

# **Decoupling the Motives for Takeover Resistance, and the Implications for Stockholders, Managers and Bidders**

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## **Abstract**

This study contributes to our understanding of corporate behaviour, and its governance, in response to takeover bids, by decoupling entrenchment and pure information leakage resistance, rather than relying on a restrictive, conventional, blanket treatment of hostility. In so doing, unique evidence is provided that the contrasting motives behind takeover bid resistance likely determine the nature of opposition strategies, and ultimately affect stockholder and manager related outcomes in divergent ways. Firms resorting to entrenchment orientated opposition strategies are found to have top managers with more pronounced ownership- and age-based incentives for control, and other directors with equity interests less closely aligned to stockholders, as distinct from firms using resistance tactics purely designed for information leakage purposes. Also, entrenchment resisting firms have less independent boards, are exposed to weaker discipline from active outside blockholders, and are inferior performers, with information asymmetry concerns relatively abated. Furthermore, entrenchment motivated opposition is associated with higher initial bid premiums, implying that the intention, unlike for pro-stockholder resistance, is to avoid being taken over and not to actively seek a superior offer. Stockholder returns are adversely affected by the expectation of an entrenchment opposition strategy, and managers have a greater likelihood of being disciplined as a result of using such resistance tactics. These materially significant, and endogenously robust, findings are especially striking given that the study is conducted within the auspices of the U.K. regulatory framework for takeover bids, which vehemently safeguards the interests of stockholders. Moreover, the study's U.K. setting and 1989-03 timeframe mean that a connection can be made between a proportionate decline in bids being publicly resisted for information leakage reasons, and a concomitant trend toward increased board independence.

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# **Decoupling the Motives for Takeover Resistance, and the Implications for Stockholders, Managers and Bidders**

## **1. Introduction**

The 27 billion euros hostile takeover of Arcelor by Mittal Steel in 2006 gives further reason to believe that publicly resisted bids, far from being a thing of the past, are an enduring, and still significant, feature of the market for corporate control.<sup>1</sup> The takeover defence in the Arcelor versus Mittal Steel control contest affords an intriguing insight into a bid resistance strategy first and foremost intended to safeguard the welfare of a firm's managers, as distinct from one genuinely meant to benefit its stockholders.

In what amounted to the overriding tactic in Arcelor's bid defence against Mittal Steel, it was announced on 26 May 2006 that the beleaguered firm had agreed to acquire a large stake in Severstal that would give rise to a merger and allow its top directors to remain in office.<sup>2</sup> Notwithstanding this blatant pro-manager action, Arcelor's board later recommended an increased offer from Mittal Steel, but only after securing similarly favourable post-takeover employment terms for its top directors. The improved offer was accepted by a majority of Arcelor's stockholders and led to completion of the hostile takeover by Mittal Steel.<sup>3</sup>

The overriding purpose of this study is to determine whether firm and bid characteristics differentially affect the propensity for management to choose a resistance strategy conducive to their entrenchment over one instrumental to information leakage purely for the benefit of stockholders. This creates a robust framework within which to re-evaluate the many unresolved issues related to the pro-manager versus pro-stockholder rationales for opposition to takeover bids. In particular, the study is shaped to rigorously reassess, first, the proposition of Morck, Shleifer and Vishny (1988) that hostile (resisted) takeover bids are intrinsically driven by the correction of managerial behaviour, and, second, the equally unqualified conjecture that initial premiums should be lower for opposed offers relative to those passively received (see, especially, Walkling and Long, 1984; Hirshleifer and Titman, 1990).

Refining the general resistance cum disciplinary argument of Morck et al, it is more likely that managers will err toward entrenchment opposition strategies, rather than information leakage ones,

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<sup>1</sup> Furthermore, it was announced in February 2008 that Microsoft had made a 45 billion dollars hostile approach to Yahoo.

<sup>2</sup> Arcelor's intention was to not seek stockholder approval for its defensive merger with Severstal. However, Arcelor's board was forced to concede on this in the face of staunch stockholder opposition. A subsequently proposed share buyback in a further significant bid to repel Mittal Steel also fell foul of Arcelor's stockholders.

<sup>3</sup> See the Financial Times throughout May and June 2006 for a comprehensive commentary on the Arcelor/ Mittal Steel control contest, especially the reports on 26 May and 26 June.

when their welfare is threatened by takeover bids that deliberately target ineffective incentive/governance structures and/or poor performance in comparison to other resisting firms. Furthermore, there should be a greater likelihood of observing management entrenchment strategies, over information leakage ones, the higher are initial resisted offer premiums because only for self interested managers will these reflect the expected gains from disciplinary takeovers.

However, it may instead be the case that resisted bidders pre-empt management entrenchment opposition strategies by offering larger initial premiums than when anticipating information leakage ones. A reverse direction of causality is possible because information asymmetry problems, and hence uncertainty about the valuation effects of takeovers, are, by implication, most pronounced for bidders facing resistance strategies of the latter (leakage) type. The potentially endogenous relationships between the nature of opposition strategies and the structure/disposition of initial resisted offers (resulting from bidder decisions concerning, for example, takeover premiums, stock toeholds, and prior ‘negotiations’) are therefore simultaneously considered in this study.

Distinguishing between the management welfare and stockholder interest hypothetical motives for opposition strategies is also potentially critical when ultimately investigating how takeover bid resistance affects the efficiency of the market for corporate control. As a consequence, this study subsequently determines if management entrenchment and information leakage resistance strategies have differential impacts on the stockholder relevant outcomes of takeover bids. How managers respond to bids is of crucial importance because completed takeovers generate much value for target stockholders.<sup>4</sup> On balance, management resistance adversely affects the probability of bid success (see, especially, Walkling, 1985) and overall stockholder returns (see, especially, Cotter and Zenner, 1994). Yet the consensus of the conflicting hypotheses to explain bid resistance is that much is at stake only when manager and stockholder interests diverge, which applies to entrenchment opposition strategies, but not to information leakage ones. By explicitly accounting for the disparate pro-manager and pro-stockholder intended outcomes of resistance, the study is therefore able to more informatively establish whether entrenchment (information leakage) opposition strategies are unilaterally responsible for impeding (abetting) the effectiveness of the takeover market, based on analyses encompassing final offer premiums, total stock returns, and bid success rates.

For completeness, the rigours of a dichotomous framework for resistance strategies are also applied to the manager specific outcomes of takeover bids. Precisely, this study connects the opposing

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<sup>4</sup> Jensen and Ruback (1983), Jarrell, Brickley and Netter (1988), and Andrade, Mitchell and Stafford (2001) comprehensively review the evidence on stockholder gains in successful takeover bids. In contrast, evidence is provided by Bradley, Desai and Kim (1983), Mikkelsen and Ruback (1985), Dann and DeAngelo (1988), Ruback (1988), and Cotter and Zenner (1994) of stockholder losses in unsuccessful bids when the target firm is no longer ‘in play’.

theoretical inducements for resistance to top manager removal, and reputation in the managerial/directorial labour market, following takeover bids. If there are real grounds for disciplinary takeover bids, there should be a greater likelihood of observing top managers being turned over, and absent from the boards of listed firms, after using entrenchment strategies, which, unlike information leakage ones, are used to specifically combat a personal welfare threat. Any such differences in manager specific outcomes are beyond direct clarification if takeover bid resistance is generalised.<sup>5</sup>

This study makes several other interdependent contributions by choosing to investigate the determinants and outcomes of management entrenchment versus information leakage resistance strategies in the specific context of U.K. hostile takeover bids over the period 1989-03.<sup>6</sup> First, the framework regulating the U.K. market for corporate control effectively shields stockholders from U.S. style ‘shark repellents’.<sup>7</sup> Studying an active takeover environment that essentially has a quiescent market for proactive ‘defensive’ actions makes it possible to examine the unmitigated strategies of managers in direct response to hostile bids. Second, a plethora of takeover bid resistance tactics are available to U.K. managers, but, unlike their U.S. counterparts, they require stockholder approval for any trenchant opposition proposals. Given that this defining U.K. rule for trenchant resistance proved both influential and controversial in relation to the recent attempts to harmonise European Union takeover regulation, it is especially pertinent to evaluate bid opposition strategies in a market setting that has enduringly counterbalanced managerial autonomy with stockholder protection.

Third, the timeframe for the sample of hostile takeover bids is intersected by the Cadbury Report, which initiated a substantial exogenous shaping of U.K. corporate governance. In the interests of further understanding the potential substitution effects interlinking internal and external corporate control mechanisms, this study is therefore able to consider if the extreme switch to a regulatory regime dominated by matters of increased board oversight had any secular impact on the nature of resistance

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<sup>5</sup> Managerial losses in takeover contests are documented in Walkling and Long (1984), Martin and McConnell (1991), Agrawal and Walkling (1994), and Cotter and Zenner (1994).

<sup>6</sup> There have been some studies (for example Jenkinson and Mayer, 1994; Sudarsanam, 1995; Holl and Kyriazis, 1997) of management resistance tactics in the U.K. market for corporate control. However, the motivations discussed above are as pertinent to these as they are to the U.S. empirical studies.

<sup>7</sup> Sudarsanam (2003, Ch. 18) provides a detailed discussion of the main differences between the U.S. and U.K. markets for corporate control. The dissimilarities most pertinent to this study are (1) Rule 21 of the City Code on Takeovers and Mergers, which prevents frustrating action (asset and ownership structure changes), in the face of bids, without the approval of stockholders, and (2) that all but an insignificant number of takeover attempts are resisted when they bypass managers at initiation. These disparities from the U.S. market for corporate control permit analysis of a homogenous (in terms of management response) sample of bypass bids and an active takeover market for which the balance of power is somewhat less in favour of resisting managers.

strategies and hence, by imputation, on the underlying causes (disciplinary or otherwise) of hostile takeover bids.<sup>8</sup>

Management entrenchment resistance strategies are used against 44 percent of the takeover bids comprising the entire sample for this study. However, the proportion of bid resistance strategies that are systematically classified as management entrenchment motivated is not uniform across the two distinct regulatory regimes pervading the study period. Interestingly, a higher relative incidence of management entrenchment resistance strategies is observed in the second half of the sample timeframe, when institutional attention was fixated on improving the effectiveness of internal control mechanisms, and the number of hostile takeover bids declined sharply. One possible explanation to account for the difference in proportions is that the trend toward more independent boards has increasingly enabled bidders to bargain, and ultimately reach agreement, with information leakage resisting firms over the duration of negotiations preceding public offers.<sup>9</sup>

Notwithstanding this potential regulatory induced secular variation, management entrenchment resistance strategies differ from information leakage ones in fundamental ways at the firm level. Initial offer premiums are higher for management entrenchment than for information leakage resisting firms. Given that the direction of causation is observed as running one way from bid premiums to resistance strategies, this result is interpreted as unequivocal evidence that management entrenchment firms systemically act against the best interests of their stockholders. That the degree of information asymmetry is found to be relatively less pronounced for management entrenchment resisting firms provides further support for this conclusion.

Moreover, there is good reason to conclude that management entrenchment resistance strategies are directly motivated by the perceived consequences of disciplinary takeovers. First, management entrenchment resisting firms are characterised by poorer pre-bid performance compared to their information leakage counterparts. Second, their internal monitoring mechanisms and incentives are structured in ways institutionally regarded as non-conducive to effective board oversight. Third, management entrenchment resisting firms are exposed to weaker control by outside blockholders. Finally, top officer ownership stakes are higher in management entrenchment relative to information leakage resisting firms. This latter result is indicative of private benefits of control being more important for managers that use entrenchment motivated resistance strategies.

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<sup>8</sup> Hermalin and Weisbach (2003) provide a comprehensive review of the board governance literature. Dahya, McConnell and Travlos (2002) investigate the effects of Cadbury in the more general context of internally induced top management turnover.

<sup>9</sup> Indeed, Bange and Mazzeo (2004) provide evidence that suggests target board independence pre-empts bidding firms in to pursuing negotiated takeover attempts instead of bypass ones.

The above findings provide unmitigated support for the conflicting theoretical motives behind bid resistance strategies. Furthermore, the market systematically discounts the beneficial impact on stockholder wealth from bid premiums when resistance is expected to be entrenchment motivated, suggesting that such opposition strategies are perceived to be strongly against the best interests of target stockholders. Other than the impact on target stockholder returns, stockholder related outcomes, such as final premiums and the likelihood of bid completion, do not uniformly depend on whether resistance responses are entrenchment or information leakage induced. It is argued, however, that such a conclusion may be the result of investigating an efficient functioning market for corporate control that has optimally balanced managerial discretion and stockholder protection.

Managers are significantly more likely to be turned over following takeover bids when they resisted for entrenchment reasons. This implies a direct link between the disciplinary motives for takeover bids and the entrenched mood, specifically, with which such control attempts are received by incumbent managers. This represents a refinement of the Morck et al (1988) takeover motive determining bid mood conjecture because not all hostile manager receptions to takeover bids are intended to counter disciplinary intentions. However, being taken over is the decisive determinant of whether managers are ultimately repudiated altogether by the executive/directorial labour market for listed firms.

This study proceeds as follows. Section 2 provides a more detailed discussion of the specific limitations of the extant research. The sample of publicly resisted takeover bids is framed, and the methods and variables used to investigate the potentially differential motives and outcomes of management entrenchment and information leakage resistance strategies are formulated, in Section 3. Section 4 reports and discusses results pertaining to direct analysis of the motives behind management welfare versus stockholder interest orientated resistance strategies, and whether these opposing responses are at the outset priced differently by the market and simultaneously pre-empt the structure of initial takeover bids. The findings and implications relating to the conditional impact of entrenchment and information leakage resistance strategies on target stockholder and incumbent manager outcomes in takeover bids are addressed in Section 5. Finally, Section 6 concludes.

## **2. Limitations of the Extant Research**

There has long been a heated debate about the motives behind the potentially defensive manoeuvres made by managers in response to competitive pressure from the market for corporate

control.<sup>10</sup> A fervent interest in this matter is understandable because if such actions are intended to categorically impede the process of natural selection among competing management teams then this threatens the efficient functioning of the market for corporate control in ultimately being able to facilitate the allocation of limited resources to their most productive uses.

Hypothetical explanations for what induces managers to resist takeover bids (or to proactively adopt mechanisms labelled as ‘shark repellents’) are espoused from either an information asymmetry perspective or an agency theoretic standpoint.<sup>11</sup> The ‘stockholder interest’ hypothesis proposes that managers resist bids because they have supreme information about the true worth of the firms under their direct control and therefore want a takeover premium more closely reflecting this ‘insider’ valuation. Hence, managers signal value relevant information to (latent multiple) bidding firms, as well as to their stockholders, by sincerely resisting takeover offers. The crux of the ‘information leakage’ sub theory is that bid resistance affords target managers more bargaining power and time to achieve a takeover outcome that is bona fide in the best interests of their stockholders.

