survey of takeover defence strategies in 238 contested bids for UK public companies during 1983 -1989. Profit forecasts were the most commonly used defence (45% of targets made a profit forecast) after 'knocking copy' (i.e. attack of bid terms). Sudarsanam found that only four of the 23 defence strategies identified in the research contributed to a successful defence. Surprisingly, profit forecasts made a slightly negative impact on bid defence. He suggests that profit forecasts do not cover a long period ahead and, thus, do not provide substantial new

information to target shareholders. In addition, they are not highly regarded by investment managers, and the scepticism with which they are received may have blunted their effectiveness as a defence strategy.

This paper examines the influence of disclosure of forecasts on the outcome of hostile bids. In previous research outcome has been defined as success/failure of bids. This paper extends this definition to include outcome defined as increase/no increase in offer price.

Other factors are expected to influence outcome of bids. Mikkelson and Partch (1989), Cotter and Zenner (1994) and Sudarsanam (1995b) examined the relationship between managerial ownership and outcome of takeover bids. There are two conflicting arguments which suggest a relationship between ownership of target firms by management and the outcome of bids. On the one hand, a large holding of shares in the target will encourage management to resist bids to get a higher price for the shares. Management's objective is for the bid to succeed at the best possible price. On the other hand, if managers resist the bid to protect their employment in the target, and entrenchment is management's motivation, a large management shareholding will facilitate defeat of the bid.

Pound (1988) and Sudarsanam (1995b) have examined the relationship between large shareholdings and proxy contests/takeover bids respectively. The expected direction of influence is unclear. The complex reasons for this are discussed in Pound (1988). Large shareholders may maintain strategic alliances with management or may be swayed by their relationships with existing management. Alternatively large shareholders may take the line of least resistance and sell their shares.

The model of the influence of forecast disclosure on outcome of bids controls for these two factors: Managerial ownership and large block shareholdings

DATA AND METHODOLOGY

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 this 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 the 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 analysis of forecast disclosure, 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

	<u>Agreed bids</u>	<u>Contested bids</u>			<u>Total</u>
		<i>Hostile</i>	<i>Competing</i>	<i>White knight</i>	
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%)
	<u>477 (100%)</u>	<u>160 (100%)</u>	<u>49 (100%)</u>	<u>15 (100%)</u>	<u>701 (100%)</u>

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.

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, targets or their financial advisors.

Forecast disclosure - variables

The primary 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 target. 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. In the logit models 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; and McNichols, 1989). As this cannot be calculated for nonforecasters, the horizon for forecasters and nonforecasters has not been compared in most prior research.

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

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.³

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.

Good news/ bad news

Following Clarkson et al.'s (1994) 'mechanical' approach News in the forecast (NEWS) is measured as the difference between forecast results and previous year's actual results, scaled by previous year's results.

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:

Both variables are analysed between good news (GOODNEWS/POSFD) and bad news (BADNEWS/NEGFD), depending on whether the difference between the forecast results and previous year's actual results/analysts' forecasts is greater than/less than or equal to zero.

Outcome of bids

Outcome of bids is measured in two ways. Success of bid (SUC) is a dummy variable with the value 1 for successful bids and 0 for failed bids - this analysis is available in *Acquisitions Monthly*. Increase in offer price (I.OFFER) is also a dummy variable with the value 1 where there has been an increase and 0 for no increase. Whether or not offers increased were obtained from *Acquisitions Monthly* and from whether increased offer documents were issued.

RESULTS

Results are examined around three issues. First, forecast disclosure is analysed. Thereafter, news content of forecasts disclosed is examined to see whether targets have a tendency to disclose good or bad news. Lastly, the influence of forecast disclosure on the outcome of bids is analysed.

Forecast disclosure

There were 141 forecasts disclosed voluntarily by target companies (20% out of 701).

Summary descriptive statistics for all continuous variables are shown in Table 2. The mean BHOR from the date of the bid to the following year end date is 119 days in the case of agreed bids and a somewhat shorter 103 days in contested bids. This suggests that contested bids are more likely to occur where the period since the target last reported results is longest. MO is 28.3% in agreed bids. Consistent with the findings of Mørck et al. (1988), Mikkelsen and Partch (1989) and Mitchell and Lehn (1990), MO is much lower at 8.11% in contested bids. LBS is similar at 30% in agreed bids and 27% in contested bids. SIZE is much lower in agreed bids with a mean target company turnover of £189 million compared with £569 million in contested bids.

