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Irrevocable Commitments and Going Private

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Abstract

This paper adds to growing interest in public to private buy-outs and mechanisms to ensure bid success. Using a unique, hand-collected dataset of 155 public to private buy-outs we provide one of the first examinations of the determinants of irrevocable commitments. Irrevocable commitments involve undertakings given by existing shareholders to agree to sell their shares to the bidder before the bid to take the company private is announced. We find that, for management buy-outs, the level of irrevocable commitments is increased by the bid premium, the reputation of the private equity backer and board shareholdings. The level of irrevocable commitments is reduced by rumours of a takeover bid and bid value. We therefore find evidence that management and private equity firms' activity prior to the bid's announcement can have an important impact on the process of going private.

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Irrevocable Commitments and Going Private

1. Introduction

There is growing recognition that hostile, and competing, public bids represent only a small part of the takeover process (Schwert, 1996; 2000; Moeller et al, 2004). Rather, many takeovers are either friendly (Weir and Laing 2003) or involve private actions and bargaining processes before the bid becomes public (Hansen, 2001; Boone and Mulherin 2002, 2003).

The goal of this paper is to add to this debate by addressing an important but neglected aspect of the takeover process, namely irrevocable commitments. These are undertakings given by existing shareholders to agree to sell their shares to the bidder before the bid is announced and so represent a measure of private activity (Berwin, 2003). They are an established feature of takeover transactions and are explicitly recognised in UK corporate law and takeover codes. They are part of the public bid process because they have to be made public when the bid is announced but obtaining them also involves private actions by the bidder prior to the bid announcement. Significant irrevocable commitments are also likely to deter alternative bidders. Gaining irrevocable commitments, therefore, involves actions by a bidder to ensure that they maximize the probability of success. In this paper, we discuss irrevocable commitments in relation to public to private transactions (PTPs) and examine the factors that determine the level of irrevocable commitments obtained by the bidder from existing shareholders.

PTP transactions represent a novel form of takeover in which a listed corporation is taken private as an independent company with a new ownership and

new financing structure, traditionally involving significant debt. UK PTPs provide a particularly fertile context to study irrevocable commitments for a number of reasons. First, the UK has experienced a significant change in the way in which the market for corporate control operates with PTPs accounting for 30% of all acquisitions of publicly quoted companies by the early 2000s compared with only 4% during the early 1990s. Second, irrevocable commitments play a central role in the sale process of these PTPs (CMBOR, 2003). For example, during the period 1998-2003 the mean level of irrevocable commitments in UK PTPs accounted for 42.25% of equity. Third, the UK PTP sector is characterized by a very low level of public bidding by competing or hostile bidders. Fourth, private equity firms play an important role in negotiating and financing PTPs (CMBOR, 2003). It is therefore relevant to analyse their involvement in gaining irrevocable commitments.

The paper extends existing literatures on both the bid process and PTP buy-outs. Previous literature on the bid process has considered a number of aspects. One, toehold bids may be used where the seller controls the sale process but may be problematical (Betton and Eckbo, 2000; Bulow et al., 1999). Two, Cornu and Isakov (2000) show that the medium of payment may be used to deter other buyers from entering the market. Three, information may be disclosed privately to a limited number of potential buyers before a takeover bid becomes public (Boone and Mulherin, 2002; 2003). Four, bidders may privately negotiate lock-up options from target management which may deter other bidders (Burch, 2001). Fifth, and similar to lock-ups, termination fees may be negotiated. These are payable to the bidder by the target if a merger is not consummated after a merger agreement is signed by the company's board of directors (Officer, 2003). An examination of the determinants of

lock-up and termination fee usage by Coates and Subramanian (2000,) shows that target termination fees are more likely with larger targets and the use of tender offers.

The literature on PTP buy-outs has tended to compare the characteristics of firms going private with those that remained public. These studies have analysed performance (Lehn and Poulsen, 1989; Kieschnick, 1998; Opler and Titman, 1993), governance characteristics (Baliga, et al 1996; Weir et al 2005a), the potential tax advantages of going private (Kaplan, 1989; Halpern et al., 1999), the wealth effects gained by shareholders in firms going private (De Angelo et al 1984; Lee et al., 1992; Easterwood et al., 1994; Renneboog et al., 2005), and the role of pressure from the market for corporate control (Lehn and Poulsen, 1989; Halpern et al., 1999). In addition, Citron et al (2003) have analysed the recovery rates of creditors when management buyouts fail. The pre-investment valuation methods used by venture capitalists, which play a significant role in the European buy-out market, have been studied by Manigart et al., (2000). The LBO literature more generally has considered the role of the reputation of LBO associations and private equity firms in influencing the longevity of buy-outs (Kaplan 1991) and in the performance of IPOs of private equity-backed buy-outs (Jelic, et al., 2005).

The paper builds on these literatures and makes a number of contributions to our understanding of the bid process. First, in contrast to much of the existing LBO literature which concentrates on the end of the PTP transaction, this paper examines an aspect of the process up to a bid being announced. Second, and related to the first point, an understanding of the importance of private, pre-announcement activity, may offer insights into the apparent increase in the frequency of non-hostile takeover

activity, for example, only seven, or 4.5%, of our sample experienced a hostile bid. Third, we analyse the factors that influence the willingness of current shareholders to give irrevocable commitments to accept an offer before the bid is made public. Fourth, we analyse differences between internally driven management buy-outs (MBOs) and externally driven management buy-ins, (MBIs) since these differences may influence the ability of the bidder to obtain irrevocable commitments. Fifth, we build on evidence of the important certification effect of private equity firms in IPOs to consider whether commitment to a proposed PTP involving a reputable private equity firm signals to existing shareholders that the firm may benefit from being taken private, particularly if there is unlikely to be an alternative buyer.