The opposing hypothesis theorises that managers resist bids to deliberately avoid being taken over because as the agents of firms they are ultimately concerned about the likely effects on their own welfare (that is, immediate removal from office and the present value loss of future compensation, perks, and prerequisites; forfeiture of future utility because of reduced reputation in the managerial labour market), and not that of their principals (stockholders), should takeovers be completed. To the possible detriment of their stockholders, managers therefore seek to entrench themselves by resisting takeover bids.<sup>12</sup> A large degree of separation between ownership claims (of principals) and direct control rights (of agents), generally characteristic of firms listed on the financial markets of Anglo Saxon countries, both causes and makes it feasible for managers to place their human capital interests ahead of their stockholders’ welfare when faced with the threat of takeover.<sup>13</sup>

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<sup>10</sup> The academic discussion evolved proper on the publication in 1983 of a special issue of the Journal of Financial Economics (Vol. 11) on the market for corporate control and has lately been fuelled by Harvard Law Professor Lucian Bebchuk’s thesis on why managers should be prevented from responding other than passively to takeover bids (see, especially, Bebchuk, 2002). The continued relevance of the academic debate is starkly illustrated by the political dispute that recently persisted in the European Union before the member states reached less than harmonious agreement on the extent to which ‘anti-takeover’ mechanisms and bid resistance tactics should be regulated through a European takeover directive.

<sup>11</sup> The contradictory arguments to account for the creation of such friction in the market for corporate control are discussed in, for example, Jensen and Ruback (1983) and Jarrell, Brickley and Netter (1988).

<sup>12</sup> This ‘management welfare cum entrenchment’ argument is only truly pertinent when managers resist bids because they perceive the correction of managerial misguidance as being the most compelling reason for takeovers. The ‘disciplinary’ theory of corporate takeovers is traceable to Manne (1965), but Morck, Shleifer and Vishny (1988) are the first to formally connect the hypothesis to bid hostility (resistance).

<sup>13</sup> See Jensen and Meckling (1976) for a general formulation of the basic corporate agency problem.

While extensive and contributory to an understanding of what prompts the potentially defensive ploys of managers in the market for corporate control, research testing the stockholder interest and management welfare hypotheses is suppressed by a ‘double pronged’ design limitation. One substantial body of work investigates individual ‘shark repellents’ and takeover bid resistance tactics to determine whether such activity by managers is generally either information leakage (stockholder welfare) orientated or management entrenchment (welfare) motivated.<sup>14</sup> These studies offer innately vacuous insights into a research question that demands an all encompassing treatment because by focusing on one particular management manoeuvre it is not feasible to account for the influence of a full array of possible actions on their potentially defensive strategies in the market for corporate control. For example, to properly differentiate between pro-stockholder and pro-manager primary reasons for the adoption of ‘poison pills’ (which can have the effect of making takeover bids too costly to complete) requires a control group of firms characterised not only by the absence of this particular device but also of any other potentially defensive tactics.<sup>15</sup>

Moreover, much of this work in concentrating on proactive (‘anti-takeover’) mechanisms assesses the stockholder interest and management welfare theories outside the ultimate context in which managers actually resist bids. This is an important oversight because ‘shark repellents’ do not appear to deter the initiation of corporate control events (see, especially, Comment and Schwert, 1995), but mainly because the potential for a conflict of interests between stockholders and managers is likely to be greatest when the welfare of the latter party is threatened by the immediacy of a real takeover bid.<sup>16</sup>

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<sup>14</sup> The early stages of this work are comprehensively reviewed in Jarrell et al (1988) and mainly comprise studies analysing abnormal stock returns around the adoption of a specific ‘shark repellent’ or bid resistance tactic selected from among the numerous options available to U.S. firms. To disentangle potentially conflicting signals precipitating the mixed stockholder wealth effects, the research progressed to considering the influence of internal control mechanisms on such incumbent management actions. Active monitoring by outside stockholders (see, especially, Brickley, Lease and Smith, 1988; Agrawal and Mandelkar, 1990), management ownership (see, especially, McWilliams, 1990), and independent board structures (see, especially, Brickley, Coles and Terry, 1994; McWilliams and Sen, 1997) have all been found to be perceived by the market as leading to the application of anti-takeover mechanisms and bid resistance tactics in ways less conducive with favouring the welfare of incumbent managers. As such, this more recent empirical work gives credence to the management entrenchment hypothesis. However, little is known about how these internal control mechanisms differentiate between adopting and non-adopting firms. An exception, and therefore the paper from this body of work with the most relevance to this study, is Heron and Lie (2006), which comprehensively focuses on the motives and outcomes of isolated takeover defences during actual control attempts. They find evidence to support both the information leakage and management entrenchment hypotheses.

<sup>15</sup> In their study of poison pills and defensive payouts, Heron and Lie (2006) choose to model the likelihood that target firms adopt poison pills such that non-adopting targets include firms announcing defensive payouts, and vice versa. Although in each regression they control for the other defence, with the exception of ‘staggered boards’, no account is taken of any other ‘shark repellents’ or potentially trenchant resistance tactics represented in their sample of takeover bids.

<sup>16</sup> Notwithstanding the evidence provided by Comment and Schwert (1995), staggered board elections have recently been shown to be a potent anti-takeover mechanism (see, especially, Bebchuk and Cohen, 2005).

Although the other significant body of work examines the relevance of the information leakage and management entrenchment hypotheses within the parameters of hostile (resisted) takeover bids, this focal point of the research is also repressed by an over simplified design. For these studies, the antecedent is the accepted practice of generalising bid resistance to initial management rejection, since such a superficial approach completely ignores fundamental information about the multitudinous tactics available to managers when reacting to takeover offers and, hence, how their opposition strategies are shaped in potentially divergent ways. The upshot of this methodological confinement is that the same rationale is inappropriately assumed for, as an example, a resistance strategy that amounts to the rejection of an initial offer only as distinct from one where the managers subsequently resort to a ‘poison pill’ defensive tactic to avoid being taken over no matter what the final bid premium.

This, in turn, means that the pro-stockholder versus pro-manager insights harboured from these studies are likely to be clouded by the counteracting effects caused by a research design that blends together the opposing hypothetical explanations for management resistance to takeover bids. This issue of spurious inferences is possibly further confounded by the need to tease out the more probable, homogeneous reason for bid resistance using control firms (be they non-targets or, more obviously, non-management-resisting targets) that are prone to adverse selection. For example, a reverse implication of the information leakage rationale for takeover bid resistance is that a passive management response strategy may not necessarily be in the best interests of stockholders. The shortcomings of these studies may account for the stockholder interest and management welfare theories receiving mixed support.<sup>17</sup>

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<sup>17</sup> The competing information leakage and entrenchment hypotheses have been empirically investigated from subtly different perspectives: hostile bids, and overall management resistance to actual control attempts. Empirical studies of hostile takeovers focus heavily on the widely perceived notion that such bids are initiated for the purpose of correcting managerial failure. In general, these studies (see, especially, Franks and Mayer, 1996; Schwert, 2000) do not find a significant inverse relationship between the hostility of corporate takeovers and the pre-bid performance (measured using various bases) of target firms. This provides support for the information leakage hypothesis to the extent that hostile takeovers and management resistance are interchangeable. More robust evidence in favour of the information leakage hypothesis is provided by Kini, Kracaw and Mian (2004) in observing an inconsistent three-way association between the removal of top incumbent managers after successful control attempts, the hostility of corporate takeovers, and the pre-bid performance of target firms. Notwithstanding this lack of support for the management entrenchment hypothesis, Shivdasani (1993) finds that the effectiveness of internal and external control structures of target firms is an important determinant of hostile takeovers. Moreover, empirical studies of overall management resistance to actual control attempts appear to corroborate much of the evidence on isolated takeover defences (summarised in footnote 14): managers are less likely to resist bids the more closely aligned are their own wealth effects to those of stockholders (see, especially, Walkling and Long, 1984; Cotter and Zenner, 1994); target stockholder gains are more pronounced for resisting firms with a majority of independent outside directors (see, especially, Cotter, Shivdasani and Zenner, 1997). Unique to this perspective, however, is the finding that the initial structure of takeover bids (offer premium; stock toehold) is also relevant in determining overall management resistance (see, especially, Jennings and Mazzeo, 1993). This raises a potentially interdependent research question concerning the possibility that target firm characteristics related to overall management resistance also effect decisions about the form (bypass or negotiated offer), and structure, of initial takeover bids. Bange and Mazzeo (2004) find credence for this issue of pre-emptive bidding tactics.

By addressing the above design limitations, this study in considering the motives inducing management actions that may be taken in defence of takeover bids contributes to the extant research in some important and interdependent ways. Substantively, such managerial behaviour is investigated in response to the immediacy of takeover bids using a methodology directly formulated around the heterogeneous reasoning espoused for the divergent stockholder interest and management welfare hypotheses.

Using a comprehensive set of firm and bid characteristics, this study specifically examines whether resistance strategies that are management entrenchment motivated are systemically distinguishable from ones that only benefit stockholders through information leakage in the course of takeover contests. In effect, this amounts to an unequivocal test of the plausibility for having opposing theories behind the decision by managers to resist takeover bids. As previously explained, such an unbiased evaluation is not possible when conventionally generalising bid resistance (hostility) to initial rejection because conclusions about the management welfare and stockholder interest hypotheses then depend on the balance of probabilities (as is alluded to in Schwert, 2000).

A significant interrelated contribution of this study is the necessity to examine the precise composition of opposition tactics employed throughout the duration of takeover bids. A complete tactical information set, rather than solely relying on whether managers either reject takeover bids through to resolution (as is case, for example, in Franks and Mayer, 1996) or use individually selected tactics (as is the focus, for example, in Heron and Lie, 2006), is fundamental for systematically classifying resistance strategies in accordance with the principles belying the stockholder interest and management welfare hypotheses.<sup>18</sup>

Pivotal to the categorisation process is the specification of bid resistance strategies that are management entrenchment motivated. Because of the absence of a generally accepted classification framework and the potentially conflicting signals causing the mixed valuation effects for specific bid resistance tactics, this study defines management entrenchment strategies as ones involving measures that are inherently counter evasive and hence potentially detrimental to stockholder interests. This definition of management entrenchment resistance broadly encompasses all forms of defensive restructuring to the real assets, equity/ownership structure, or charter arrangements of firms. In the study, bid resistance strategies are otherwise deemed to be information leakage orientated and to directly benefit stockholders through any of the following non-trenchant bargaining/holdout tactics:

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<sup>18</sup> If the basis for distinguishing between entrenchment and information leakage resistance strategies is restricted to whether managers reject bids through to resolution then, pertinently, Arcelor's recent takeover defence against Mittal Steel (as discussed in the opening to the Introduction) would be incorrectly classified as stockholder interest orientated.

public opposition; value relevant financial disclosure (profit and dividend forecasts, asset revaluations); appeals to the regulatory authorities; and third party bidder solicitation.

Crucially, the robust categorisation system is designed to consistently classify non-mutually-exclusive resistance strategies as management entrenchment motivated. This study is therefore able to consider two different perspectives on the ethos of bidder solicitation: either, as is the popular notion, this bid resistance tactic is used as a defence of last resort, or ‘white knight’, in management entrenchment strategies; or it is from the outset a purely information leakage measure.

### **3. Sample, Methods and Variables**

#### **3.1 *Publicly resisted takeover bids***

This study uses a sample drawn from the population of hostile/unsolicited bids for U.K. public firms in the period 1989-03 because of the setting specific reasons promulgated when motivating the research in the Introduction. Using initial reception and eventual value data (obtained from Acquisitions Monthly/S.D.C. Platinum Mergers and Acquisition Database) for all U.K. public bids, Table 1 and Figure 1 show the proportionate magnitude of hostile/unsolicited takeover activity during the analysis period.

Overall, 13.7 percent of the 1948 completed/failed takeover bids are classified as hostile/unsolicited. However, this relative frequency substantially understates the economic importance of hostile/unsolicited takeover activity in the study period because such bids account for 28.9 percent of the £781 billion total real (2003 based) worth of final offer values. Thus, in general, hostile/unsolicited bids are characterised by larger targets (by association, firms with a greater natural, relative size, barrier for resisting such advances) compared to takeover offers made with the express backing of incumbent boards.

Although hostile/unsolicited takeover activity is consequential in the U.K. over the sample timeframe, it is immediately noticeable that such bids become proportionately less significant once into the sub-period 1997-03. Figuratively, the percentage incidence and value of hostile/unsolicited bids decline by 8.1 and 23.5 basis points, respectively, relative to the earlier sub-timeframe, 1989-96. Therefore, bidders are comparatively more successful in initiating friendly takeover attempts in the later part of the analysis period. It may be that in an attempt to keep takeover costs suppressed bidders have a relatively greater inducement to approach and bargain with target boards in this sub-period. This might emanate from U.K. firms generally having internal governance structures increasingly independent of management by this time (due in part, at least, to regulatory changes primarily

originating from recommendations made in the Cadbury Report), which makes incumbent boards inherently more conducive to effective negotiation.<sup>19</sup> Evidence to support such a conjecture is provided in Section 3.4.

Crucially, in contrast to the mitigating situation in the U.S., the comparative decline of hostile/unsolicited takeover activity cannot be attributed to ‘poison pills’, and other amendments to firms’ charters, making offers that bypass incumbent boards too costly to initiate. This is because the framework regulating the U.K. market for corporate control has consistently stifled the use of such bid repellents.<sup>20</sup>

The population of hostile/unsolicited bids for U.K. public firms in the period 1989-03 is screened (using the Corporate Register) to exclude takeover targets without full listings, and also those primarily affiliated to the financial/real estate, utility/telecommunication, public transport, broadcasting, and newspaper industries.<sup>21</sup> These selection criteria ensure a relatively homogenous sample of hostile/unsolicited takeover bids in terms of disclosure requirements and the degree of regulation imposed to protect the public interest.

Furthermore, it is verified that the takeover sample only includes hostile/unsolicited bids that are publicly rejected (as reported to the Regulatory News Service), be it, at least, for the face value reasons of price and/or strategy, after bypassing incumbent boards. As is a problem with all resistance studies, less stringent reporting requirements during unofficial bid periods prevent the systematic inclusion of hostile/unsolicited takeover attempts that do not lead to bypass offers. Notwithstanding this design limitation, an unmitigated decoupling of the conflicting motives behind takeover bid resistance necessitates the actions of target boards being consistently observable, which, indeed, they are in full over the duration of bypass offers.