SIZE is highly positively skewed, as is, to a lesser extent, MO (for contested bids only). Missing values are a problem with some variables, especially LBS which is missing in 47% of cases.

Table 2

Panel A: Agreed bids							
<i>Variable</i>	<i>Mean</i>	<i>Median</i>	<i>Skewness</i>	<i>Standard</i>	<i>No.</i>	<i>Missing</i>	<i>Total</i>
BHOR (days)	119	122	-0.20	111	452	25 (5%)	477
MO (%)	28.3	23.0	0.48	24.8	443	34 (7%)	477
LBS (%)	29.6	24.2	1.02	21.7	289	188 (39%)	477
SIZE (£m)	189	19	19.82 ¹	1,784	448	29 (6%)	477
Panel B: Contested bids							
BHOR (days)	103	93	0.17	107	222	2 (1%)	224
MO (%)	8.11	2.36	2.04 ¹	12.33	206	18 (8%)	224
LBS (%)	26.5	25.9	0.85	17.7	165	59 (26%)	224
SIZE (£m)	569	79	11.79 ¹	3,263	218	6 (3 %)	224
¹ These values (compared with values given in tables by Kanji (p. 43, 1993) would indicate that the							

As Table 2 shows, some of the variables are highly skewed and assumptions of normality are inappropriate. Consequently, nonparametric bivariate statistical tests (which require few assumptions about the form of distribution of the variables) are reported in this paper.

Spearman bivariate correlations for all independent variables are shown in Table 3. Only one correlation is greater than 0.40 (Agreed bids: MO - LBS 0.56), and only two are greater than 0.30 (Contested bids: SIZE - DFIN 0.39; MO - SIZE 0.33). Thus there appear to be few highly correlated independent variables in the sample.

Table 3
Bivariate Spearman correlations for independent variables

Panel A: Agreed bids								
	<i>MO</i>	<i>LBS</i>	<i>SIZE</i>	<i>DCAP GDS⁴</i>	<i>DDURG DS⁴</i>	<i>DNON DUR⁴</i>	<i>DOTHER⁴</i>	<i>DFIN⁴</i>
BHOR	0.01	0.05	0.05	0.06	0.02	0.03	-0.06	-0.05
MO		-0.56**	-0.18**	-0.04	0.13*	0.13*	-0.05	-0.19**
LBS			-0.01	-0.11	-0.04	-0.00	0.02	0.13*
SIZE				0.17	-0.02	-0.04	0.03	-0.15**
Panel B: Contested bids								
BHOR	-0.02	-0.09	0.09	-0.06	0.04	-0.00	0.00	0.02
MO		-0.01	-0.33**	0.07	0.13	-0.05	-0.07	-0.08
LBS			-0.24**	-0.06	-0.02	-0.04	-0.05	-0.23**
SIZE				-0.01	-0.00	0.18*	0.11	-0.39*
* Significant at < 0.05 ** Significant at < 0.01 Number of cases varied depending on availability of data on each pair of variables								

Table 4 reports Mann-Whitney U test results of differences in mean rankings of the continuous variables of forecasting and nonforecasting firms. For agreed bids, Mann-Whitney mean rankings show that targets differ significantly on only one continuous variable - BHOR. The mean ranking for BHOR is significantly lower for forecasting firms. The difference in mean rankings of SIZE is significant at the 6% level, with that of forecasting firms higher than for nonforecasting firms. In contested bids, the mean ranking for SIZE is significantly higher for forecasting targets. BHOR is not significantly different in contested bids between forecasters and nonforecasters. These relationships are all in the directions predicted.

Table 4
Mann-Whitney U tests of differences in mean rankings between
forecasters and nonforecasters for each continuous independent variable

Panel A: Agreed bids				
	<i>Mean rank</i>		<i>Z-stat.</i>	<i>Two-tailed prob.</i>
	<i>Forecasters</i>	<i>Nonforecasters</i>		
BHOR	135	241	-5.90	0.00**
MO	205	225	-1.10	0.27
LBS	142	145	-0.23	0.82
SIZE	255	220	-1.90	0.06
Panel B: Contested bids				
BHOR	114	110	-0.42	0.67
MO	98	106	-0.95	0.34
LBS	89	80	-1.25	0.21
SIZE	135	96	-4.39	0.00**
** Significant at < 0.01				

Analysis of categorical variables between forecasters and nonforecasters is summarised in Table 5. As predicted, the frequency of forecast disclosure by targets is significantly greater during contested bids. Of the 141 voluntary forecasts, 62 were disclosed during agreed bids and 79 during contested bids. Thus, a forecast was disclosed in only 13% of all agreed bids, whereas one was disclosed in 35% of all contested bids. This is a lower frequency of disclosure than in Sudarsanam (1994) who obtained a forecast in 45% of contested bids. This may be accounted for by a different sample period (1983 - 1989).