INSERT FIGURE 1 NEAR HERE

The basis for the analysis consists of a unique, hand-collected dataset involving PTP transactions completed in the UK during the period 1998 to 2003. As Figure 1 shows, prior to 1998, PTP activity was extremely low so the period analysed covers the years when PTP activity had increased significantly.

For PTPs in general, we find that the less the takeover speculation, the higher the bid value and the larger the board shareholdings, the higher the level of irrevocable commitments. We find that those proposing a management buyout (MBO) are more likely to gain the backing of other shareholders the greater the bid premium and the more likely the private equity backer is to be reputable. Irrevocable commitments are also more likely to be higher if there is less takeover interest from

other firms and the larger the value of the bid. In contrast, the MBI results are less encouraging.

The remainder of this paper is organized as follows. Section 2 reviews the nature of the bid process and irrevocable commitments. Section 3 develops hypotheses relating to the determinants of the level of irrevocable commitments. Section 4 provides an overview of the development of PTPs in the UK. It also describes data sources and examines the sample characteristics, outlines the model specification and defines the variables. The results are presented in Section 5 and the final section presents some conclusions.

2. The bid process and irrevocable commitments

In this section, we provide a discussion of the takeover process and the importance of irrevocable commitments to that process.

2.1. The sales process

Boone and Mulherin (2003) identify a five step sales process consisting of an initiation event, contact with potential buyers, signing confidentiality agreements, private bidding and finally public bidding. They recognize that the initiation can come from either the seller or buyer. This process is similar to that which occurs in the UK. However, as far as we are aware, there is no publicly available information about step four, private bidding. It is therefore not possible to use official documents to assess the extent of activity before a bid is announced. In addition, the private auction process implies an agreement between buyer and seller about the conduct of a bid. Unlike in the US, this is very uncommon in the UK (Freshfields et al, 2002).

2.2. The sales process and irrevocable commitments

By examining irrevocable commitments it is possible to gain important insights into the bid process because obtaining them involves private actions by the bidder before the bid is announced. Irrevocable commitments are explicitly recognized in UK corporate law and takeover codes. The UK's City Code on Takeovers and Mergers includes both rules concerning the conduct of management buy-outs of listed corporations and restrictions relating to irrevocable commitments in terms of the number of shareholders that can be approached to obtain irrevocable commitments, the prohibition of favourable treatment for those offering irrevocable commitments without Takeover Panel consent, and the disclosure of irrevocable commitments.

The importance of irrevocable commitments to reducing the risk of failure of the buy-out bid is highlighted by both the costs of undertaking such transactions and the regulations governing them in the UK. The costs of undertaking a PTP that fails to be completed can be high and hence gaining irrevocable commitments may be regarded as a means of avoiding these costs. Private equity financiers report that the costs of undertaking a PTP far exceed those involved in other buy-out deals and can amount to 10% of the transaction value (CMBOR, 1999). As PTPs are generally funded by small amounts of private equity and significant amounts of leverage raised specifically to fund the purchase, bid failure may mean that the bidder is left as a minority holder which faces the difficulty of unloading shares to repay debt in what may be an illiquid market. In these circumstances, irrevocable commitments may be especially relevant since they can alleviate some of the uncertainties associated with the bid process.

With respect to takeover regulations, to take a company private in the UK, the bidder must achieve 75% of the equity (Sterling and Wright, 1990). It is unusual for a bidder to declare the bid unconditional when it holds less than the 75% of the ordinary stock it needs to be able re-register the corporation as private company. However, it is generally necessary to acquire 90% plus of the equity because this enables the bidder to compulsorily purchase the remaining minority shareholdings. If the buy-out bid acquires between 75% and 90% of common stock the buyer can seek to pass a special resolution to re-register the corporation as a private company. However, minority stockholdings of at least 5% in nominal value of the issued stock or at least 50 members can apply within 28 days to the court to cancel the resolution. If a dissentient minority has 25% plus of the common stock they can block resolution to go private. Once a company is re-registered as private, the new owners can take advantage of the private company's exemptions from the financial assistance rules of the Companies Act (Berwin, 2003).

Gaining irrevocable commitments therefore means that the bidder is sending a signal to other non-committed shareholders about the quality of the deal. The announcement of substantial irrevocable commitments may also make other potential bidders less likely to enter the contest with an alternative bid. If they do, a competing bid must be made within twenty-one days of the posting of the offer documents. It may, however, be difficult for an alternative buyer to complete due diligence within the required time. Private equity firms considering bidding are in particular likely to want to undertake due diligence (Graham, 2001; Berwin, 2003). Existing shareholders may also have the incentive to give irrevocable commitments as they may be able to

negotiate conditions that enable them to sell their shares to a new bidder offering a higher price (so-called 'soft' commitments) (Berwin, 2003).