In this study, a publicly resisted (rejected) bid is the first takeover attempt for a particular target firm to be formally initiated within a period of at least one year. Moreover, a publicly resisted takeover attempt accounts for all subsequent offers, including those from third parties, officially announced up to one year after the resolution of the originating bid. This process of combining multiple bids with relatively short separation periods seeks to ensure that the motives inducing the resistance strategies of

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<sup>19</sup> See footnote 9.

<sup>20</sup> See footnote 7.

<sup>21</sup> In the case of the beginning year of the study timeframe, only takeover bids announced in the second half of 1989 are screened for inclusion in the sample. This is because the Corporate Register, later an important information source on directorships, was first published from April 1989 (thereafter at least bi-annually).

any duplicated target firms are sufficiently independently determined. The resulting sample comprises 121 publicly resisted takeover bids for 120 unique target firms.<sup>22</sup>

### ***3.2 Entrenchment and information leakage bid resistance strategies***

This study uses a method to systematically impute inherent motives for bid resistance from investigating the specific tactics employed by incumbent boards over the duration of publicly contested takeover attempts. Motives and, hence, induced resistance strategies are differentiated based on the polar rationales for explaining opposition to takeover bids by incumbent boards.

Hypothetically, target boards resist takeover attempts for entrenchment reasons because the personal welfare consequences of being acquired override their fiduciary responsibilities for safeguarding stockholder interests. Thus, when their primary intent for opposing takeover bids is to evade removal from positions of power, and to prevent an inevitable, adverse ex-post settling-up of direct and indirect benefits accruing from office, incumbent boards are expected to react with entrenchment enhancing resistance measures. Intuitively, such opposition tactics would encompass all types of corporate restructuring that either deliberately reduce the attractiveness of target firms in terms of expected acquisition gains, or that intentionally create obstacles to make it more difficult for takeover attempts to succeed. These corporate restructuring measures would be counter disciplinary to the extent that incumbent boards have real reason to fear takeover bids as being driven by the need to replace their ineffective firm leadership.

In the analysis period, target boards propose (as reported to the Regulatory News Service) the following forms of corporate restructuring to counteract takeover bids:

- Spin-offs/sell-offs, which are divestments that deny bidders access to assets of value from cash flow ('crown jewel') or break-up perspectives.
- Mergers/acquisitions/joint ventures, which entail amalgamations that make target firms cumbersome to acquire on size, strategic, and antitrust grounds, or, in the extreme case of counter takeover ('pac-man') attempts, eliminate bidders directly.
- Stock repurchases/ special dividends, which involve exceptional payouts to nullify bidders' plans for the efficient utilisation of excess cash, and, in the case of targeted repurchases, that increase the proportion of stock under friendly holders' control.

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<sup>22</sup> The only duplicated target firm is Owners Abroad Group/ First Choice Holidays, where the originating bids are separated by more than 6 years.

- ‘White squires’, which thwart takeover attempts by soliciting friendly third parties to acquire strategic only blocking stakes.
- Going private transactions, which use competing management buyouts to create costly bidding contests, and the resulting private control to prevent further unwanted takeover attempts.
- Management changes, which make removal of newly appointed officers especially costly because of special contractual payments (golden parachutes) triggered by takeovers.

Incumbent boards that oppose takeover bids by resorting to at least one of the above tactics are deemed to have entrenchment motivated resistance strategies. Corroboratively, but notwithstanding the problem of potentially confounding events during takeover bids, research by Dann and DeAngelo (1988) reveals that target stockholders react adversely, and significantly, to announcements pertaining to these defensive types of corporate restructuring. That some entrenchment resisting target boards end up capitulating to higher offers from bidders they originally vehemently oppose, or soliciting friendlier third party (white knight) takeover attempts as a defence of last resort, does not alter their underlying motives and treatment in this study. This ex-ante classification process is therefore able to unambiguously identify bid resistance strategies that are entrenchment orientated.

By default, target boards that refrain from using entrenchment measures when opposing takeover bids are inferred to have information leakage motivated resistance strategies. Theoretically, incumbent boards resist takeover bids for information leakage purposes because their unequivocal stewardship of stockholder wealth means securing correctly informed valuations for target firms. Therefore, when their intent is to legitimately resolve asymmetry problems caused by bidders being less well informed about the true worth of target firms, incumbent boards are predicted to respond with resistance tactics that enhance the leakage of value relevant information, and hence, fundamentally, their relative bargaining positions, during the course of takeover bids.

Intuitively, such opposition would encompass the following, direct and bid timetable delaying, measures to aid in justifying and communicating higher target firm valuations: releasing new financial/strategic information; attacking offer prices and rationales; lobbying significant stockholders; soliciting third party takeover attempts; and making appeals to various regulatory authorities. In the study period, although entrenchment resisting target boards may also utilise this class of tactics, these are, in a defining way, the only measures used by their information leakage counterparts.<sup>23</sup>

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<sup>23</sup> A detailed discussion of resistance tactics is provided in Bruner (2004, Ch. 33). For the purpose of systematically classifying U.K. target management resistance as either information leakage orientated or entrenchment motivated it is

For the 121 publicly rejected takeover attempts of interest in this study, the above method of tactically imputing intrinsic motives behind bid resistance results in 44 percent of the incumbent boards having opposition strategies that are entrenchment orientated. Thus, information leakage resisting target boards are slightly in the majority. Because incumbent boards do not appear to have a prevailing motivation for resisting takeover bids in the sample timeframe, treating their opposition strategies homogenously (the norm with extant research, as discussed at length in Section 2) would likely exacerbate the potential for misleading inferences.

However, Table 2, Panel A, also reveals that the relative rate at which target boards deploy entrenchment resistance tactics varies measurably between the analysis sub-periods. The proportion of entrenchment resisting incumbent boards increases from 36 percent in the 1989-96 sub-period to 55 percent in the 1997-03 sub-timeframe. These proportions are statistically different at greater than the 5 percent significance level. Given that the later sub-timeframe is characterised by a decline in hostile/unsolicited bid activity (as discussed in the previous sub-section), a concomitant, proportionate downturn in the use of information leakage resistance strategies by target boards is consistent with relatively more takeover attempts, potentially facing opposition of this form in the public arena, being successfully negotiated prior to formal announcement than compared to the 1989-96 period.

Panel A of Table 2 presents other sample results that accord with a relative disappearance of post-bid, and hence publicly observable, information leakage resistance strategies in later half of the study period. The percentage of incumbent boards directly soliciting third party takeover attempts (as reported to the Regulatory News Service) in the 1997-03 period is significantly (in excess of the 99 percent confidence level) higher than the equivalent figure for the earlier sub-timeframe. This points to the takeover market being relatively more competitive in the later half of the sample timeframe, and as has been suggested by Boone and Mulherin (2007) publicly observable competition is likely to represent only the tip of the iceberg. Also, the proportion of target boards releasing credibly higher (defined as at least 10 percent) profit reports (again, as disclosed to the Regulatory News Service) in opposing takeover offers declines significantly in the relatively more entrenchment orientated 1997-03 sub-period. As is reasoned above, this bid resistance measure, like third party bidder solicitation, is inherently information leakage orientated.

Moreover, there is no meaningful difference across the analysis sub-periods in the relative rates at which incumbent boards initiate any corporate restructurings (including management changes) in the year before either commencement of formal bid proceedings or any associated rumours of impending

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necessary to analyse the full text of every announcement lodged with the Regulatory News Service (of the London Stock Exchange) for each takeover bid included in the final sample.

takeover attempts. This suggests that the changing underlying nature of bid resistance strategies during the sample timeframe is unlikely the result of temporal variations in the tendencies of boards to use potentially proactive entrenchment tactics.

The relative frequency with which specific entrenchment resistance tactics are deployed in the sample timeframe is shown in Table 2, Panel B. Spin-offs/sell-offs are, by far, the most commonly employed measures, with defensive divestment proposals being reported by approximately half of the 53 entrenchment resisting target boards. 32.1 percent of these incumbent boards also favour entrenchment opposition strategies that entail mergers/acquisitions/joint ventures, and a reasonably high proportion (15.1 percent) make stock repurchases/ special dividends. In comparison, going private transactions, management changes, and white squires are resorted to infrequently (less than 10 percent in each case) by entrenchment resisting target boards. On average, 1.2 different and independent entrenchment resistance tactics are used by incumbent boards with such inclinations for opposing takeover bids.

Panel B of Table 2 also reveals that target boards have a differential propensity for utilising certain entrenchment resistance measures within the analysis sub-periods. In the period 1997-03, the proportion of entrenchment resisting incumbent boards reacting with spin-offs/sell-offs drops by 24.5 basis points from a 1989-96 level of 61.5 percent. In contrast, there is nearly a trebling in the incidences of stock repurchases/ special dividends to account for 22.2 percent of unique entrenchment opposition cases in the later period. Thus, while the top end ranking of entrenchment resistance tactics is the same in both sub-timeframes, a more even distribution across these defensive measures is observed in the 1997-03 period. Of the lower positioned entrenchment opposition tactics, going private transactions are the only type to be employed by target boards at substantially different rates in the sub-timeframes, with percentage of cases nearly quadrupling in the 1997-03 period. These sub-period trends in the deployment of spin-offs/sell-offs and stock repurchases/ special dividends, especially, as entrenchment resistance measures are generally reflective of the changes observed for these corporate restructuring methods outside the context of takeover bids.

### ***3.3 Differentiating between entrenchment and information leakage bid resistance strategies***

Having used the above method to impute entrenchment or information leakage motives for the incumbent boards resisting takeover bids in the sample timeframe, it is hypothesised that certain target firm and initial offer characteristics will furnish cogent insights in to the divergent impetuses inducing the predicted, mutually exclusive opposition strategies. These firm and event specific factors are

largely influenced by the extant research. However, the design of this study ensures that the conventional explanatory variables afford neither an extremely generalised understanding of bid resistance, caused by lumping together opposition strategies and hence underlying motives, nor a blinkered insight in to the use of individual (and primarily proactive) defensive measures. The proxy factors for directly distinguishing between entrenchment and information leakage bid resistance strategies capture the following target firm and initial offer characteristics:

- Control/wealth stakes of incumbent top managers, and other personal incentives emanating from their ages.
- Ownership claims of the other directors, and the independence and sizes of target boards, which may affect incitements and ability to perform their stewardship function before and after the initiation of takeover bids.
- Block stockholdings outside the domain of incumbent boards, the concentration of which potentially influences active external corporate control prior to and around takeover attempts.
- Pre-bid performance and financial positions of target firms, and the quality of this, and other strategic revealing, information.
- Premiums and forms of consideration proposed, and approach to incumbent boards and toehold interests, all of which, through bidder choice, determine the structure and nature of initial offers.

Target boards are less inclined to resist bids per se the greater are the potential net wealth gains for managers from takeovers (see, especially, Walkling and Long, 1984; Cotter and Zenner, 1994). Cotter and Zenner (1994) additionally observe (the fraction and worth of) managerial ownership as the driving force behind such a relationship, finding that this component of incumbents' bid induced personal wealth effects dominates even the present value of their lost compensation from possibly being out of office should takeovers succeed. If anti-resistance is conventionally treated as the only pro-stockholder response to takeover bids, this commonly replicated result implies support for the age-old theory concerning the importance of managerial ownership in directly aligning principal agent interests.

However, unequivocal endorsement of the alignment hypothesis depends on whether managerial ownership discourages entrenchment motivated bid resistance in favour of opposition strategies that are information leakage, and hence inherently stockholder welfare, orientated. Yet, according to the arguments of Stulz (1988), framed in the specific context of takeover bid resistance, an

equally plausible consequence is for the ownership stakes of managers to ingratiate and facilitate entrenchment, which ultimately gives them credible means of extracting private benefits of control. In modelling the choice between entrenchment and information leakage bid resistance strategies, the percentage of outstanding stock in which the most influential, and hence relevant, target officer has a beneficial interest is used as the primary means of empirically capturing these conflicting managerial ownership effects.<sup>24</sup>

Chief executive officer (C.E.O.) age is positively related to target board propensity for resisting takeover bids, although this significant personal incentive effect reverses for much older top managers (Buchholtz and Ribbens, 1994). The age factor is likely to capture top managers' perceptions of their post-takeover employment prospects in the C.E.O. labour market, with job security ordinarily dominating a forced career mobility opportunity for increasingly older head executives, except those approaching (or even beyond) normal retirement for whom, intuitively, such entrenchment considerations generally have decreasing importance with years. These non-linear entrenchment implications of C.E.O. age are expected to be especially pronounced in directly isolating the motives for such an opposition strategy from a purely information leakage one. A first and second order C.E.O. age term is therefore used in the resistance models to follow.<sup>25</sup>

Responsibility for ensuring that top managers pursue strategies directly benefiting stockholders is vested first and foremost with the board of directors. Conventional wisdom suggests that the monitoring capability of boards is affected both by the personal wealth incentives directors have for performing such an oversight function, and by their independence from the subjects being overseen.

As for C.E.O.s, beneficial ownership by other directors has the alignment potential to reinforce their obligation of ensuring that firms are managed in stockholder interests. However, because these other directors generally do not have their human capital exposed to the extreme degree of firm specific risk as do top managers, and as they are normally not in an equally conducive position for extracting private benefits of control, their equity stakes are relatively less likely to incite entrenchment behaviour. Hostile takeover bids represent ideal events for investigating the nuances of isolating C.E.O. ownership from that of the remainder of the board, and particularly if the analysis is elevated to considering the choice of management resistance strategy posed by the immediate threat of being removed from office. The percentage of outstanding equity in which directors other than the C.E.O.

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<sup>24</sup> Identification of the most influential target officer is based on title, and, if no officer carries the title 'Chief Executive', also on compensation.

<sup>25</sup> The age of target C.E.O.s at bid announcement is obtained from the Corporate Register, and, where necessary, directly from annual returns lodged with Companies House.

have a non-duplicated beneficial interest is the main proxy for direct alignment between the board and stockholders.