There is no significant difference in IND between forecasters and nonforecasters for both agreed and contested bids. There are a large number of missing values on this variable - 14% in agreed bids and 9% in contested bids.

Table 5
Differences in categorical variables between
forecasting and nonforecasting targets

Panel A: Bid		
	<u>Forecasters</u>	<u>Nonforecasters</u>
	<i>No.</i>	<i>No.</i>
Agreed	62 (44%)	415 (74%)
Contested	<u>79</u> (<u>56%</u>)	<u>145</u> (<u>26%</u>)
	<u>141</u> (<u>100%</u>)	<u>560</u> (<u>100%</u>)
Pearson chi-square 47.05 (d.f. 1) Significance 0.00**		
Panel B: Industry - Agreed bids		
Capital goods	11 (25%)	68 (19%)
Durable goods	6 (10%)	62 (18%)
Non-durable goods	15 (30%)	91 (26%)
Banks and financial	5 (27%)	62 (20%)
Other	<u>16</u> (<u>8%</u>)	<u>72</u> (<u>17%</u>)
	53 (<u>100%</u>)	355 (<u>100%</u>)
Missing values	<u>9</u>	<u>60</u>
	<u>62</u>	<u>415</u>
Pearson chi-square 5.14 (d.f. 4) Significance 0.27		
Panel C: Industry - Contested bids		
Capital goods	21 (28%)	23 (18%)
Durable goods	7 (10%)	18 (14%)
Non-durable goods	23 (31%)	43 (33%)
Banks and financial	5 (7%)	21 (19%)
Other	<u>18</u> (<u>24%</u>)	<u>25</u> (<u>16%</u>)
	74 (<u>100%</u>)	130 (<u>100%</u>)
Missing values	<u>5</u>	<u>15</u>
	<u>79</u>	<u>145</u>
Pearson chi-square 7.14 (d.f. 4) Significance 0.13		
** Significant at < 0.01		

Two multivariate models are tested in this paper: the full model and a reduced model excluding LBS as this variable has a large number of missing values. Exclusion of LBS increases the number of cases analysed from 249 to 361 for agreed bids (out of a maximum of 477 cases) and from 150 to 186 for contested bids (out of a maximum of 224 cases). The models analysed are summarised as follows:

Full model: $p(\text{disclosure}) = f(\text{BHOR}, \text{MO}, \text{LBS}, \text{SIZE}, \text{IND})$

Reduced model: $p(\text{disclosure}) = f(\text{BHOR}, \text{MO}, \text{SIZE}, \text{IND})$

Logistic regression (logit analysis) was used to analyse the dichotomous dependent variable: disclosure/nondisclosure of a forecast. 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. For the variable IND which has more than two

categories, categories are calculated by reference to the average effect of all categories rather than compared with a reference category (Norusis, 1990).

As the distribution of SIZE and MO are skewed, these variables and LBS are log-transformed for logit analysis to reduce skewness (to LNMO, LNLBS and LNSIZE).

The model chi-square goodness of fit measure 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.

Agreed bids

Logit results of the full model for agreed bids are reported in Table 6. Consistent with the bivariate analysis, only one variable is significant: BHOR. As predicted, the probability of disclosure increases as bid horizon decreases. Percentage management ownership, large block shareholdings, size and industry do not seem to influence forecast disclosure.

Excluding the variable LBS in the reduced model improves McFadden's R^2 from 13.50 % to 15.00%. Both the full and reduced models are significant at conventional levels.

Thus, in the case of agreed bids the risk involved in making a forecast seems to be the strongest influence on disclosure. Forecasts, as predicted, are only disclosed when the risk is lowest - when the period from the date of the forecast and the forecast period end date is lowest.