3. Factors affecting the level of irrevocable commitments

Having discussed the importance of irrevocable commitments, we consider the following potential influences on the level of irrevocable commitments: the size of the transaction; the bid premium offered; the extent of press speculation about takeovers; the reputation of private equity financiers; the size of shareholding held by board members; and the accounting performance of the firm.

3.1. Bid Value

The problem for acquirers where the target has dispersed stockholders is well-recognized (Grossman and Hart, 1980). Given that shareholdings are likely to be more dispersed in larger corporations, it will be more difficult for PTP bidders to gain the support of significant numbers of shareholders. However, the smaller the PTP, the more likely it is that the bidder will be able to gain substantial support for their plans. Hence, we expect that the larger the value of the deal, the more difficult it will be to gain significant irrevocable undertakings. We expect that this relationship will hold for PTPs involving both MBOs and MBIs. Hence:

H1: There is a negative relationship between the value of a PTP and the extent of irrevocable commitments.

3.2. Return on assets

If a company is performing poorly, with little apparent prospect of recovery, there is less incentive for the shareholders to maintain their stake in the company. Poorly performing firms are likely to offer little in the way of dividends paid or capital gains which means that existing shareholders are likely to be looking for an exit route. In such cases, institutional investors may be willing to encourage an MBO bid as this may be the only feasible means by which they can effect an exit. In an environment of few hostile bidders competing to take over under-performing assets and replace management, a bid by a corporate acquirer may not emerge. The emergence of MBIs backed by private equity firms provides an alternative where incumbent management may not have performed effectively enough to secure institutional support. Institutional shareholders may be more willing to give irrevocable commitments to MBIs because they expect incoming management to improve performance. It is therefore expected that irrevocable commitments will be higher the poorer the company performance in PTPs involving both MBOs and MBIs. Hence:

H2: There is a negative relationship between pre-PTP performance and the extent of irrevocable commitments.

3.3. Bid premium

Acquirers typically need to offer a premium on the prevailing share price to persuade existing stockholders to sell. There is extensive evidence that premia are higher in hostile rather than friendly bids (Jarrell, et al., 1988). Public to private buy-out transactions also generate significant bid premia. A series of studies (DeAngelo et al., 1984; Toradzadeh and Bertin, 1987; Kaplan, 1989; Lehn and Poulsen, 1989); Marais et al., 1989) have each found significant abnormal gains for the target's shareholders

around the time of the announcement to go private. The implied bid premium appears even larger than that found in conventional acquisitions as sellers aim to capture some of the expected future gains from the improved incentive and governance mechanisms introduced on buy-out.

In order to persuade existing shareholders to commit to the PTP, bidders may need to offer a premium sufficiently above the current share price that minimizes the likelihood of an alternative bidder emerging and which also reflects at least part of the expected future gains from the PTP. The higher the bid premium, the more likely existing shareholders will support a bid because of the financial windfall. Institutional investors may recognise that managers proposing an MBO may have greater private information about future prospects. For institutional investors to be convinced that incumbents are not exploiting this information to their detriment, they may expect a higher premium to be offered. Management and their private equity firm backers may also recognise that, since it would send a negative signal about their behaviour if they were subsequently to increase their bid, they need to offer a sufficiently attractive bid from the outset. Indeed, following concerns about the offer in the Magnet buy-out in 1989, the Takeover Code in the UK specifically introduced rules concerning the conduct of public to private bids to ensure that a fair price was offered (Wright, et al., 1991).¹

As discussed above, a potential buyer will seek to gain the backing of shareholders by means of irrevocable commitments. It will therefore be important to

¹ A number of PTPs failed to complete in the period covered by this study (1998-2003) because the price was reported to be too low (e.g., Litho Supplies) and/or

gain this support as early in the takeover process as possible because a lack of support may result in a bid not being made. This means that an indication of the extent of the firm's current undervaluation will have to be incorporated into the offer price at an early stage of the process. For this reason, the use of abnormal returns around the date of the bid announcement is not appropriate because the time period is too short to take account of the period at which the offer was made. Weir et al (2005b) show that undervaluation persists over a period of time prior to going private and, using market capitalization data, find significant evidence of undervaluation in firms going private. Given the time involved in completing a PTP transaction, and the need to gain support from existing shareholders early in the process, we argue that the use of market capitalization data offers a useful point of reference against which to measure the extent of the market undervaluation and hence the premium offered. Hence:

H3a: There is a positive relationship between the premium paid in PTP MBOs and the extent of irrevocable commitments.

Management in MBIs are outsiders and may not have access to such information. In addition, MBIs tend to involve more turnaround cases (Robbie and Wright, 1996). However, it is still the case that shareholders have to find an offer financially appealing. Therefore the higher the premium, the greater the irrevocable commitments gained. Hence:

H3b: There is a positive relationship between the premium paid in PTP MBIs and the extent of irrevocable commitments.

because of failure to convince key block shareholders to sell (e.g., Capitol and

3.4. *Bid rumours*

The extent to which information is publicly available may guide the private actions of the shareholders. There is evidence that press speculation about possible takeovers does contain valuable information (Pound and Zeckhauser, 1990). Press speculation about a possible acquisition will provide a proxy for potential outside interest in the company,(Lehn and Poulsen 1989).