Directors with weak ties to stockholders through equity ownership may nevertheless serve the interests of firms' principals, ahead of those of the agents, if the board is sufficiently independent.<sup>26</sup> In both the academic and regulatory settings, directors are broadly deemed to be autonomous when no discernable personal, employment, or business connections to top managers/ the firms on which boards they reside can potentially cloud their oversight judgements. However, independence is raised to a higher echelon when such individuals already serve on the boards of more than one firm because this, in turn, provides a real incentive for non-aligned board members to fulfil their stewardship role in order to continue building reputation capital in the directorial labour market.<sup>27</sup>

Board autonomy is principally formulated in two alternative ways in this study. The first measure concerns board composition, which is configured as the proportion of members that are non-aligned (based on the connection types stipulated above) and holding at least one other, non-interlocking, directorship in firms subjected to the same Corporate Register screening criteria (described in Section 3.1) as were applied to the sample of resisted takeover targets.<sup>28</sup> A second board independence proxy captures, through a binary term, whether any such non-aligned and reputed director specifically serves as chairperson and hence as an autonomous leadership counterweight to the C.E.O..<sup>29</sup>

Board independence will not ordinarily be influential in conventional models of bid resistance (see, especially, Cotter, Shivdasani and Zenner, 1997) because rejection, rather than recommendation, of an initial takeover offer can be in stockholders' best interests. Instead, board autonomy is likely to come to the fore when explaining the nature of ensuing resistance and, specifically, in differentiating between management entrenchment and stockholder welfare motivated strategies. All else being equal, the more independent are resisting target boards the greater is their inducement and power to disenfranchise management from resorting to entrenchment orientated opposition tactics.

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<sup>26</sup> See footnote 8.

<sup>27</sup> The potential importance of independent directors gaining incentives from their reputation in the directorial labour market has been demonstrated in a general setting by Kaplan and Reishus (1990), and by Shivdasani (1993) in the specific context of takeovers. Shivdasani finds that although the proportion of independent directors does not differ noticeably between the boards of hostile targets and non-targets, the target directors have significantly less reputation capital at stake in the form of other directorships.

<sup>28</sup> A non-interlocking directorship is defined as one in which the non-aligned director can serve as a C.E.O., but on whose board the target C.E.O. does not reside. Information on applicable additional directorships is obtained from the Corporate Register.

<sup>29</sup> This proxy goes further than merely accounting for the potential power problems emanating from a C.E.O. also serving as chairperson, because simply separating these influential positions does not produce an independent board leadership structure.

Personal wealth incentives and independence aside, collective director action to promote stockholder interests in the context of bid resistance, as in other latent agency conflicting corporate situations, may be inherently less effective the larger are incumbent boards.<sup>30</sup> The number of target firm directors is therefore included as an additional component of board structure potentially affecting the capacity and hence propensity for management to respond with entrenchment resistance strategies against takeover bids.

Large non-director stockholdings beyond even the indirect dominion of management can play an active role in corporate control (see, especially, Shleifer and Vishny, 1986) and ultimately facilitate hostile takeover bids (see, especially, Shivdasani, 1993). Incumbent managers' discretion to use entrenchment motivated tactics, but not necessarily to resist takeover bids per se (as is observed, for example, by Mikkelsen and Partch, 1989), may therefore be inhibited by the self-determined voting power of such blockholdings. In this study, non-aligned blockholdings are restricted to those non-target-director interests wielding at least 5 percent of total equity votes, over which top incumbent managers do not (effectively) exercise unfettered control through personal, employment, or business connections. A simple percentage based summation is used as the primary means of capturing the aggregate voting power of these blockholdings.<sup>31</sup>

Contrary to the conjectures of Morck, Shleifer and Vishny (1988) that hostile/resisted takeover bids are more disciplinary than friendly/recommended ones, Franks and Mayer (1996) and Schwert (2000), among others studies, are unable to find convincing evidence of differentially efficient target managers, as reflected in firm performance, to corroborate this association. Indeed, target management quality is only expected to be empirically prominent when fundamentally conditioning the disciplinary theory of takeovers on the nature of bid resistance. That is, entrenchment opposition strategies are more likely to be pursued by comparatively inefficient resisting managers because they will perceive a greater disciplinary threat and hence potential loss of employment related welfare. Two main and complimentary performance proxies for target management quality are used to investigate this refined connection between disciplinary takeovers and bid hostility/resistance: market to book value of the firm, and the asset turnover ratio.<sup>32</sup>

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<sup>30</sup> Bange and Mazzeo (2004) find that larger target boards are more likely to receive bypass offers than negotiated ones, evidence that accords, in spirit, with the seminal work of Yermack (1996) in observing an inverse relation between board size and firm value.

<sup>31</sup> As with the other corporate governance related proxy variables, non-aligned blockholdings are captured at the initial bid announcement date, using information contained in target company annual reports in conjunction with their relevant disclosures to the Regulatory News Service. Initial bidder toehold interests are excluded from the measure of blockholding control.

<sup>32</sup> The primary specification for both of these conventional performance measures takes the average value for the 2 financial years preceding the initial bid announcement date, but adjusting market values of equity to just before a minimum

The cost of acquiring information about target firms has been inversely linked to managers' decision to resist takeover bids (see Fishman, 1988 for a theoretical justification, and, especially, Jennings and Mazzeo, 1993 for empirical support). However, distinguishing between management entrenchment and stockholder welfare motivated resistance strategies affords a direct test of the information cost effect. Managers of firms with relatively more information in the public domain and choosing to resist takeover bids are more likely to be doing so for entrenchment reasons than their counterparts with greater scope for value relevant disclosure. Target firms flagged by the Corporate Register for having comparatively short (approximately 6 years or less), fully listed exchange tenures are deemed to have a higher cost of information acquisition.<sup>33</sup> A binary variable is used to identify such cases.

Initial bid premiums affect the propensity for resistance, with lower offers, on average, being rejected at a greater rate (see, especially, Jennings and Mazzeo, 1993). A more interesting research issue concerns how variation in initial premiums impacts on the nature of bid resistance. Resisting managers bent on entrenchment will oppose takeover bids irrespective of how high offers are initially pitched. In contrast, managers who are motivated only by stockholder welfare will resort to resistance in a concerted effort to improve the terms of relatively inferior bids. Hence, initial offer premiums may be positively related to the likelihood of management entrenchment opposition strategies. Initial bid premiums are computed as the proportionate difference between the unit offer value and the target firm's stock price, adjusted for the effects of takeover rumour.<sup>34</sup>

Initial bidders with larger pre-offer stakes encounter less resistance from target managers (see, especially, Walking and Long, 1984; Jennings and Mazzeo, 1993). Contemporaneously, and based the same reasoning espoused earlier for non-aligned blockholdings, managers that choose to resist takeover bids will find it increasingly difficult to do so for entrenchment reasons the greater is the voting power behind these toehold interests. The percentage of total equity votes controlled by initial bidders and their connected parties immediately prior to offer announcement is therefore included when modelling the choice between management entrenchment and information leakage resistance strategies. As an

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(unofficial) rumour period of 30 trading days and any official rumour period ascertained from the Regulatory News Service. Market value of assets is computed as the common stock price multiplied by the number of outstanding shares, plus the book value of non-equity securities and total debt. The book value of tangible assets (total assets minus intangibles) is used as the denominator for both performance measures. Datastream is used to compute these performance measures.

<sup>33</sup> This is similar to the exchange based proxy used by Jennings and Mazzeo (1993). Their other proxy, the number of analysts following target firms, is not consistently available over the sample timeframe for this study.

<sup>34</sup> For the case of offers involving an exchange of common stock (as established from the disclosure of initial offer terms to the Regulatory News Service), the bidder's stock price is taken 5 trading days before the bid announcement date. The bid rumour adjustment is similar to that described in footnote 32 for the target firm's market value of equity. Target and bidder firm stock prices are obtained from Datastream.

alternative proxy for the bargaining power of initial bidders (and consistent with, for example, Cotter et al, 1997), an indicator variable is used to identify cases where either the bidder already has a representative on the target board, or a dissident target director pledges support for the bidder.<sup>35</sup>

Finally, it is perhaps important not to omit from the investigation how the nature of bid resistance is affected by initial bids that offer full cash terms (including full cash alternatives to the main terms, as detailed in the bidder's Regulatory News Service disclosures), and by bidders that make genuine approaches to the target boards (defined here based on the need for disclosure to the Regulatory News Service) before launching their bids. The cash factor has been weakly associated with less bid resistance (see, especially, Jennings and Mazzeo, 1993), while bidder approach has been strongly connected to a lower propensity for opposition per se (see St-Pierre, Gagnon and Saint-Pierre, 1996).

### ***3.4 Descriptive statistics and temporal analysis for factors explaining the nature of bid resistance***

Table 3 provides means and medians for the target firm and initial offer characteristics motivated in the preceding sub-section, together with an assessment of whether these explanatory variables differ significantly between sub-periods of the 1989-03 sample timeframe, partitioned (as in Section 3.1) based on the relative intensity of hostile bid activity. Resisting chief executive officers (C.E.O.s) have a mean beneficial equity interest of 1.8 percent in their target firms' stock, although, as is the skewed norm with board ownership variables, the median stake is considerably less at only 0.1 percent. Moreover, the average and median age of C.E.O.s is a relatively career prime 52 years.

Directors in aggregate, other than C.E.O.s, have a mean and median personal (non-duplicated) stock interest of 2.2 and 0.4 percent, respectively, in the target firms they oversee. These board ownership levels mirror those for U.K. firms generally in that the stakes are substantially lower than C.E.O. and director stock interests in the U.S..<sup>36</sup> Nevertheless, the C.E.O. and other director equity stakes are significant and variable enough (standard deviations: 5.1 and 6.5 for C.E.O. and other directors, respectively) to potentially motivate the nature of bid resistance.

Independent directors with at least one other, non-interlocking, corporate seat have an average 18 percent (median 17 percent) representation on resisting boards. The proportion, while low by U.S.

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<sup>35</sup> The information necessary to construct both of these proxies is obtained from relevant disclosures to the Regulatory News Service.

<sup>36</sup> In Cotter and Zenner (1994), for example, the average and median ownership of the top executive in their U.S. hostile target sub-sample (for the period 1988-91) is 3.6 and 1.2 percent, respectively. Shivdasani (1993) reports correspondingly lower figures of 2.0 and 0.7 percent for his hostile targets sub-sample for U.S. takeovers from an earlier (1980-88) time period.

comparison, is in line with the post-Cadbury revised recommendations (applicable to the end of the sample timeframe) that U.K. boards should be comprised of at least one third non-executive directors, 50 percent or more of whom should be independent and reputed.<sup>37</sup> Furthermore, U.K. boards generally have a more pronounced incidence of C.E.O. and chairperson separation relative to their U.S. counterparts, which potentially harks to a degree of substitutability between these elements of board structure.

Indeed, the alternative measure of board independence used in this study concerns leadership structure rather than composition. 35 percent of resisting boards have an independent chairperson with at least one other, non-interlocking, directorship. Unsurprisingly, these two proxies for board independence have a high Pearson correlation of 0.56. To complete the board picture, the mean (and median) number of directors comprising resisting boards is 7 members, including the C.E.O..

Non-director-aligned 5 percent or more blockholdings control an average 29 percent (median 30 percent) of target firm votes, which makes them a potentially potent force in influencing bid resistance strategies.<sup>38</sup> Also, the mean bidder toehold is a threatening 8 percent, although at the median no votes are controlled by the initial suitor immediately prior to offer announcement. Only 12 percent of resisting boards have a director appointed by the initial bidder, or a dissident member in direct conflict with their colleagues in pledging support for the first offeror. These alternative measures capturing the power of initial hostile bidders over the resistance strategy decision register a strong correlation of 0.62.

Average and median statistics for the management performance proxies reveal that, for the two year period preceding the rumours of initial takeover bids, resisting firms have assets valued by the market at a premium to tangible book worth (mean 1.3, median 1.2), and are generating levels of turnover in excess of tangible assets (mean 1.4, median 1.3). 17 percent of the target firms have a flagged status in the Corporate Register for having been fully listed for a comparatively short period of no more than 6 years. The cost of acquiring sufficient information about these targets is therefore likely to be higher compared to other resisting firms.

Turning to initial bid characteristics, rumour adjusted initial bid premiums are in the typically high reported range (mean and median 0.3) for target stockholders to benefit substantially from expected takeover gains. Furthermore, an expectedly large majority (69 percent) of resisted bids offer

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<sup>37</sup> Shivdasani (1993), for example, reports that a mean and median 44 and 46 percent, respectively, of outside directors on the boards of his hostile target sub-sample (for U.S. takeovers from the 1980-88 period) hold additional outside directorships.

<sup>38</sup> These non-affiliated blockholding percentages are noticeably smaller than, for example, those for the hostile target sub-sample in Shivdasani (1993), for U.S. takeovers from the 1980-88 period. This is indicative of U.K. firms generally being characterised by a greater concentration of outside control compared to their U.S. counterparts.

full cash terms at the outset, and a surprisingly high 29 percent of bids involve the initial bidder approaching the target board before resorting to a by-pass takeover attempt.

Although not tabulated, each of the target firm and initial offer characteristics vary across the sample of resisted takeover bids to a degree that strengthens justification for inclusion in the cross-sectional models to follow in the next section. Moreover, none of the unreported correlations (not tabulated) between the explanatory variables are of a size and nature warranting additional investigation. Finally, the 2-sample t-test and z-test analyses displayed in Table 3 reveal that only the board independence factor based on composition, and the indicator variable for initial bidder approach, vary between the sub-timeframes of the sample period with a level of significance in excess of 1 percent.

There is a 1.6 fold increase in the mean representation of independent directors, with at least one other non-interlocking corporate seat, on the boards of resisting targets when moving from the more (1989-96) to the less (1997-03) active hostile bid period. Such a trend is consistent with the overall structure of U.K. boards having changed significantly since the listing rules incorporated the recommendations on best corporate governance practice initially laid down by the Cadbury Report for financial year ends after 30 June 1993. This finding also helps to explain the observation in Section 3.2 that a relatively smaller percentage of takeover offers are publicly resisted for pure information leakage purposes in the proportionately more subdued 1997-03 period of hostile bid activity. That is, a greater degree of board independence, in general, in the later sub-period of the sample timeframe may have made it easier for would-be acquirers to privately negotiate agreed deals with incumbent directors. This circumstantial association is consistent with the findings of Bange and Mazzeo (2004). In the same vein, the changing structure of U.K. boards may also account for the significant increase in the instances (19 to 43 percent) of initial bidders approaching target boards before resorting to by-pass bids.

It is interesting to note that the alternative board independence variable configured on leadership structure shows no significant variation between the sample sub-timeframes. However, corporate governance best practice in the U.K. has always been limited to recommending that the positions of C.E.O. and board chairperson not be held by the same individual. The result is that there is somewhat more corporate discretion as to whether board heads should themselves be independent and have reputation at stake in the directorial labour market. Finally, non-aligned blockholdings increase significantly (albeit at the 5 percent level only) across the sub-periods of the sample timeframe, reinforcing a trend toward stronger firm level corporate governance mechanisms in the later, and relatively less active, hostile bid sub-timeframe.