Table 6
Parameter estimates of logit regression - Agreed bids

<i>Explanatory variables</i>	<i>Full model including LBS</i>		<i>Reduced model excluding LBS</i>	
	<i>Regression coefficients</i>	<i>Wald¹</i>	<i>Regression coefficients</i>	<i>Wald¹</i>
Intercept	-1.44	4.67*	-1.51	9.97**
BHOR	-2.87	16.36**	-3.28	27.80**
LNMO	-0.04	0.12	-0.09	1.20
LNLBS	0.19	0.37		
LNSIZE	0.13	1.02	0.13	1.59
IND - Capital goods	0.41	1.07	0.11	0.09
IND - Durable goods	-0.34	0.40	-0.23	0.31
IND - Non-durable goods	0.45	1.57	0.33	1.14
IND – Other	0.50	1.72	0.55	3.24
Model chi-square ²	26.81 (d.f. 8)**		42.46 (d.f. 7) **	
McFadden's R ^{2 3}	13.50%		15.00%	
Number of observations	249 cases		361 cases	

Notes:

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 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 use to test whether a set of predictors improves the fit of a model (p. 118-119, McCullagh and Nelder, 1989).

³ 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 R² value in OLS regression.

Contested bids

Results for contested bids are reported in Table 7. In the full model LBS is significant. The probability of disclosure increases as LBS increases. This is contrary to expectations. When LBS is excluded, size and industry become significant. Disclosure is significantly more likely for larger firms and in the capital goods industry.

McFadden's R² is not as good for the analysis of contested bids compared with agreed bids. Excluding the variable LBS in the reduced model disimproves McFadden's R² from 7.89% to 6.31%. Both models are significant at conventional levels.

Thus, results of the analysis of factors influencing forecast disclosure are not as clear for contested bids. Bid horizon and percentage management ownership of targets do not appear to influence forecast disclosure. Contrary to expectations, forecast disclosure is significantly more likely the higher the percentage large shareholders. In addition, there is evidence that larger targets in contested bids are also more likely to disclose a forecast - this is consistent with the bivariate results reported earlier. Also, firms in the capital goods industry are significantly more likely to disclose a forecast during contested bids.

Table 7
Parameter estimates of logit regression - Contested bids

<i>Explanatory variables</i>	<i>Full model including LBS</i>		<i>Reduced model excluding LBS</i>	
	<i>Regression coefficients</i>	<i>Wald</i>	<i>Regression coefficients</i>	<i>Wald</i>
Intercept	-0.50	0.59	-1.70	10.89**
BHOR	0.77	1.38	0.26	0.21
LNMO	-0.05	0.29	-0.04	0.27
LNLBS	0.74	7.89**		
LNSIZE	0.17	1.63	0.22	4.93*
IND - Capital goods	0.58	2.57	0.66	4.39*
IND - Durable goods	-0.08	0.04	-0.20	0.23
IND - Non-durable goods	-0.11	0.11	-0.07	0.06
IND - Other	0.34	0.84	0.17	0.27
Model chi-square	15.17 (d.f. 8)*		15.48 (d.f. 7)*	
McFadden's R ²	7.89%		6.31%	
Number of observations	150 cases		186 cases	

Influence of good news / bad news

Table 8 examines target forecasts by their news content. Both qualitative and quantitative forecasts are included. News content is analysed into three categories for the purposes of this table: Good news - forecast results greater than previous year's results; Bad news - forecast results less than previous year's results; Neutral news - forecast results the same as previous year's results. This analysis could only be done for 129 out of 141 forecasts as prior year results were not available for the remaining cases.

Most forecasts (88 - 68%) are classified as good news, with a considerably smaller number (36 - 28%) of bad news forecasts. There is a significant difference between the quantification of forecasts and their news content. Good news forecasts are predominantly point and range forecasts. Bad news forecasts are either range forecasts or qualitative. A large proportion of bad news/neutral news forecasts are qualitative.