External shareholders may have a greater incentive to commit to the PTP where they are convinced that the likelihood of a competing bidder appearing is minimal. The less there is press speculation, the less likely it is that other buyers are interested in the company. This will make it easier for those wishing to take the company private to gain support from other shareholders. We therefore expect that less take-over speculation will make it easier to gain backing to take the company private in an MBO. Hence:

H4a: There is a negative relationship between takeover rumours in PTP MBOs and the extent of irrevocable commitments.

The emergence of an MBI bid may suggest to external shareholders that if one outside bidder is available, so might others. Hence, in respect of MBIs we also expect takeover rumours to be negatively associated with irrevocable commitments:

H4b: There is a negative relationship between takeover rumours in PTP MBIs and the extent of irrevocable commitments.

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3.5. *Private equity firms*

The growing interest in the role of venture capitalists (VCs) and private equity firms and the stock market has tended to focus on IPOs of VC-backed firms (Brav and Gompers, 1997; Lerner, 1994; Espenlaub et al 2000). The presence of venture capital and private equity investors has an important influence on the going public process, particularly if these financiers are more experienced and reputable. Supportive evidence from IPOs of venture-backed firms is provided by Megginson and Weiss (1991) and Gompers (1996) and for IPOs of private equity-backed LBOs by Jelic et al. (2005). Going private also usually involves the participation of private equity providers, some of which may have strong reputations as specialists in buy-out transactions (Kaplan, 1991; Baker and Smith, 1998).

It is reasonable to argue that the choice of private equity provider may be linked to the provider's reputation (Kester and Luehrman, 1995). One with a successful track record may encourage shareholders to commit to a deal because they will regard this as providing some sort of seal of approval to the plan and that the equity provider will be able to secure sufficient funding for the deal.

Reputable private equity firms may therefore be more able to persuade existing shareholders to commit to a buy-out bid. Their idiosyncratic skills may enable reputable private equity firms to identify and realize gains that others cannot and hence offer a more convincing rationale to existing shareholders. More reputable private equity firms backing management in an MBO may also provide a certification role in that they may be perceived to be associated with offering a fair priced deal to

protect their reputation in order to access future deals. Thus the higher the reputation of the private equity firm, the more likely that shareholders will commit to the deal, especially in PTPs involving MBOs. The above arguments also apply to MBIs. Therefore, for MBOs and MBIs, the higher the reputation of the private equity provider, the greater the irrevocable commitments. Hence:

H5: There is a positive relationship between the reputation of the private equity firm supporting a PTP and the extent of irrevocable commitments.

3.6. Board ownership

Evidence of higher board shareholdings in firms going private was found by Maupin (1987) and Halpern et al (1999). An MBO's irrevocable commitments will normally include all or most of the current management's shareholdings in addition to any external backing they may receive. Therefore as board ownership increases, irrevocable commitments will also increase. Although there is an inherent conflict of interest between institutional shareholders and managers in an MBO bid, it is likely that significant board ownership will encourage other shareholders to back the bid to go private since a board shareholding that is sufficiently large may make an opposing bid unlikely (Song and Walkling, 1993). Thus, for MBOs, we expect that the higher the board shareholdings, the higher the irrevocable commitments. Hence:

H6a: There is a positive relationship between board shareholdings in PTP MBOs and the extent of irrevocable commitments.

With respect to MBIs, if the outside buyers wanted to complete the process without informing the management of the takeover bid, the buyers would simply gain as much support as possible from other shareholders. Insiders who are not involved in an MBI attempt may be concerned that a successful hostile MBI may lead to their removal. Where boards are dominated by internal management, evidence suggests that management may not be able to influence the outcome once a hostile bid occurs (Sudarsanam, 1995; O'Sullivan and Wong, 1999). This suggests that where institutional shareholders are unhappy with incumbent management's performance, yet incumbent board members have large equity stakes, they may try to increase the probability of an outside bid succeeding by being even more willing to offer irrevocable commitments. PTPs involving hostile MBI bids are, however, rare (CMBOR, 2003).

An alternative explanation is that external buyers may have the incumbent management on their side. This may arise, for example where the PTP is initiated by a private equity firm that recognises that there is a need to supplement at least some of the incumbent team with stronger external management; incumbent management may be retained as they have important specific knowledge about the business. In these cases, it may be easier to persuade other shareholders to support the bid before it is made public. This would also suggest a positive relationship between irrevocable commitments and board ownership for MBIs. Hence:

H6b: There is a positive relationship between board shareholdings in PTP MBIs and the extent of irrevocable commitments.

4. UK Public to Privates: sector and sample issues

4.1. UK public to private characteristics and issues

In the US, PTPs first appeared in significant numbers in the 1980s. In the UK, PTPs were in evidence from the mid-1980s but, as Figure 1 shows, activity was modest (Wright et al 2000). The UK experienced a significant increase in the number and value of public-to-private transactions during the late 1990s. During the eight year period 1990-1997, only 37 PTPs took place in total (an average of 4.6 per year) whereas during the three year period 1998-2003, there were 205 PTPs (an average of 34 per year) (CMBOR, 2003). The average value of each deal was £29.8 million for 1990-1997 and £136.28 million for 1998-2003, which represents a 4.57 fold increase in deal size. Many firms that go private are relatively small. For example, even in the period 1998-2003, 90% of PTPs had a market capitalization of less than £300 million (approx \$500 million). The increased importance of PTPs in the overall MBO market is highlighted by the fact that from accounting for 2.8% of the total MBO market value over the period 1990-97, they accounted for 26.2% during the period 1998-2003. We therefore focus on the period in which there was a significant increase in PTP activity.