## 4. Multivariate Analysis of the Motives behind Takeover Bid Resistance Strategies

### 4.1 *Modelling the likelihood of management entrenchment versus information leakage resistance strategies*

Target firm and initial offer characteristics configured in Section 3.3 are investigated in a multivariate, cross-sectional framework to ascertain whether these factors are able to capture a differential tendency for incumbent boards to deploy entrenchment motivated resistance strategies instead of ones that are information leakage orientated, as tactically distinguished in Section 3.2. A binary qualitative response variable, with information leakage resistance as the reference case, is modelled using logistic regression in order to more easily estimate the odds of the publicly resisted takeover bids being opposed for reasons of managers', rather than stockholders', welfare.<sup>39</sup> Results for these regressions are presented in Table 4.<sup>40</sup> The sample size is reduced from 121 to 114 bids in each model because of missing observations.

The reported models include a number of control variables that contribute explanatory power (as measured in logistic regressions by significant changes in log-likelihood), and that permit inferences to be drawn about the observed effects of the main explanatory factors non-misconstrued by important omitted covariates. The first of these control variables is the cumulative market adjusted return over the 12 month period ending 30 trading days either prior to the earliest Regulatory News Service release concerning bid rumour, or the initial offer announcement if there is no formal disclosure anticipating a takeover attempt.<sup>41</sup> This variable is intended to capture any takeover related run-up in abnormal stock returns omitted by focusing only on bid rumours substantiated by the parties concerned. It is found that a more pronounced, sustained run-up is positively related (albeit not significantly) to the likelihood of an entrenchment resistance strategy, perhaps because this movement in abnormal stock returns reflects the persistent expected gains from disciplining inefficient target managers.<sup>42</sup>

A second, and factor, covariate identifies takeover bids that are publicly resisted in the relatively more active hostile bid period (1989-96) of the sample timeframe. The temporal importance of this control variable was highlighted in Sections 3.2 and 3.4, which is reinforced in the regression

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<sup>39</sup> The models to follow in this sub-section are robust to also using the probit response function.

<sup>40</sup> A constant term is included in each of the models, but these are not tabulated for reasons of conciseness. The same applies to all other reported regressions in this study.

<sup>41</sup> Daily data (from Datastream) is used, and the FT-SE All Share index is taken as the market return.

<sup>42</sup> Schwert (2000) finds mixed results when relating his various general measures of hostility/resistance to the pre-bid run-up in stock returns.

analysis by a negative coefficient that is statistically different from zero in excess of the 1 percent significance level. Taking the exponential value of the coefficients for this covariate across the relevant model reveals that the odds of a takeover bid being resisted for management entrenchment reasons are 88 percent higher in the later, and less active, hostile bid period. Finally, a series of factor variables are included in the models to control for differences in the nature of bid resistance across the four London Stock Exchange economic sectors (resources/basic industries, general industrials, consumer goods, and services) within which the sample target firms operate.<sup>43</sup>

With the exception of target board size, initial bidder toehold (and also the alternative proxy based on bidder representation on the target board and dissident target directors), whether full cash terms are offered from the outset, and a pre-bid approach to incumbent management, all of the principal explanatory variables have coefficients that are reliably different from zero at greater than the 5 percent significance level across the various model specifications. The probability of observing a management entrenchment resistance strategy increases with the size of the chief executive officer's (C.E.O.s) percentage beneficial equity interest. This result provides support for the Stulz (1988) proposition that managerial ownership can lead to entrenchment, and hence to a misalignment of their interests with those of stockholders in the face of takeover bids. Although Walkling and Long (1984), Cotter and Zenner (1994), and other research finds that managers are more likely to reject, than to recommend, bids the lower is their personal wealth tied to firm stock, these studies are unable to capture important differences in the underlying motives for resisting takeover offers.<sup>44</sup>

In choosing to resist bids, managers who are bent on entrenchment, and use opposition strategies spurred on by these motives, have equity stakes significant enough to reinforce their stockholder conflicting aims. This contrasts with stockholder orientated resisting C.E.O.s for whom lower stock ownership positions represent a bargaining power disadvantage relative to managers recommending takeover bids when first announced. Therefore, these publicly resisting C.E.O.s are forced to resort to information leakage strategies in an attempt to generate the best possible outcome for stockholders. These conclusions concerning the top managers of resisting target firms hold when substituting the proportion of votes over which they have direct or effective control for their percentage beneficial interests. Moreover, the inferences are derived from the linear distribution of C.E.O. stock

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<sup>43</sup> These sector controls are included in each of the Table 4 model specifications, although, for reasons of brevity, the coefficients and z-statistics are not tabulated.

<sup>44</sup> Pertinently, although Moeller (2005) does not model the likelihood of bid resistance during his 1990s sample timeframe, he does find that higher C.E.O. stock ownership, in addition to other proxies for low target stockholder control, is associated with smaller takeover premiums. Moreover, he observes that other C.E.O. incentives, such as value from executive options, are not important to this relation. Fundamentally, Moeller contrasts this result with the positive relation observed in studies of the hostile environment of the 1980s.

ownership, since adding a quadratic component to capture more extreme equity stakes diminishes the explanatory power of the model, and makes it impossible to reject the null hypothesis of a zero, same signed coefficient on the higher order term only.

The nature of takeover bid resistance is non-linearly dependent on the career life cycles of C.E.O.s, a finding that, because of the deliberate omission of recommended offers from the analysis, strengthens one of the core conclusions in Buchholtz and Ribbens (1994). Top managers assumed to be further up the executive career ladder, based on age, have a greater propensity for using entrenchment opposition strategies against takeover bids, as is evidenced by the positive coefficient on the first order age variable. However, this adverse effect for stockholders is mitigated for much older C.E.O.s., since the parameter of the higher order age term has the opposite sign. Age therefore provides a strong inducement for an entrenchment motivated resistance strategy among C.E.O.s at the prime of their careers, possibly because these top managers have the most to fear from being forced in to the executive labour market after takeover. Neither the stock ownership nor age incentive effects for C.E.O.s are affected by controlling for top managers who have only recently (within the 12 month period prior to bid announcement) taken the helm of target firms, a covariate that does not have any significant explanatory power.

Unlike for, and excluding, C.E.O.s, resisting boards owning, in aggregate, more stock are less likely to endorse an entrenchment opposition strategy, a conclusion that is unmitigated by the inclusion of a higher order ownership term. This result is important for two main interrelated reasons. First, the finding provides unequivocal support for the long established conjecture that it is possible to align director and stockholder interests through equity holdings (see, especially, Jensen and Meckling, 1976), even in the extreme case of choosing a bid resistance strategy where there is still potentially much at conflicting stake for both parties (albeit to a lesser degree than for the case of C.E.O.s).<sup>45</sup> Conventionally modelling bid resistance as a blanket response, with immediate recommendation as the reference case, can not lead to a conclusion of equal strength because opposition to an offer may not be against the best interests of stockholders.

Second, the result highlights a need to disaggregate top managers from the rest of the board when investigating the impact of inside ownership on bid resistance, since the human capital of C.E.O.s is exposed to an altogether higher level of post-takeover risk, and because top managers are in a more privileged position to extract private benefits of control. Although entrenchment opposition is less likely the higher is the aggregate equity stake of directors other than C.E.O.s, the extant research

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<sup>45</sup> Harford (2003) documents the potentially adverse impact of takeover bids on non-C.E.O.-directors' (including outside directors') wealth and future board seats.

points to resisting boards having lower interests relative to those at the outset favouring takeover bids (see, especially, Morck, Shleifer and Vishny, 1988; Cotter and Zenner, 1994). Hence, once again, information leakage strategies may provide a means for publicly resisting boards to enhance their bargaining position in an effort to achieve a superior deal for stockholders.

The way in which resisting boards are structured also affects the nature of bid resistance and, crucially, in a manner that accords with regulatory changes for making them more independent. In Models (1) and (2), entrenchment is a less probable motive for resisting takeover bids when target board chairpersons are independent and have reputation, in the form of other non-interlocking directorships, at stake. These chairpersons would therefore seem to act as an important counterweight to the power of C.E.O.s, an inference unchallenged by the inclusion of a factor covariate (which does not have significant explanatory power) identifying those firms that only initiated a dual leadership structure in the 12 months prior to being targeted.

In Models (3) and (4), the leadership based board independence variable is replaced with one conditioned on overall composition. However, resisting boards were found in Section 3.4 to be composed of a significantly higher proportion of non-aligned and reputed directors in the later (1997-03), and less active, hostile bid period of the sample timeframe, consistent with the regulatory induced trends in corporate governance. Therefore, the variable configured as the proportion of directors that are independent and with at least one other, non-interlocking, corporate seat is interacted with the factor covariate identifying resisted bids in the earlier (1989-96) and more active hostile offer period, so as to capture potentially greater variation in board independence.

This interaction term is inversely related to the odds of using an entrenchment opposition strategy, presumably because boards comprised of a greater proportion of independent and reputed directors represent a more effective force in ensuring that resistance is only used in the interests of stockholders. Explanatory power is sacrificed somewhat in Model (4), since Model (3) confirms that the effect of board composition is restricted to the earlier sub-timeframe of the sample. That is, as the exogenous impact of corporate governance reforms take hold it becomes increasingly difficult to differentiate between entrenchment and stockholder motivated resistance strategies based on board composition. It is reasonable to suppose, therefore, that the lack of consensus among the voluminous research into the effects of this board governance characteristic for an array of corporate contexts (comprehensively reviewed by Hermalin and Weisbach, 2003) is in some part attributable to differences in regulatory regime.

As previously noted, there is insignificant evidence for target board size being independently important in determining the nature of bid resistance. Smaller boards, which have been shown to be

more effective (see, especially, Yermack, 1996 for a general appreciation; and Bange and Mazzeo, 2004 for evidence in the specific context of takeovers), are not therefore more likely to facilitate stockholder orientated resistance responses to takeover bids. Using the natural logarithm of board size does not alter this conclusion.

The role of non-director-aligned blockholdings in bid resistance, however, becomes clearer by distinguishing entrenchment motivated opposition strategies from information leakage orientated ones. Intuitively, a concentration of such blockholdings is unlikely to constrain managers from resisting takeover bids so long as the tactics used are purely geared to promoting the interests of stockholders; hence, perhaps, the unconvincing results for conventional models of bid resistance (see, especially, Mikkelson and Partch, 1989). Indeed, the models in Table 4 reveal that the odds of resisting takeover bids for entrenchment reasons are diminished the greater is the extent of aggregate outside blockholdings. This finding is robust to alternatively weighting the blocks of stock being summed in order to account for variations in concentration distribution.<sup>46</sup> Independent blockholdings are therefore important in facilitating publicly resisted takeover bids that further their own interests and those of stockholders in general, a finding that enriches the importance of outside blockholdings in corporate control, as originally elucidated in Shleifer and Vishny (1986).

Negative coefficients on the market to book and asset turnover ratios infer that relatively inefficient managers have a higher probability of resorting to entrenchment resistance strategies. Stated in a different way, managers of target firms with comparatively poor performance records are more likely to fear disciplinary consequences from being acquired and hence to employ extreme opposition tactics intended to remove the direct threat posed to their positions and concomitant welfare. Failure to decouple entrenchment opposition from stockholder motivated resistance may therefore explain the general consensus of the extant research that hostile/resisted bids are, in reality, no more disciplinary than friendly/recommended offers. Instead, bid hostility/resistance is considered by Franks and Mayer (1996) and Schwert (2000), especially, to be a blanket manifestation of the intense bargaining process characterising such contested offers.

By testing a refined version of the original Morck et al (1988) proposition that takeover motive determines bid mood, this study produces results wholly consistent with the real intention behind these authors' early, and subsequently unsubstantiated, conjecture. That is, managers using pure bargaining resistance tactics to force out better terms for stockholders are expected, and indeed found, to have been performing significantly better than their counterparts resorting to entrenchment opposition

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<sup>46</sup> Specifically, the alternative specification for the concentration of outside blockholdings uses a Herfindahl type index, which involves summing the squares of the individual block stakes.

strategies, implying that conventional research designs are flawed in merging these managers with much stronger candidates for disciplinary takeover bids and, hence, drawing inferences from a misconstrued balance of probabilities. The systematic performance differences observed in the study are robust to alternative timeframes over which market to book and turnover to tangible assets ratios are gauged, and when the latter measure is instead computed as sales to firm value.<sup>47</sup>

Morck et al (1988) also conclude that there is a greater propensity for disciplinary/resisted takeover bids to target older firms. Consistent with the true nature of this insight, the logistic regression results presented in Table 4 reveal that bids facing entrenchment resistance strategies are not only more likely to be disciplinary, but also to be launched with better quality publicly available information about the relatively poor performing firms being targeted. Specifically, entrenchment opposition is a more probable response for target firms that have not been flagged by the Corporate Register for having only been fully listed, and hence subject to stringent information disclosure requirements, for approximately 6 years or less.

On the flip side, managers that publicly resist bids for information leakage reasons have higher odds of doing so to resolve the inevitable greater uncertainty about firm value emanating from having only recently been granted full listing status. Jennings and Mazzeo (1993) show that asymmetries associated with a high cost of information acquisition cause target firms to resist, rather than recommend, takeover bids. In contrast, this study takes the Fishman (1988) reasoning one stage further and directly reveals that poor quality/ more costly information about target firms creates a bargaining imbalance more likely to be combated by the use of pro-stockholder resistance strategies. Neither the differential effects related to past performance nor those emanating from the cost of information acquisition are affected by the inclusion of a proxy for target firm size, which is a covariate that contributes no significant explanatory power to the models.<sup>48</sup>

Of the initial offer characteristics considered only bid premium has a coefficient significantly different from zero (at the 95 confidence level or greater) across all of the reported models. The

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<sup>47</sup> Although studies such as Franks and Mayer (1996) and Schwert (2000) do not use industry adjusted performance measures, Morck et al (1988) find that deviations from industry performance are also important (albeit with less significance) in distinguishing between hostile/resisted and friendly/recommended targets. However, the significant performance differences observed in Table 4 remain after netting off median industry effects.