Table 8
Qualitative and quantitative forecasts analysed by news content

	<i>Good news</i>	<i>Bad news</i>	<i>Neutral news</i>	<i>Total</i>
Qualitative forecasts	9 (10%)	13 (36%)	4 (80%)	26 (20%)
Range forecasts	49 (56%)	18 (50%)	1 (20%)	68 (53%)
Point forecasts	<u>30</u> (<u>34</u> %)	<u>5</u> (<u>14</u> %)	<u>0</u> (<u>0</u> %)	<u>35</u> (<u>27</u> %)
	<u>88</u> (<u>100</u> %)	<u>36</u> (<u>100</u> %)	<u>5</u> (<u>100</u> %)	<u>129</u> (<u>100</u> %)
Pearson chi-square 24.20 (d.f. 4) Significance 0.00**				
** Significant at < 0.01				

The news content variables are analysed between agreed and contested bids in Table 9. The NEWS variable could only be calculated for 114 out of 141 forecasts - for some

qualitative forecasts NEWS was difficult to calculate. The FD variable could only be calculated where analysts' forecasts for the target were reported in the *Earnings Guide*. This information was only available for 89 out of 141 forecasts.

Only 27 (24%) out of a total of 114 readings for NEWS are classified as bad news. Only 38 (43%) out of a total of 89 readings for FD are classified as negative deviations. Thus, as predicted, there are more good news/positive deviation forecasts than bad news/negative deviation forecasts.

There is no significant difference in the news content between agreed and contested bids for the variable NEWS (i.e. when news in forecasts is measured by reference to previous results). However, the frequency of POSFD is significantly greater during contested bids and the frequency of NEGFD is significantly greater during agreed bids. This suggests that during contested bids firms are more likely to disclose good news forecasts (compared with consensus analysts' forecasts).

Table 9
Analysis of news content variables between
contested and agreed bids

	<i>Agreed</i>	<i>Contested</i>
GOODNEWS	28 (70%)	59 (80%)
BADNEWS	<u>12</u> (30%)	<u>15</u> (20%)
	<u>40</u> (100%)	<u>74</u> (100%)
Pearson chi-square	1.36 (d.f. 1) Significance 0.24	
POSFD	9 (36%)	42 (66%)
NEGFD	<u>16</u> (64%)	<u>22</u> (34%)
	<u>25</u> (100%)	<u>64</u> (100%)
Pearson chi-square	6.45 (d.f. 1) Significance 0.01*	
* Significant at < 0.05		

Thus, to summarise, a tendency to disclose good news is found in the form of more good news forecasts. Good news forecasts (compared with prevailing market expectations as measured by analysts' forecasts) are significantly more likely in contested bids.

Forecasts as defence weapons

Table 10 analyses disclosure of forecasts by targets and the outcome of 160 hostile bids. No association was found between forecast disclosure and success/failure of bids. Thus, disclosure of forecasts by targets appears to make no difference to the success/failure of bids.

However, consistent with the anecdotal evidence that profit forecasts are an important plank of defence, the analysis shows that forecasts in hostile bids are associated with increases in offer price. An increase in offer price is significantly more likely where a forecast has been disclosed.

Table 10
Analysis of outcome of hostile bids by
forecast disclosure

Panel A:		
	<i>Successful</i>	<i>Failed</i>
No forecast	47 (59%)	41 (51%)
Forecast	<u>33</u> (<u>41%</u>)	<u>39</u> (<u>49%</u>)
	<u>80</u> (<u>100%</u>)	<u>80</u> (<u>100%</u>)
Pearson chi-square 0.91 (d.f. 1) Significance 0.34		
Panel B:		
	<i>Increased offer</i>	<i>No increase</i>
No forecast	15 (35%)	73 (62%)
Forecast	<u>28</u> (<u>65%</u>)	<u>44</u> (<u>38%</u>)
	<u>43</u> (<u>100%</u>)	<u>117</u> (<u>100%</u>)
Pearson chi-square 19.61 (d.f.1) Significance 0.00**		
** Significant at < 0.01		

As indicated earlier, factors other than disclosure of a forecast may influence outcome of bids. Two factors in particular were discussed - management ownership and large block shareholdings. In addition, size of firms and industry are included in multivariate analysis for control purposes.

Tables 11 and 12 report multivariate logistic regression results of the models shown below. As there are a large number of missing values on the variable LBS, the analysis was re-run excluding LBS (which is not significant in the models). This increases the cases available for analysis from 107 to 135.

Full model: $p(\text{Success}) = f(\text{F, SIZE, MO, LBS, IND})^5$

Reduced model: $p(\text{Success}) = f(\text{F, SIZE, MO, IND})^5$

Full model: $p(\text{Increased offer}) = f(\text{F, SIZE, MO, LBS, IND})^5$

Reduced model: $p(\text{Increased offer}) = f(\text{F, SIZE, MO, IND})^5$

Multivariate results support the bivariate analysis reported in Table 10. Table 11 shows that none of the variables tested are related to success/failure of bids. The models are not significant and their explanatory power is low.