4.2. Data

Data were obtained for public-to-private transactions completed in the UK during the period 1998-2003. The data included performance, ownership, take-over speculation and private equity provider information. This gave us a final sample of 155 public-to-private transactions. The names of firms going private were provided by the Center for Management Buy-out Research (CMBOR), which is based at the University of Nottingham, and which comprises the effective population of buy-outs in the UK.

The CMBOR database is compiled from a wide range of sources including twice yearly surveys of private equity and debt providers to buy-outs², press releases by these financiers, the financial press, stock exchange circulars issued by companies and companies' annual reports. The database has no lower size cut-off. Information about irrevocable commitments was obtained from the offer documents, Financial Times Intelligence and Vickers (2000). CMBOR also provided data on the private equity providers funding and their reputations. Data on the value of the bids were obtained from CMBOR. Information relating to takeover rumours was taken from Financial Times Intelligence Service. Data on board shareholdings were taken from the PriceWaterhouse Corporate Register. Accounting data were taken from Company Analysis.

The distribution of the sample over each of the years 1998-2003 is shown in Table 1 in terms the total value, total number and mean value per deal.

TABLE 1 NEAR HERE

In our sample, the value of PTPs increased from £2,739 million in 1998 to £4,437 million in 2000 and by 2003, it was £1,790 million. In total, the sample's value of bids was £17,863 million. The average value of bids over the period is £115.25 million. The average value increased from £105.34 million in 1998 to £164.43 million in 2000 but has been declining since to £68.84 million in 2003. This indicates that PTPs are on average getting smaller even though the number has been increasing. A similar pattern applies to MBOs with the mean value of deals

² These surveys generally obtain a 100% response rate from all the financiers active in the buy-out market as they receive a free copy of a quarterly review of aggregate market trends based on the data

increasing from £105.3 million in 1998 to £164.4 million in 2000 and subsequently falling to £68.84 in 2003. Although there were more MBOs in 2003 compared to 2002, the number is lower than in 1999. The number of MBIs has remained relatively stable over the period but there have been substantial changes to the average value of deals with the figures ranging from £390 million in 2000 to £47.34 million in 2001.

INSERT TABLE 2 NEAR HERE

Table 2 shows the distribution of the sample by sector. We find that PTPs occur in a wide range of sectors, with the most common being Household Goods, Engineering, General Retailing and Support Services. Other sectors with relatively large numbers of PTPs are Distribution, Leisure and Hotels and Real Estate. The final column in Table 2 shows the number of PTPs as a percentage of the total number of firms in each of the industrial classifications over the period 1998-2003. PTPs are relatively more common in a number of sectors, particularly in Diversified Industrials, Alcoholic Beverages, Household Goods, Food Retailers and Engineering. In contrast, they are less common, relative to the number of firms, in Media, Other Financial Services, Information Technology Hardware and Software and Computer Services. MBOs are also more frequent in Building and Construction, Household Goods, Media and Support Services. MBIs are relatively more common in sectors such as Engineering, General Retailers and Leisure and Hotels.

Table 3 presents the range of irrevocable commitments gained for PTPs, MBOs and MBIs. In relation to PTPs in general, 23.40% of the sample gained up to

they supply which is recognized as the leading source of information in the market.

20% irrevocables and some 60% achieved at least 50.06% support from shareholders prior to the bid announcement. The most common level of support came in the fourth quintile, with between 50.06% to 57.84% support. MBOs also show significant evidence of pre-bid support with 40% of MBOs winning more than 50.76% acceptances before the bid announcement. The top quintile achieved over 60% acceptances. MBIs also achieve substantial pre-bid support with 60% gaining the support of at least 36.62% of the shares before the bid announcement. In general, MBI irrevocable commitments are slightly lower than those for MBOs but the difference is not significant.

The table shows clear evidence of private activity and that the bidders had been successful in gaining significant support for their bids prior to the bids being made public. The median irrevocable commitments figure for PTPs is 44.06%; for MBOs it is 45.83%; and for MBIs it is 42.10%. These figures indicate that the bidders were in an extremely strong position as soon as the announcement of the bid was made public and that potential alternative bidders would be in a difficult position if they put forward an alternative bid. Irrevocable commitments therefore offer an additional insight into the workings of the takeover process.

INSERT TABLE 3 NEAR HERE

4.3 Model Specification

The hypotheses developed in section 3 are tested using OLS. Specifically, we operationalise the following general model:

$$\begin{aligned} Irrevocables_i = & \alpha_0 - \alpha_1 Bidvalue_i + \alpha_2 Premium_i - \alpha_3 Rumours_i + \alpha_4 Reputation_i \\ & - \alpha_5 ROA_i + \alpha_6 Boardsh_i + \varepsilon_i \end{aligned}$$

The variables used in the analysis are defined as follows:

i. dependent variable

Irrevocables, as the dependent variable, is the percentage of equity committed to the bidder by the existing shareholders before the bid announcement.