<sup>48</sup> Market value of assets (defined as the rumour adjusted common stock price multiplied by the number of outstanding shares, plus the book worth of non-equity securities and total debt) is used as the main proxy for target firm size, although the insignificant relation between the nature of bid resistance and firm size is robust to other commonly employed specifications. Datastream is used to compute target firm size. The extant research reports a positive, but not reliably significant, connection between generalised bid resistance and firm size (see, especially, Mikkelsen and Partch, 1989; Cotter and Zenner, 1994; Schwert, 2000). That the nature of bid resistance is not found to be related to target firm size in this study refutes the conventional wisdom of firm size being linked to the dark side of resistance on the grounds that larger target firms are likely to have more pronounced agency problems, and because firm size is a natural impediment to a successful takeover.

parameter sign implies a greater likelihood of observing entrenchment opposition in response to higher initial bid premiums, presumably because managers resorting to such resistance strategies are not motivated by the principle (theoretically demonstrated by Hirshleifer and Titman, 1990) that stockholders are more likely to accept bids with superior terms. Rather, these self-serving managers are intent on defeating bids that are likely to have higher initial offer premiums as a result of better information quality making the gains from disciplinary takeover attempts more certain. Hence, although lower initial offer premiums cause managers to resist takeover bids per se (see, especially, Jennings and Mazzeo, 1993), this study extends the analysis to revealing relatively poor terms at the outset as being more pronounced for opposition that is information leakage/ purely stockholder orientated. Varying the target stock price used to estimate initial bid premiums does not lead to different inferences.

There is no substantive evidence in Model (1) to suggest that initial bidders with larger toehold interests constrain managers from using entrenchment motivated resistance strategies. Thus, a greater propensity for managers to recommend takeover offers the more sizeable are bidders' prior interests (see, especially, Walkling and Long, 1984; Jennings and Mazzeo, 1993) might, in fact, translate to their being intractably coerced into succumbing to terms that they would otherwise have resisted for stockholder reasons had such a bargaining power disadvantage not existed.

However, substituting the factor identifying cases in the sample where initial bidders have representation on target boards, or are supported by dissident incumbent directors, for the toehold interest variable, results in a marginally significant, negative coefficient on this term in Model (2).<sup>49</sup> Initial bidders that have representatives, or the backing of dissidents, on target boards are more likely, therefore, to face resistance from incumbent directors demonstrating dissatisfaction with the offer terms for other stockholders. Furthermore, the significance of this factor improves considerably when the time dependent effect of board composition is allowed for in Model (4).

Finally, the other initial offer characteristics, full cash terms and bidder approach, are not reliably related to the nature of bid resistance. There is borderline statistical evidence in Model (2) only to suggest that the certainty of a cash valuation at bid outset makes it more difficult for managers to pursue resistance strategies against the interests of stockholders. This finding therefore goes some way to refuting the same line of reasoning for explaining why cash bids have a greater propensity for being recommended from the start (see, especially, the theoretical arguments of Fishman, 1989; and the corroboratory empirical results of Jennings and Mazzeo, 1993).

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<sup>49</sup> Cotter, Shivdasani and Zenner (1997) find that such a factor is significantly and inversely related to bid resistance in general.

The positive, but always insignificant, relation between initial bidder approach and the likelihood of entrenchment opposition probably reflects the disinclination of self-interested managers to use these private overtures for constructive negotiation about better terms for stockholders. Indeed, oppositely motivated managers afforded the same direct communication opportunity for pre-offer promotion of stockholder interests will likely agree to acceptable terms and, hence, be excluded from the sample of publicly resisted bids used in this study. It is likely to be more than mere chance, therefore, that a greater incidence of initial bidder approaches coincides with a decline in the proportion of information leakage resistance strategies in the later (1997-03), and less active, hostile bid period of the sample timeframe.

In summary, takeover bids are more likely to be resisted for entrenchment motives the greater are the personal stock interests of C.E.O.s, and as these top managers approach the peak of their executive careers. Boards of directors that are more closely aligned with stockholders through equity ownership and/or are structured independently are associated with a reduced propensity for entrenchment opposition. Entrenchment resistance is also a less probable opposition response the more concentrated are outside blockholdings, and the better performing are target firms. Lower information quality and higher initial bid premiums decrease and increase, respectively, the likelihood for entrenchment orientated resistance strategies.

Overall inferences about the logistic regression parameters of each of the models in Table 4 are such that, based on significant likelihood ratio tests (computed as the log-likelihood for the respective full model over the log-likelihood for a constant only model), the null hypothesis of all the coefficients equalling zero is steadfastly rejected. There is also strong statistical evidence that the regressions accord with the monotonic and sigmoidal shape properties of the logistic response function, as revealed by the insignificant Hosmer-Lemeshow chi-square summary measures for the overall goodness of model fits. Furthermore, a detailed examination of the logistic regression residuals, and associated plots, reinforces the conclusion that the models are correctly fit, and does not uncover any observations influential enough to warrant exclusion.<sup>50</sup>

For those explanatory factors in Table 4 that are robustly significant in a statistical sense, Table 5 reveals that all of the linear effects also result in an economically important impact on the probability of observing entrenchment motivated opposition to takeover bids. For example, the last column of Table 5 indicates that the odds of entrenchment resistance are 261 percent higher for C.E.O.s with equity stakes in the 90th percentile of the sample distribution for this variable (equating to a 4.2 percent

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<sup>50</sup> See Kutner, Nachtsheim, Neter and Li (2005, Ch. 14) for a concise discussion of parameter inferences, and goodness of fit and diagnostic tests applicable to logistic regression models.

stock interest), as compared to their counterparts in the bottom decile (with effectively a 0 percent ownership position), and contingent on all the other explanatory factors remaining constant.<sup>51</sup> The independent chairman indicator variable has the smallest effect on the odds of entrenchment opposition, although this target firm characteristic still has a relatively substantial 72 percent effect on the odds determining the nature of bid resistance. At the top end of the scale, the rise in initial bid premiums when moving from the 10<sup>th</sup> (-4 percent premium) to the 90<sup>th</sup> (82 percent premium) percentile values accounts for a 533 percent increase in the conditional odds of resistance being entrenchment orientated.

The economically significant, curvilinear, relation between C.E.O. age and the odds of entrenchment opposition, based on the parameters of Model (2) in Table 4 and holding the other explanatory variables at their mean values, is graphically illustrated in Figure 2. When C.E.O. age increases from 35 to 45, the probability of bid resistance being entrenchment motivated rises by 16 percent. However, a C.E.O. aged 55 has the greatest likelihood of resisting for entrenchment reasons, with their odds being 67 percent greater than for a C.E.O. aged 45. After age 55, the probability of entrenchment opposition declines at an equivalent rate to which it rose, such that by age 65 the odds have returned to approximately what they were at age 45.

It is, however, possible that the coefficients on certain of the target firm and initial offer characteristics included in the Table 4 models are biased because of an inappropriate assumption of these explanatory variables being predetermined and, hence also, unaffected by the problem of reverse causation. Determinants of the nature of bid resistance that require special investigation in this regard are C.E.O. and other directors' stock ownership, board independence and size, outside blockholdings, and initial bid premium, toehold and approach. Each of these factors is modelled separately and the resulting residuals added to the relevant logistic regressions in Table 4.<sup>52</sup> On the grounds of finding all of these residuals to be insignificant, this Durbin-Wu-Hausman endogeneity test procedure does not caution against using a predetermined configuration for the corporate governance related variables and

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<sup>51</sup> For each explanatory factor, the odds of entrenchment resistance are computed as follows:  $[e^{(\text{coefficient} \times 10\text{th} - 90\text{th percentile value difference})} - 1]$ . Coefficients are taken from Model (2), except that for the proportion of independent directors time dependent variable, which is from Model (4).

<sup>52</sup> Each of the corporate governance related factors are regressed on (1) the entrenchment opposition indicator variable, (2) target firm size and stock return volatility (measured as the standard deviation and variance of daily, FT-SE All Share index adjusted, stock returns, computed from Datastream, over the 12 month period ending 30 trading days before bid rumour, or the announcement date if there is no official rumour period) instrumental variables, and (3) other relevant controls flagged in the literature. These peripheral models are not tabulated for reasons of brevity. The models for initial offer characteristics are tabulated and discussed in Section 4.3.

initial offer characteristics.<sup>53</sup> Indeed, replacing each of the relevant explanatory factors with endogenous predictors leads to results and conclusions immaterially different from those discussed above.

A number of interesting findings emerge from modelling the corporate governance related factors. First, there is some evidence to suggest in cases where there is a greater propensity of bid resistance being for entrenchment reasons that C.E.O.s with such motives are pre-empted to accumulate defensive equity stakes. In contrast, directors other than the C.E.O. do not appear to increase their beneficial interests in anticipation of a greater likelihood of resisting bids for information leakage purposes. Second, there is insubstantial evidence that boards proactively become less independent and reduce in overall size, as directors seek to protect their reputations, when an entrenchment opposition strategy is a more probable resistance response. Lastly, there is no significant precursory sell-off of outside blockholdings, be it to the initial bidder or otherwise, when bid resistance is expected to be entrenchment motivated. These results therefore primarily confirm that the governance characteristics of target firms determine the nature of bid resistance, and not the other way round. Inferences from modelling the initial offer characteristics are discussed in Section 4.3.

#### ***4.2 Initial market expectations about the contrasting motives behind bid resistance***

There is somewhat mixed evidence concerning how the market conceives management resistance in general at the outset of takeover bids (contrast, for example, Huang and Walkling, 1987; Cotter and Zenner, 1994). It is inferred from a more favourable market response for resisted offers than recommended ones that managers use resistance as a bargaining tool for the benefit of stockholders, whereas a relatively adverse reaction is interpreted as bid opposition meant for entrenchment. Indeed, the conventional, blanket treatment of resistance leads to the equivocal findings in this regard, and permits indirect inferences only about the underlying nature of bid opposition.

The analysis of the previous sub-section reveals that variations in target firm and initial offer characteristics systematically explain the contrasting motives behind entrenchment and information leakage orientated resistance strategies. Therefore, this sub-section directly investigates whether the market initially responds less favourably to bid opposition that is more likely to be for entrenchment reasons. Target stockholders' initial reaction is measured as the cumulative abnormal (FT-SE All Share index adjusted) return (C.A.R.) over the period from 30 trading days before bid rumour (or

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<sup>53</sup> The rationale behind the Durbin-Wu-Hausman endogeneity test procedure is explained in Davidson and MacKinnon (1993, Ch. 7), and a detailed application of the technique is provided in Qiu (2003).

formal announcement, if no Regulatory News Service prior 12 month rumour related disclosure) through to the offer announcement date. C.A.R.s (computed using data obtained from Datastream) are characteristically large, with a mean and median of 24 and 26 percent respectively, and exhibit no significant variation related to the change in proportional hostile bid activity across the sample timeframe, as documented in Section 3.1.

Table 6 presents results from ordinary least squares regressions of announcement period C.A.R.s on the binary variable identifying cases of entrenchment resistance, initial bid premium, and important covariates.<sup>54</sup> Model (1) includes the nature of bid resistance and initial offer premium factors only as independent variables. While the variation in C.A.R.s is, unsurprisingly, strongly determined by the bid premium, there is no significant discounting effect to account for opposition that is more likely to be entrenchment orientated.

However, a different picture emerges when, in Model (2), the entrenchment resistance factor is instead interacted with the bid premium variable. Once more, stockholder reactions are inextricably linked to the bid premium, but now the potentially detrimental motive behind entrenchment opposition is reflected in C.A.R.s.<sup>55</sup> Specifically, the negative coefficient on the interaction term suggests that the market reaction is 29 percent lower for entrenchment opposition, as compared to information leakage resistance, for a given level of bid premium. This economically significant difference is statistically greater than zero with a p-value in excess of 0.01. Putting this result in to perspective, C.A.R.s are 6 basis points lower for the case of entrenchment resistance when the bid premium is held at its average level (34 percent) for the sample. Moreover, an effect of comparable magnitude is observed when replacing the factor variable identifying the actual nature of bid resistance with a continuous probability of entrenchment opposition, as predicted by Model (2) in Table 4.

Adding covariates contributing significant explanatory power also does not alter the main results. Model (3) reveals C.A.R.s to be adversely affected by initial bidder toeholds, but as responding more positively to full cash terms, and offers for larger target firms. These covariate results

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<sup>54</sup> Cotter and Zenner (1994) recognise the importance of controlling for initial offer premium when investigating the relation between announcement period abnormal returns and bid resistance per se. The coefficient on their bid resistance indicator variable is negative and statistically significant (right at the 5 percent level). However, unlike for the other models to follow in Table 6, Cotter and Zenner omit to consider the significance of the interaction effect between bid premium and resistance.

<sup>55</sup> The explanatory power and goodness of fit for Model (2) exceeds that for the previous model, as is evidenced by a larger adjusted R-square and F-test statistic. The adjusted R-square indicates that 64 percent of the variation in C.A.R.s is explained by the bid premium and nature of resistance variables, while the significance of the latter summary statistical measure is such that the null hypothesis of all the parameters equalling zero can be steadfastly rejected.

accord with the relevant extant research.<sup>56</sup> Crucially, other than initial offer premiums, none of the principal determinants of entrenchment opposition identified in the previous sub-section are found to significantly impact on C.A.R.s, beyond endogenous effects preordaining the nature of bid resistance. Overall, the above findings provide strong evidence to suggest that the most likely motive behind bid resistance is sufficiently value relevant when the market initially registers its reaction to takeover attempts.<sup>57</sup> This therefore further reinforces the contribution of using a research design that differentiates between the conflicting opposition orientations.

### ***4.3 Bidders' pre-offer decisions and the anticipated nature of bid resistance***

The same target firm characteristics that set apart entrenchment motivated and information leakage orientated resistance strategies in Section 4.1 are also potentially important in the process of formulating bidding tactics. In particular, Hirshleifer and Thakor (1994) theoretically espouse that initial offer premiums are likely to vary inversely with the quality of target board structures, a construct which is empirically supported, and generalised to other tactical deliberations of bidding firms, by Bange and Mazzeo (2004).<sup>58</sup> To the extent that internal monitoring structures are indicative of the receptiveness of boards to takeover offers, these studies ultimately invoke a conception of bidding firms being pro-active in relation to management resistance. Notwithstanding that the predetermined proxy variables for initial offer characteristics in the resistance strategy models are shown to have parameters unbiased by the assumption of exogeneity, it is therefore pertinent to establish whether bidding tactics differentially pre-empt entrenchment and information leakage motivated opposition responses.

The tactical determinants of initial bid structure/disposition considered are offer premium, toehold acquisition, and target board approach. Each of these pre-bid decision variables (as previously configured in Section 3.3) are, in turn, regressed on the binary term identifying entrenchment

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<sup>56</sup> Cotter and Zenner (1994) find that their bid premium and resistance results are robust to the inclusion of these same covariates when modelling announcement period abnormal returns.

<sup>57</sup> The findings directly corroborate the theoretically proven propositions of Hirshleifer and Thakor (1994) concerning bid opposition sometimes being good news for target stockholders, particularly when they perceive the board to be more vigilant, which, indeed, information leakage resisting boards are found to be in the previous sub-section. Fundamentally, however, the valedictory conclusions in this study depend on the nature of overall resistance and, as such, are not founded on the altogether weaker premise of a specific anti-takeover tactic (for example, poison pills) being received more favourably by the market when adopted by an independent board (as documented by, especially, Brickley, Coles and Terry, 1994).