Table 11 Parameter estimates of logit regression of models of success/failure of bids				
<i>Explanatory variables</i>	<u><i>Full model including LBS</i></u>		<u><i>Reduced model excluding LBS</i></u>	
	<i>Regression coefficients</i>	<i>Wald</i>	<i>Regression coefficients</i>	<i>Wald</i>
Intercept	0.25	0.09	-0.20	0.16
F	-0.13	0.96	0.10	0.07
LNSIZE	-0.04	0.64	0.01	0.01
LNMO	0.10	0.91	0.08	0.86
LNLBS	-0.02	0.01		
IND - Capital goods	-0.38	0.84	-0.51	1.85
IND - Durable goods	-0.16	0.12	0.02	0.00
IND - Non-durable goods	-0.21	0.37	-0.09	0.08
IND - Other	-0.04	0.01	0.16	0.23
Model chi-square	4.55 (d.f. 10)		2.90 (d.f. 9)	
McFadden's R^2	3.07%		1.55%	
Number of observations	107 cases		135 cases	

Table 12 reports logit results where outcome is defined as offer prices increased/not increased. The results support bivariate findings in Table 10 of a relationship between disclosure of forecasts and increase in offer prices. Disclosure of a forecast is significantly related to increased offer prices in both models. Increased offer prices are more likely in hostile bids, where a forecast has been disclosed.

Industry also influences whether the bid price increased. An increase is significantly less likely in the non-durable goods industry and significantly more likely in other industries. Both models are significant. The explanatory power of the models as measured by McFadden's R^2 is around 15%.

Table 12
Parameter estimates of logit regression of bids where offer was increased/not increased

<i>Explanatory variables</i>	<u><i>Full model including LBS</i></u>		<u><i>Reduced model excluding LBS</i></u>	
	<i>Regression coefficients</i>	<i>Wald</i>	<i>Regression coefficients</i>	<i>Wald</i>
Intercept	-1.61	2.58	-2.04	9.45**
F	1.01	4.07*	1.20	6.98**
LNSIZE	0.08	0.24	0.11	0.71
LNMO	-0.05	0.17	0.00	0.00
LNLBS	0.07	0.04		
IND - Capital goods	-0.20	0.18	-1.38	0.78
IND - Durable goods	-0.20	0.13	-0.14	0.07
IND - Non-durable goods	-0.99	4.67*	-0.79	3.82*
IND - Other	1.22	7.96**	1.28	10.94**
Model chi-square	19.37 (d.f. 10)*		24.69 (d.f. 9)**	
McFadden's R ²	15.03%		15.22%	
Number of observations	107 cases		135 cases	

Sudarsanam (1995b) found a significant negative relationship between size and bid success. In this research there was no association between success/failure of bids and target size. The finding of no association between outcome of bids and management ownership is consistent with Mikkelsen and Partch (1989) and Sudarsanam (1995b). The finding of no association between outcome of bids and large shareholdings is inconsistent with prior research. Pound (1988) finds that higher levels of institutional ownership are associated with lower probability of dissident victory in proxy contests. Sudarsanam (1995b) finds the presence of institutional shareholders reduces the probability of successful bid defences. The variation in results in this paper may be due to variations in measurement of the variable. Sudarsanam's measure is of all holdings of more than 5% held by financial institutions; this research includes all holdings of more than 5% regardless of whether owned by financial institutions.

SUMMARY AND CONCLUSIONS

This paper analyses factors that help explain management decisions to publish profit forecasts during UK takeover bids.

Forecast disclosure

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 on, say, offer price and by other indirect effects of disclosure.

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

In the case of contested bids large block shareholdings was significant. Contrary to predictions, the probability of forecast disclosure increased as large block shareholdings increased. There is also some evidence that in contested bids firm size and industry are related to disclosure.

Results of bivariate and multivariate analysis are consistent for agreed bids but are very different in contested bids. Bivariate analysis suggests that large block shareholdings is not significantly different for forecasting and nonforecasting targets in contested bids, while the variable differs significantly between forecasters and nonforecasters in multivariate analysis. The discrepancy in findings between bivariate analysis and multivariate analysis may be explained by. The most obvious explanation, correlations between the independent variables, is not supported by Spearman correlations reported in Table 3. With few exceptions, correlations between independent variables were not high.