ii. independent variables

LnBidValue is the log of the value of the bid (hypothesis 1). Performance is measured by return on assets, *ROA*, which is defined as earnings before interest and tax deflated by the book value of total assets at the last published accounts (hypothesis 2). The bid premium, *Premium*, is the value of the bid deflated by the firm's market capitalization at the date of the last accounts (hypothesis 3). Speculation about a possible take-over, *Rumours*, is a dummy variable that takes the value of one if the financial press had reported rumors of take-over interest and zero if not (hypothesis 4). It refers to the reporting of takeover speculation over the period one month to eighteen months prior to the announcement of the PTP. We use all press speculation, as Lehn and Poulsen (1989), as a measure of pressure from the market for corporate control because this reflects the extent publicly available information about possible outside interest in the company. The standing of a private equity provider was measured by *Reputation*, a dummy variable which took the value of 1 if a private equity provider was used in more than two public to private deals in our sample and zero if not (hypothesis 5). *Boardsh* measures equity ownership of the board deflated by total assets at the last

published accounts (hypothesis 6). We adjust for size because here is evidence that board ownership and company size are negatively related, Mikkelson and Partch (1989) and Song and Walkling (1993).

5. Results

5.1 Descriptive statistics and correlations

Table 4 provides an overview of the sample's characteristics and correlations. The mean percentage irrevocable commitments received was 42.25 per cent, although there was a large standard deviation around this level of 20.86 per cent. The median was 44.60 per cent. The public to private firms were on average of modest size, with a mean bid value of £115.25 million but there was a large variation around this position with a standard deviation of £184.91 million. The mean deflated board shareholding was 1.10 with, again a large standard deviation of 4.76. On average, 52 per cent of the sample experienced rumours of take-over interest as reported in the financial press. Overall, 32 per cent of the deals used venture capital firms that were involved in more than two of the deals in the sample. The average return on assets was 4.90 per cent.

TABLE 4 NEAR HERE

Table 4 also reports the correlation matrix for the independent variables. High correlations indicate the presence of multicollinearity. None of the correlations are excessively high and when the regressions were run, neither the eigen values, which ranged from 0.048 to 0.0925, nor the variance inflation factors, which ranged from 1.064 to 1.406, were near their critical levels for indicating the presence of multicollinearity.

5.2 Multivariate Results

We present results for three sets of dependent variable (Table 5). Model 1 refers to all PTPs, model 2 refers to MBOs only and model 3 refers to MBIs. Model 1 shows that as hypothesised, for all PTPs, bid value (Hypothesis H1) and press speculation (Hypothesis H4) are both negative and significant. We also find, again consistent with our hypothesis, that board shareholdings are positive and significant (Hypothesis H6). However, contrary to expectations, neither bid premiums (H3) nor the return on assets (H2) are significant. The model has normally distributed residuals and is significant at the 5 per cent level.

TABLE 5 NEAR HERE

The results for MBOs offer stronger support for our hypotheses. Model 2 shows that, as hypothesised, irrevocable commitments are lower the larger the bid value (Hypothesis 1), indicating that the more diffuse nature of shareholdings in larger firms makes it harder to gain irrevocable commitments. We also find that, consistent with Hypothesis 3a, higher premiums bring about greater irrevocable commitments. Thus existing shareholders are more likely to commit to a buyer, the greater the financial benefit gained from the bid. Consistent with our expectations we also find that irrevocable commitments are higher where take-over speculation is lowest suggesting that shareholders are more willing to commit to a bidder if there is less likelihood of an alternative buyer (Hypothesis H4a). The private equity provider coefficient is significant and positive, as predicted (Hypothesis H5). This indicates that dealing with a highly reputable private equity provider increases irrevocable

commitments. This could work through the signal that it sends to shareholders, that is, that the management is serious in its attempt to go private because it has employed a highly reputable private equity provider. It could also be the result of the ability of the private equity provider to persuade other shareholders to back the bid. Consistent with Hypothesis 6a, we find that irrevocable commitments are higher the greater the board shareholdings. Although negative as predicted, the return on assets was not significant. The equation has normally distributed residuals and is significant at 5%.

In contrast to the MBO sample, the results in Model 3 show that it is much less successful in explaining the extent of irrevocable commitments for MBI transactions. Board shareholdings (Hypothesis 6b) is significant and positive as hypothesized. However, the other variables are insignificant and the F value of Model 3 is also insignificant.

We extended the analysis to take account of the way in which differences in the stock market, as the result of the dot.com boom (and bust) may have affected the willingness of shareholders to give irrevocable commitments. Given the general fall in the stock market, it might be expected that shareholders would be more willing to agree to grant irrevocable commitments as a means of realising some of the lost value suffered by the market downturn. We constructed a dummy variable that took the value of one for the post dot.com boom, 2001-2003, and zero for the period of the boom, 1998-2000. The variable was positive but insignificant showing that irrevocable commitments were not dependent on the change in stock market conditions.