<sup>58</sup> Note, however, that Cotter, Shivdasani and Zenner (1997) find sustenance for a reverse line of reasoning, which is more in keeping with the Fishman (1988) proposition that, if bid revisions are costly, bidders will structure the initial offer to reflect expected bargaining by the board (which Cotter et al argue will be greater for independent boards, if indeed these are more likely to maximise stockholder value), in addition to the likelihood of competing bids.

opposition strategies, the other initial offer characteristics, and important covariates for the individual models. Table 7 presents the results from these regressions.

Ordinary least squares (O.L.S.) Model (1) reveals no significant proactive connection between offer premiums and the nature of bid resistance. Hence, initial bid premiums do not appear to be set higher for countering entrenchment opposition, and relatively lower for pre-empting information leakage resistance because of greater uncertainty surrounding target firm value. There is strong statistical evidence, however, to suggest that offer premiums at outset are constrained when bidders have larger toeholds to enhance their bargaining power (which most likely explains the adverse market reaction to larger initial bidder stakes observed in the previous sub-section), and when the run-up in target stock returns is more pronounced.<sup>59</sup> Furthermore, initial offer premiums are higher (albeit with only marginal significance) in cases where the bidder has approached the target board and hence already gauged the nature of its resistance.

Toehold acquisitions are also not influenced by the anticipated nature of bid resistance.<sup>60</sup> While there is no evidence in O.L.S. Model (2) to support larger toeholds being a proactive bargaining tactic against information leakage orientated resistance strategies, such prior stock acquisitions are significantly related to initial offer premiums, consistent with the finding for the previous model. Moreover, toeholds are greater for cases involving a pre-bid approach to the target board, perhaps facilitating genuine private negotiation attempts, and instances where full cash terms are subsequently offered to acquire the outstanding stock. The size of bidder initial stock interests is also dependent on the concentration of non-director-aligned blockholdings, suggesting that toeholds are more difficult to accumulate the greater is the dispersion of target firm external control, and hence further attesting to the importance of outside blockholdings in facilitating corporate control transactions (see, especially, Shleifer and Vishny, 1986; Shivdasani, 1993). Lastly, toehold acquisitions are of a higher magnitude in the earlier (1989-96) sub-period of the sample timeframe, indicating that pre-offer stake building is a

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<sup>59</sup> The finding for toehold is consistent with Cotter et al (1997), who instead use an interlocking directorship variable to capture the initial bargaining power of the bidder. Indeed, replacing initial toehold stake with an indicator for the bidder having representation on the target board, or support from a dissident incumbent director, produces the same result. However, Bange and Mazzeo (2004) do not find a significant relation between initial offer premium and bidder toehold. Unlike, Cotter et al, Bange and Mazzeo control for the run-up in target stock price, but this is not found to be associated with initial bid premium. A possible reason for this result being inconsistent with that observed in Table 7 is that Bange and Mazzeo's initial premium computation overlaps their run-up period. Neither Cotter et al nor Bange and Mazzeo consider the impact of resistance (howsoever defined) on initial bid premium. Although both studies include many more explanatory factors than are reported in Table 7, the relatively low adjusted R-square of 8 percent is comparable to that for Cotter et al's model of initial bid premiums, and superior to that for Bange and Mazzeo's regressions.

<sup>60</sup> Betton, Eckbo and Thorburn (2005) find that toehold size is unrelated to bid resistance (conventionally defined), but that the mere presence of an initial bidder stake is positively determined by target hostility. Repeating the analysis of Model (2), but instead modelling initial bidder toehold as a binary variable for the existence of any toehold stake produces results consistent with those reported in Table 7. That is, the nature of bid resistance does not increase the likelihood of observing a bidder toehold, yet alone pro-actively influence the size of such a stake.

by-product of a proportionately more active environment for hostile bids. All of these significant O.L.S. relations have p-values in excess of 0.05.

The logistic regression results of Model (3) reveal that the decision to approach the target board before publicly announcing an offer is not made in an attempt to pre-empt the impact of an information leakage resistance strategy.<sup>61</sup> However, the likelihood of a pre-offer approach is positively related to initial bid premiums and toehold interests (although the former result is only marginally significant), findings that accord with those from the other models here in this section. Even after controlling for these two effects, and as discussed in Section 3.4, there is a much greater incidence of initial bidder approaches in the later (1997-03) and relatively less active hostile offer sub-timeframe.

The inferences from all three models remain the same when using, instead, the continuous probability for the choice of bid resistance strategy (predicted from Model (2) in Table 4), and when estimating the equations simultaneously to reliably capture the interrelated decisions influencing the structure and disposition of initial offers. Ultimately, the absence of reverse causality in each model categorically accords with the conclusion in Section 4.1 that initial offer attributes determine the nature of bid resistance.<sup>62</sup> Contemporaneously, the preceding analysis provides no support for the board structure propositions and findings of Hirshleifer and Thakor (1994) and Bange and Mazzeo (2004), since outside blockholdings is the only target firm characteristic that both significantly differentiates between entrenchment and information leakage resistance strategies, and has explanatory power to individually influence initial bidding tactics (specifically, the toehold decision).

## **5. Takeover Bid Outcomes for Stockholders and Managers and the Nature of Resistance Strategies**

Target stockholders want takeover attempts to generate the highest possible bid premium and to be successful for realisation of the revaluation effect. In general, it would seem that management resistance per se adversely impacts on overall contest returns to target stockholders (see, especially, Cotter and Zenner, 1994; Cotter, Shivdasani and Zenner, 1997; Bange and Mazzeo, 2004), and a more consistent detrimental effect on whether takeover bids are successful (see, especially, Walkling, 1985; Bange and Mazzeo, 2004). However, a more refined test of the importance of management resistance

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<sup>61</sup> Modelling initial bidder approach for publicly resisted takeover bids is analogous to a special case of analysing the choice made by bidders between negotiated and bypass offers (as modelled by Bange and Mazzeo, 2004). In this refined case, the interest is in the nature of the transaction ex-ante that the bidder was seeking.

<sup>62</sup> That target stockholders are found in the previous sub-section to react more adversely to the expectation of an entrenchment opposition strategy not only reinforces this conclusion, but also the inferences here in this section concerning the nature of bid resistance being pre-emptively unimportant when bidders make decisions determining the structure/disposition of their initial bids.

in determining stockholder outcomes is to differentiate between entrenchment and information leakage orientated responses to takeover bids. The prior findings reported in this study provide added motivation for such an investigation.

Given the motives for an information leakage resistance strategy, final offer premiums, overall target stockholder returns, and the likelihood of takeover success are expected to be higher for such a management response. The adverse stockholder effects of undifferentiated management resistance, documented in the extant empirical work, are therefore predicted to be specifically associated with an entrenchment motivated resistance strategy against takeover bids. Moreover, since it was found in Section 4.1 that the form of management resistance in response to takeover bids is endogenously determined by target firm characteristics then such factors may no longer add significant explanatory power when modelling stockholder outcomes. It remains to be re-evaluated, in particular, if independent boards have a beneficial impact on total target stockholder returns, or whether Cotter et al (1997) document a spurious relation from homogenising management resistance against takeover bids.<sup>63</sup>

It is clear from the preceding analysis of this study that whether managers are more preoccupied with the potential effects of takeover bids on their own welfare, rather than on stockholder outcomes, will ultimately manifest itself in the form of resistance. Precisely, managers who are primarily concerned about the threat of removal from office (and its concomitant welfare effects) are more likely to use an entrenchment motivated resistance response rather than an information leakage orientated strategy. However, this level of differentiation in management resistance strategies is not applied in extant empirical studies of top management turnover following takeover bids. This might, therefore, account for the apparent weak association between management resistance and bottom line disciplinary consequences of corporate takeovers (see, especially, Kini, Kracaw and Mian, 2004). As with a refined investigation of stockholder outcomes, the extent to which resistance strategies are inherently shaped by target firm characteristics will determine whether such factors are independently important in influencing top management turnover induced by takeover attempts.<sup>64</sup>

It is also expected that more insightful inferences will emerge from a similarly honed assessment of the longer term labour market reputation effects of top target managers following

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<sup>63</sup> In contrast to Cotter et al (1997), Bange and Mazzeo (2004) do not find that independent boards are associated with overall stockholder wealth gains from takeover bids, but, unlike Cotter et al, they do not control for target board resistance per se in these regressions.

<sup>64</sup> In the case of top management turnover following takeover bids, the target firm characteristics that are particularly relevant are prior performance (see, especially, Martin and McConnell, 1991) and the effectiveness of internal control mechanisms (see, especially, Kini et al, 2004). Both of these factors are found in Section 4.1 to be important determinants of the nature of bid resistance.

takeover bids (as previously examined by, especially, Agrawal and Walkling, 1994). Specifically, it is hypothesised to be less likely that top target managers will be holding any senior corporate directorship in the immediate years after using an entrenchment motivated resistance strategy against a takeover attempt, as compared to their information leakage orientated peers. The following sub-sections examine target stockholder and manager linked outcomes of takeover bids and whether these are related to the nature of resistance strategies.

### ***5.1 Descriptive statistics and temporal analysis for factors characterising the stockholder and manager outcomes of takeover bids***

Target stockholder related outcomes from publicly resisted bids are evaluated based on final offer premiums (even if the target is not taken over and hence the owners do not receive the eventual offer terms), cumulative abnormal returns (C.A.R.s) from contest initiation through resolution, and whether the takeover attempt ultimately leads to a complete change of control for the target firm. As described in Section 3.1, a publicly resisted bid period begins with a rejected offer and incorporates any subsequent takeover attempts announced within 12 months of an unsuccessful resolution to the original contest.

Final bid premiums are computed as the difference between the unit worth of the outlasting offer and the target's stock price 30 trading days before initiation of the original takeover attempt, divided by the pre-contest value. The target firm's stock price 30 trading days before initiation of the original offer is determined, as in earlier relevant configurations, using the first Regulatory News Service reported rumour date (within 12 months of formal bid announcement), or the bid announcement date if the takeover attempt is not officially anticipated. Also, as for the prior computation of initial bid premiums, exchange offers are valued based on the outlasting bidder's stock price 5 trading days before their initial bid terms are announced. Table 8 reveals that final offer premiums average 54 percent (median 47 percent) for the sample of resisted takeover bids. The mean and median difference between final and initial bid premiums is 19 and 11 percent, respectively. There is no material variation in the final, and revised, offer premiums across the more and less active hostile bid sub-periods of the sample timeframe, as indicated by the insignificant difference in mean and median test statistics.<sup>65</sup>

Overall C.A.R.s (FT-SE All Share index adjusted) are estimated from 30 trading days before initiation of takeover attempts (as explained for bid premiums above) through either contest

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<sup>65</sup> The sizeable final bid premiums and revisions therein are in line with those reported by, especially, Cotter and Zenner (1994) for their subset of hostile takeover offers from the period 1988-91.

completion, or 12 months post-bid failure, during which extended time no other offers materialise. This measure of overall stockholder returns, net of market movements, permits evaluation of target owners' welfare effects from takeover bids for different resolution outcomes. C.A.R.s average 24 percent (median 31 percent) and do not vary significantly across the sub-timeframes of the sample period. Bid induced abnormal stock returns are largely reflected at the outset, since the mean and median difference between overall and announcement period C.A.R.s is only 1 and 4 percent, respectively. These differences are also not affected by temporal variation.

Lastly for stockholder outcomes, takeover attempts ultimately leading to a complete change in control for the target firm are identified as bids that are ultimately declared unconditional in all respects (as disclosed to the Regulatory News Service). A factor variable, referencing target firms that remain independent, is used to capture bid resolution outcome. 70 percent of the publicly resisted takeover attempts lead to the original bidder, or a subsequent third party, gaining control of the target firm, a large overall success rate that does not depend significantly on changes in the relative propensity of hostile bid activity over the sample timeframe.<sup>66</sup>

Manager affected outcomes from resisted takeover bids are evaluated based on loss of office and longer term effects on reputation in the executive/director labour market. A binary variable is used to identify cases where the top manager (as previously defined in Section 3.3) either is turned over by the successful bidder, or relinquishes office in the 12 months following a failed takeover attempt. 45 percent of the chief executive officers (C.E.O.s) represented in the sample lose their upper echelon status, as ascertained from Regulatory News Service disclosure of target board changes. This proportion is considerably lower than the percentage (70 percent) of target firms ending up being taken over (as reported above), suggesting that even for top managers whose firms are acquired there remains a much higher chance of holding on to office.<sup>67</sup>

Of course, going from being a C.E.O. of a previously listed firm to a top manager of a subsidiary, or privately owned company, does not carry the same status or necessarily offer equivalently high benefits of office. Another factor variable is therefore used to divide sample cases according to whether target C.E.O.s serve as top managers of any listed firms (satisfying selection criteria identical to those used to consistently screen potential sample firms in Section 3.1, and using the same, Corporate Register, information source) in any of the two years following either bid

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<sup>66</sup> The 70 percent success rate is somewhat higher than that reported for the resisted bid subsets of prior studies. For example, Cotter and Zenner (1994) document that 56 percent of their hostile targets (in the 1988-91 period) ended up being taken over. The higher rate of completion reported in this study reflects the broader definition of success, which accounts for subsequent offers within 12 months of an original bid failing.

<sup>67</sup> Such a large discrepancy between these percentages is indicative of C.E.O.s trading off takeover related payoffs for an executive position in the acquiring firm (see, especially, Hartzell, Ofek and Yermack, 2004).

completion, or the 12 month period after the failure of a takeover attempt. Instances of incumbent C.E.O.s continuing to run listed firms after resisting takeover bids (the reference cases for this factor variable) are dwarfed by the 73 percent of cases for which top executives appear to end up with somewhat tarnished reputations in the managerial labour market.<sup>68</sup>

The diminished reputation effect is lessened to a fair degree by also accounting for target C.E.O.s serving in any capacity on the boards of listed firms, since based on this wider evaluation only 58 percent fail to sustain their recognition in the executive/director labour market. None of the managerial outcome variables display significant variation across the sample period, which is perhaps surprising given the proportionally higher incidence of entrenchment opposition strategies in the later (1997-03) sub-timeframe.

## **5.2 *Final bid premiums and overall stockholder returns***

Table 9 presents results from ordinary least squares regressions of final offer premiums, and cumulative abnormal returns (C.A.R.s) from contest initiation through resolution, on the factor variable identifying entrenchment resistance strategies, and important covariates for explaining variations in these stockholder outcomes from takeover bids.