Influence of good news/ bad news

This research finds evidence of voluntary disclosure bias in favour of good news forecasts. A tendency to disclose good news was observed, although there was evidence of disclosure of bad news in some forecasts.

Similar to the findings in Skinner (1994), the degree of quantification of forecasts was related to news content. Bad and neutral news forecasts are more likely to be qualitative or range forecasts; more good news forecasts were point estimates. Good news forecasts are significantly more likely in contested bids and bad news forecasts are significantly more likely in agreed bids.

In conclusion, these results provide evidence supporting the hypothesis that forecast disclosure during takeovers is more likely when market expectations are pessimistic and where actual results exceed expectations. Forecasts disclosed tended to be good news forecasts.

These results are consistent with Clarkson et al. (1992) and Clarkson et al. (1994). Conversely, Ruland et al. (1990) found no significant differences in analysts' forecast errors between forecasters and nonforecasters. An explanation for the differences in findings is that Ruland et al. examine routine management earnings forecasts, whereas this paper, and Clarkson et al. (1992), are concerned with the specialist settings of takeovers/initial public offerings.

A development of the logit models reported in this paper would be to include a measure of "good/bad news" for forecasters and nonforecasters to test whether firms are more likely to disclose forecasts when there is good news to report. This variable could be measured as *Deviation from market expectations* – the difference between subsequent actual profit before taxation and consensus analysts' forecast of profit before taxation for the year. In the case of targets successfully taken over, this information may be difficult to obtain. In addition, such forecasts will only be available in respect of larger target companies that are followed by analysts.

An interesting question not addressed by this paper is whether forecasts disclosed by targets are accurate. Measuring the accuracy of forecasts disclosed during takeovers is difficult. Dev and Webb (1972), amongst others, have pointed to the difficulty of 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).

Forecasts as defence weapons

Empirical evidence shows publication of profit forecasts to influence outcome of bids only where outcome is defined as offer price increased/not increased. For both agreed and contested bids, the data showed no significant association between disclosure of forecasts by targets and success of bids, consistent with Sudarsanam (1995b).

The relationship between success (however defined) and disclosure of forecasts is difficult to test. It is difficult to be certain that publication of forecasts (and not other events) influences the outcome. This paper focuses on a single defence strategy - publication of a profit forecast. Other defence tactics may also influence outcome. Sudarsanam (1995b) found lobbying friendly shareholders, enlisting a white knight, gathering support of the unions, and litigation significantly improved the chances of a successful defence, whereas advertising and divestments significantly reduced those chances. Behaviour of bidders (who may themselves disclose a profit forecast) may also influence outcomes. The extent of newspaper coverage of the bid is another relevant factor. In summary, it is difficult to isolate the extent to which price increases relate directly to publication of forecasts, or to other tactics used by targets, or to unobservable negotiations between the parties to the bid.

Subject to these limitations, this paper provides evidence suggesting that profit forecasts are ineffective in securing outright defeat of takeover bids, confirming findings of previous research. These findings on their own raise the question, “why do targets expend so much valuable management time and costly professional resources in publishing these forecasts”? Consequently, the evidence in this research that forecasts may be published to induce increased offer prices, makes intuitive sense.

If the only tangible effect of disclosure of profit forecasts by targets is increased offer prices, it seems to follow that they are successfully deployed as a defence mechanism more in the interests of shareholders seeking the best price for their shares, than in the interests of management wishing to retain their jobs by defeating the bid. The foregoing does not exclude the possibility that management’s motive may be to protect their own jobs, it merely queries the efficacy of disclosure of profit forecasts to that end. An analysis of the relationship between target management's job outcomes after takeover and forecast disclosure could be undertaken to see if forecasts are used by management as an entrenchment tool.

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 Results were similar using three alternative measures of size: Total Assets, Owners' Equity and Offer Price.
- 4 Correlations between industry groups are not reported in Table 3. As one would expect, these correlations are high.
- 5 In a standard regression framework intuition might suggest a single equation endogeneity bias in these models owing to the presence of the previously estimated variable F in the models on page 21. However the logit regression model makes an assumption about the specific distribution of the error term in the model which the classical regression model does not do. Hence there is no direct analog to standard single equation bias in this framework.

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