Song and Walkling (1993) reported a non-linear relationship between managerial ownership and size. We followed Song and Walkling and took the square root of board ownership. It was insignificant for PTPs and MBOs with the MBI equation remaining insignificant. This suggests that non-linearities in the board ownership-size relationship are not present in PTPs. We also extended the analysis of the importance of ownership by assessing the impact of CEO, institutional and blockholding shareholders. In the UK, shareholdings in excess of 3% are reported. We obtained data for total institutional shareholdings in excess of 3% and for total blockholdings in excess of 3%. Institutions were defined as pension funds, insurance companies and investment funds. We expected a positive relationship between irrevocable commitments and institutional shareholdings. Blockholders were defined as private individuals or family members that were not on the board. We expected a positive relationship between irrevocable commitments and blockholder shareholdings. We found that institutional shareholdings were not significant in all three equations. Blockholdings were positive and significant at 5% for all PTPs but insignificant for MBOs and non-MBOs. We also found that CEO ownership was positive and significant at the 1% level for all PTPs and MBOs but was insignificant for non-MBOs. These results show that the support of key ownership groups or individuals is an important element in taking a firm private.

6. Conclusions

The paper has contributed to the debate about the sale process by analyzing the factors that influence the sale of firms going private. It has shown that bidders involved in PTPs gain substantial backing from shareholders before the bid is made public. It has also provided one of the first analyses of the factors that affect the extent of

irrevocable commitments negotiated by potential buyers prior to the public announcement of a bid. We have shown that the model explains MBOs much more effectively than MBIs. It was found that the irrevocable commitments for MBOs could be explained in terms of the value of the bid (Hypothesis 1), the premium offered to other shareholders (Hypothesis H3a), the extent of takeover speculation (Hypothesis H4a), the reputation of the private equity provider used (Hypothesis H5) and board ownership (Hypothesis 6). The Hypothesis 5 result is important because it shows that private equity firms and management involved in public to private MBOs were actively involved in gaining support for the deal by obtaining irrevocable commitments.

The results provide an additional insight into the way in which public-to-private transactions take place. Our results suggest that irrevocable commitments are used in an attempt to prevent alternative bidders from entering the bidding process. Consistent with Boone and Mulherin (2002), the results show that, for PTPs in general and MBOs in particular, private activity that takes place before the actual announcement of the bid can have an important impact on the process of going private.

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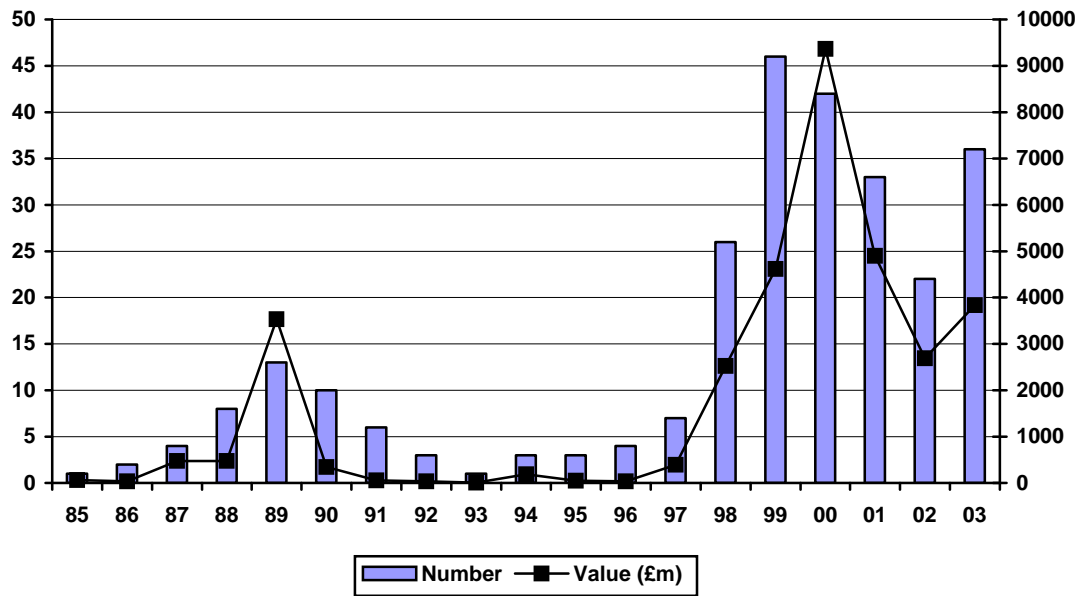
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Figure 1: UK Public to Private Buy-outs 1985-2003



Source CMBOR

Table 1
Descriptive statistics of deals

Descriptive statistics on sample value of PTP, MBO and MBI deals, the number of deals by PTP, MBO and MBI and the average deal value for PTPs, MBOs and MBIs. The figures relate to the years 1998-2003.

This table presents data on the total transaction value, the number of PTPs and the mean value of PTPs by the year of deal completion

Year	Total value of deals £m			Number of deals			Mean value per deal £m		
	PTP	MBO	MBI	PTP	MBO	MBI	PTP	MBO	MBI
1998	2739	54	2235	26	13	13	105.34	38.77	171.92
1999	3605	1976	1629	33	25	8	109.79	79.04	203.63
2000	4437	1707	331	27	20	7	164.43	85.35	390.00
2001	4070	3739	331	28	21	7	145.37	178.04	47.34
2002	1222	138	1084	15	8	7	81.46	17.31	154.73
2003	1790	557	1239	26	18	8	68.84	60.62	154.90

Source: CMBOR

Some numbers do not sum because of rounding

Table 2

Sample industrial classification distribution by the number of deals by PTP, MBO and MBI, the percentage of the sample and the percentage of the total number of firms in the sector over the period 1998-2003.

Sector	Number of deals			Percentage of sample	Percentage of firms in sector
	Total PTP	MBO	MBI		
1100 Chemicals	2	0	2	1.3	1.22
1300 Building and Construction	9	9	0	5.8	2.07
2400 Diversified Industrials	4	1	3	2.6	6.25
2500 Electronic and Electrical Engineering	3	2	1	1.9	0.82
2600 Engineering	15	7	8	9.7	2.85
3100 Automobiles	2	2	0	1.3	2.38
3200 Alcoholic Beverages	2	1	2	1.3	3.85
3400 Household Goods	19	17	2	12.3	3.74
3600 Healthcare	6	4	2	3.9	2.33
4300 Food Producer	9	6	3	5.8	2.74
5100 Distribution	10	7	3	6.5	2.16
5200 General Retailers	13	6	7	8.4	2.63
5300 Leisure and Hotels	12	6	6	7.7	2.24
5400 Media	7	6	1	4.5	1.00
5600 Food Retailers	4	4	0	2.6	3.13
5800 Support Services	14	10	4	9.0	1.57
5900 Transport	5	4	1	3.2	1.63
7800 Water	2	1	1	1.3	2.78
8600 Real Estate	11	8	3	7.1	1.81
8700 Other financial services	1	0	1	0.6	0.14
9300 Information technology hardware	1	1	0	0.6	0.46
9700 Software and computer services	4	3	1	2.6	0.41

Table 3

Irrevocable commitments by quintile. The percentage of PTPs, MBOs and MBIs that had irrevocable commitments in each quintile. Quintile 1 is lowest 20% of irrevocable commitments and quintile 5 is the highest 20% of irrevocable commitments. The median figure for each type of transaction is also given.

	PTP %	MBO %	MBI %
1	23.40	24.08	19.28
2	37.42	37.04	36.63
3	50.06	50.57	49.46
4	57.84	60.52	55.02
5	>57.84	>60.52	>55.02
Median	44.60	45.86	42.10

Table 4
Descriptive statistics and correlation matrix

This table provides means, standard deviations (SD) and correlation matrix for the variables included in the analysis. (1) Irrevocables is defined as the percentage of shares committed to the bidders before the public announcement of the bid, (2) Bidvalue is the value of the bid in millions of pounds, (3) Premium is defined as the value of the accepted bid divided by the market capitalisation at the date of the last accounts., (4) Rumours is a dummy variable which takes the value of one if rumours of a takeover had been reported in the financial press over the previous year and zero if not, (5) Reputation is a dummy variable which takes the value of one if the private equity provider had been involved in more than two deals in the sample and zero otherwise, (6) Boardsh is the percentage of issued capital owned by the board deflated by total assets, and (7) ROA is the return on assets defined as earnings before interest and taxes deflated by total assets . SD is the standard deviation.

	Mean	SD	Irrevocables	Bidvalue	Premium	Rumours	Reputation	Boardsh
Irrevocables	42.25	20.86						
Bidvalue £m	115.25	184.91	-0.2526					
Premium	1.38	0.61	0.049	0.2420				
Rumours	0.52	0.50	-0.2098	0.2437	0.0612			
Reputation	0.32	0.47	0.0158	0.0826	0.0726	0.2248		
Boardsh	1.10	4.76	0.2215	-0.3607	-0.0612	-0.1314	-0.339	
ROA (%)	4.90	17.21	-0.0783	0.3167	-0.0577	0.1340	0.2196	-0.0232

Table 5
 OLS regression with the percentage of irrevocable commitments as the dependent variable

This table presents OLS regression results where the dependent *Irrevocables* is the percentage of equity committed to the bidder by the existing shareholders before the PTP bid announcement. LnBidvalue is the natural log of the value of the bid. ROA is the return on assets defined as earnings before interest and taxes deflated by total assets. Premium is defined as the value of the accepted bid divided by the market capitalisation at the date of the last accounts. Reputation is a dummy variable which takes the value of one if the private equity provider had been involved in more than two deals in the sample and zero otherwise. Rumours is a dummy variable which takes the value of one if rumours of a takeover had been reported in the financial press over the previous year and zero if not. Boardsh is the percentage of issued capital owned by the board deflated by total assets. t values in parenthesis are calculated from heteroscedasticity corrected standard errors (White 1980). Significance levels are: *** - significant at the 1% level; ** - significant at the 5% level; * - significant at the 10% level

	Model 1 PTP sample [n=155] Model 1	Model 2 MBO sample [n=105] Model 2	Model 3 MBI sample [n=50] Model 3
Premium	3.3867 (1.02)	9.8701 (2.81)***	-2.5881 (1.11)
ROA	-0.0151 (0.12)	-0.0200 (0.13)	0.0494 (0.34)
Rumours	-5.9871 (2.11)**	-9.5508 (2.45)**	-4.0660 (0.59)
Reputation	2.5637 (0.73)	7.3628 (1.77)*	-6.6058 (0.85)
Ln Bidvalue	-2.6385 (2.26)**	-4.3403 (2.77)***	-1.1756 (0.55)
Boardsh	0.6156 (3.01)***	0.4205 (2.58)**	6.4870 (5.36)***
Constant	49.3410 (8.39)***	47.0390 (6.79)***	49.9000 (5.14)***
F test	3.28***	4.08***	1.63
R ²	0.12	0.20	0.12
Residual normality chi square	1.95	0.76	0.65