Model (1) reveals that the nature of bid opposition has no effect on eventual offer premiums, as indicated by the insignificant coefficient on the entrenchment resistance factor variable. However, it is equally found that none of the target firm characteristics able to differentiate between entrenchment and information leakage orientated bid opposition in Section 4.1 are important individualistic determinants of final offer premiums. In particular, it is not possible to corroborate the finding of Cotter, Shivdasani and Zenner (1997) that more independent boards are linked to the generation of higher bid premiums during the course of takeover contests.

In fact, the only influential effect on final offer premiums comes from multiple bids, which are defined as actual offers from third parties announced subsequent to the initial hostile bidder, but within 12 months of any previously unsuccessful takeover attempt.<sup>69</sup> Most of these third party bids are recommended at the outset by the target boards, and although third party bidder solicitation purely for the purpose of securing higher offer premiums is the reserve of information leakage resistance strategies, there is no significant interaction effect between the multiple bids and entrenchment

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<sup>68</sup> A very high rate of C.E.O. post-takeover attrition is consistent with the findings of, especially, Agrawal and Walkling, 1994.

<sup>69</sup> Surprisingly, Cotter et al (1997) do not control for multiple offers in their analysis of the impact of independent boards on final bid premiums.

opposition indicator variables. Hence, entrenchment resistance strategies that lead to third party offers as a last resort (white knights) do not adversely affect the eventual superior terms afforded to stockholders in the presence of competing bids. All of these conclusions also emerge from Model (2), for which the dependent variable is the difference between final and initial bid premiums (that is, the premium revision).

Although final offer premiums are of an insignificantly different magnitude in the face of entrenchment versus information leakage orientated opposition, this does not necessarily mean to say that stockholder welfare is lastingly unaffected by the nature of bid resistance. In order to fully address this issue account needs to be taken of whether bids are ultimately completed, and how stockholders fare following failed takeover attempts.

Model (3) is therefore concerned with the determinants of overall stockholder returns, net of market movements. As was found for announcement period abnormal returns in Section 4.2, the form of resistance has no independent effect on overall stockholder wealth. Instead, as before, the impact of bid opposition strategy is reflected in cumulative abnormal stock returns through the offer premium. Overall, higher final offer premiums generate larger C.A.R.s, but the market significantly discounts the eventual premium effect when an entrenchment resistance strategy is used against takeover bids. The negative parameter on the term interacting final offer premiums and the entrenchment opposition factor variable is statistically significant at the 1 percent level. Moreover, the difference in overall stockholder wealth as a result of entrenchment motivated resistance is economically important. For the average final offer premium of 54 percent across the sample of resisted takeover bids, an entrenchment opposition strategy leads to C.A.R.s being reduced by 12 basis points relative to that for an information leakage response.

Consistent with the models for final bid premiums discussed above, target firm characteristics are found to add no independent explanatory power to the overall stockholder wealth regression, which further refutes the beneficial effects of board independence documented by Cotter et al (1997). Somewhat surprisingly, whether takeover attempts are ultimately successful does not affect overall abnormal stock returns, and multiple bids have a marginally significant negative impact on C.A.R.s over and above the main premium effect. However, overall C.A.R.s are much more pronounced when full cash terms (including full cash alternative terms, as disclosed to the Regulatory News Service) are finally offered to stockholders, and the larger are target firms.<sup>70</sup> The latter two results accord with the findings for announcement period C.A.R.s reported in Table 6.

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<sup>70</sup> Refer to footnote 48 for an appreciation of target firm size.

Finally, in Model (4) the dependent variable is the difference between overall and announcement period abnormal stock returns. The explanatory variables are the same as those for Model (3), except that the final bid premium is replaced with the premium revision. Post-announcement period C.A.R.s are strongly related to the revision in bid premiums, but there is no longer a mitigating effect to reflect the adverse consequences of an entrenchment resistance strategy.<sup>71</sup> The now insignificant parameter on the interaction term infers that the market efficiently factors in, through offer premiums, expectations about the potentially anti-stockholder impact of entrenchment opposition in the bid announcement period, such that there is no need for material corrective movements through contest resolution.

Also, unlike for overall stockholder returns, post-announcement period C.A.R.s are significantly higher for takeover attempts that eventually lead to a completed bid, but still surprisingly negative for contests involving third party offers, although, once again, this is the impact of multiple bids having already accounted for this effect through the bid premium. Finally, bids that ultimately offer full cash terms receive additional credit by the market, but target firm size does not significantly influence C.A.R.s in the post-announcement only period. Hence, an analysis of C.A.R.s at different stages throughout takeover contests reveals that the completed bid, third party offer, full cash terms, and target size covariates are indeed important in determining stockholder returns, but that the strength of the effect for each factor is bid duration dependent.<sup>72</sup>

### ***5.3 Takeover completion and post-bid top manager turnover and labour market reputation effects***

Results from logistic regressions for the probability of takeover attempts ultimately being successful, of a post-bid change in the target top manager, and of incumbent chief executive officers (C.E.O.s) not subsequently having such representation on the board of any listed firm are presented in Table 10. In each model, the main potential explanatory variable of interest is the indicator for an entrenchment opposition strategy, after allowing for important covariate determinants of the respective events being investigated.

Model (1) reveals that there is a significantly (in excess of the 5 percent level) lower univariate likelihood of a complete change in control of the target firm when management resistance is

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<sup>71</sup> Cotter and Zenner (1994) observe that overall abnormal returns, like announcement period wealth effects, are significantly, negatively related, in a stand alone way, to bid resistance (conventionally defined) in their study of takeover bids over the period 1988-91. However, they do not investigate whether this is also true for post-announcement period abnormal returns.

<sup>72</sup> The general importance of these explanatory factors on target stockholder returns from takeover bids has been documented overall by, especially, Cotter and Zenner (1994), Cotter et al (1997), and Bange and Mazzeo (2004).

entrenchment motivated. Figuratively, the odds of a takeover bid being completed in the face of entrenchment opposition are 57 percent lower than for the case of information leakage resistance. This finding attests to the importance of modelling the contrasting motives behind opposition strategies in order to directly explain the well documented negative relation between bid outcome and resistance in studies such as, especially, Walkling (1985) and Bange and Mazzeo (2004).

Notwithstanding the material adverse impact of entrenchment opposition on bid resolution outcome, the effect becomes insignificant when defining covariates are taken in to account in Model (2). Chief among these important controls is the factor variable identifying bids in which stockholders are ultimately offered full cash terms. Although it was observed in Section 4.1 that full cash terms at the outset of bids reduce the probability of an entrenchment opposition strategy to only a marginally significant degree, such offers at the close of takeover attempts are decisive in determining contest outcome.<sup>73</sup> The presence of competing bids is also strongly associated with a greater probability of takeover attempts being completed.<sup>74</sup> No other variables, including, interestingly, final bid premiums, enter Model (2) significantly. An important implication of the preceding analysis is that entrenchment motives may not fully account for the significantly higher failure rate for bids being resisted rather than recommended at the outset, as reported in the extant research.

However, an overall weak association between the nature of resistance and bid completion, and, indeed, the failure to observe entrenchment opposition adversely impacting on final offer premiums in the previous sub-section, might be explained by the regulatory environment within which publicly resisted takeover attempts are being investigated. As was discussed in the Introduction to this study, the U.K. Code regulating takeover bids, and the actions of the parties involved, prevents target managers from actually implementing proposed frustrating actions, of the kind defining entrenchment strategies in Section 3.2, without the prior approval of stockholders. The intention of Rule 21 of the Code is to balance managerial discretion to resist takeover attempts against the protection of stockholder interests, and as a consequence to facilitate a fair and competitive market for corporate control in which stockholders ultimately decide the outcome of bids. This regulatory line of reasoning gains added impetus from having examined the relation between stockholder returns and the nature of bid resistance in Sections 4.2 and 5.2. That is, the market registers its disapproval of opposition strategies

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<sup>73</sup> Walkling (1985) only studies takeover bids with full cash terms, but Bange and Mazzeo (2004) do not control for the medium of exchange. Full cash terms at bid outset and finale were found in Tables 6 and 9, respectively, to be received significantly more favourably by target stockholders.

<sup>74</sup> This result is consistent with the findings of Walkling (1985), for his subset of resisted takeover bids, and Bange and Mazzeo (2004), although for both of these studies the multiple bids indicator variable has a negative coefficient because takeover success is configured on the initial bidder only.

that are expected to be entrenchment motivated at the outset of takeover attempts, but subsequent bid induced movements in stock returns are unrelated to the form of resistance.

The remaining models presented in Table 10 are concerned with what happens to top managers after resisting takeover bids, and, fundamentally, whether these incumbent C.E.O. outcomes are affected by the form of opposition strategy. Model (3) investigates post-bid C.E.O. turnover. C.E.O.s are more likely to leave office in the aftermath of takeover bids when an entrenchment resistance strategy has been employed. The coefficient on the entrenchment opposition indicator variable is significantly different from zero with a confidence level in excess of 95 percent. Furthermore, the effect of the nature of bid resistance on C.E.O. turnover is economically material. C.E.O.s that oppose takeover attempts for entrenchment reasons have 152 percent higher odds of being turned over relative to their counterparts resisting bids for information leakage purposes. Hence, it is the form of opposition strategy, and not resistance per se, that determines the disciplinary outcomes of takeover bids. This may therefore explain the weak disciplinary association between top manager turnover and bid resistance in general reported by, especially, Kini, Kracaw and Mian (2004).

Moreover, none of the key target firm determinants of entrenchment versus information leakage opposition strategies discussed in Section 4.1 is found to be robustly significant beyond the nature of bid resistance effect on C.E.O. turnover. In particular, entrenchment resistance is more likely when target firms have less independent boards and weaker performance, but the factors that proxy for relatively inferior internal control structures and management performance do not autonomously increase the probability of post-bid C.E.O. turnover. There is a substantially greater occurrence of incumbent C.E.O. changes when takeover attempts are successful, while more pronounced run-ups in stock returns significantly decrease the likelihood of top manager turnover.<sup>75</sup> The latter covariate was not found to be statistically significant when differentiating between entrenchment and information leakage opposition strategies.

Finally, Models (4) and (5) estimate the probability that C.E.O.s do not serve as top managers and in any capacity, respectively, on the boards of listed firms during the two year period after the conclusion of takeover contests. Such an analysis permits investigation of the prolonged disciplinary/reputation consequences of entrenchment opposition, based on the post-bid representation of incumbent C.E.O.s in the executive/directorial labour market.

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<sup>75</sup> Agrawal and Walkling (1994) observe that target C.E.O.s are more likely to be replaced when a bid succeeds than when it fails. Similarly, Harford (2003) finds that a successful takeover attempt is one of the few important determinants in predicting the post-bid retention of inside directors. He also discovers that C.E.O.s with a higher predicted probability of not being retained have a greater propensity to resist, rather than recommend, takeover bids.

The results of Model (4) reveal that target C.E.O.s are not significantly less likely to be top managers on the boards of listed firms after using entrenchment resistance strategies against takeover bids. Rather, irrespective of the form of opposition strategy, the odds of C.E.O.s discontinuing as top managers of listed firms are much greater when takeover bids are completed. The parameter on the factor variable identifying successful takeover attempts is significantly different from zero with a p-value in excess of 0.01, and equates to 352 percent higher odds of C.E.O.s having their top management careers in the listed market cut short when the firms at which they hold the helm are taken over.

This decisive effect on the longer term employment outcomes for C.E.O.s stands in stark contrast to the comparable result observed in Model (3) for immediate turnover, since in the previous regression the nature of bid resistance was a significant explanatory variable even after controlling for the material fallout from the completion of takeover attempts. Hence, because C.E.O.s of entrenchment resisting target firms have increased odds of being turned over, these top managers have more to fear from the prolonged disciplinary consequences of takeover bids. Indeed, replacing the indicator variable for completed bids with one identifying incumbent C.E.O. turnover leads to the same pronounced effect on their chances of subsequently being represented at the highest level on the board of another listed firm.<sup>76</sup>

Firm size is found to be the only other reliably significant explanatory variable in Model (4), with C.E.O.s of relatively larger, and hence perhaps more prestigious and/or powerful, targets having a greater likelihood of serving as top managers in the listed market after takeover bids. Therefore, although entrenchment resistance strategies have no significant impact in Model (4), none of the drivers of such forms of opposition are independently important in understanding the longer term outcomes of takeover bids for C.E.O.s. Finally, the same inferences emerge from Model (5), suggesting that the post-bid employment consequences for top managers extend to serving in any capacity on the boards of listed firms.

## **6. Conclusions**

Notwithstanding the much cited demise of publicly resisted bids since the 1990s, this study shows that (based on proportionate final offer worth) hostile takeover attempts continued to be a significant phenomenon of the market for corporate control over the period 1989-03. Moreover, the

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<sup>76</sup> Agrawal and Walkling (1994) also conclude that target C.E.O.s who lose their jobs generally fail to find another senior executive position in any public firm within a one to three year post-bid period.

end of this timeframe was characterised by a reigniting of the heated debate concerning managerial discretion to oppose takeover bids, and calls/attempts in the U.S. and Europe to better protect the interests of stockholders in line, at least, with the defining principle of the U.K. regulatory framework preventing target managers from taking frustrating action without stockholder approval.

However, relatively little is documented in the empirical literature with a high degree of assuredness from investigating the motives and outcomes of bid resistance per se, or specific anti-takeover manoeuvres. This study argues and shows that limitations in the design of the extant research are largely to blame. In particular, the conventional approach to the study of bid resistance non-rigorously treats the event as a homogenous phenomenon and draws inferences as to whether it is good or bad for stockholders, compared to a non-opposing response, based on a misconceived balance of probabilities.

In contrast, this study accounts for the heterogeneous nature of bid resistance by systematically classifying all-encompassing tactics as ex-ante either entrenchment motivated or purely information leakage orientated, based on the conflicting pro-manager and pro-stockholder rationales for opposing takeover attempts. The study's sample of publicly resisted takeover bids is found to be divided fairly evenly between entrenchment and information leakage motivated resistance strategies, which immediately cautions against lumping together the divergent orientations. This heeding is subsequently affirmed by an (endogenously robust) investigation of target firm and initial offer characteristics that differentiate resistance strategies to an extent wholly conducive with the underlying contrasting motives, even though interrelated analysis reveals the nature of bid opposition as not being pro-actively important to bidders in determining the structure/disposition of their initial offers.

Specifically, there is a greater likelihood of observing an entrenchment opposition strategy, relative to an information leakage one, when chief executive officers (C.E.O.s) have larger ownership/control stakes, suggesting that the benefits of office (private or otherwise) gain higher precedence for these top managers. Furthermore, C.E.O.s' propensity for resorting to entrenchment resistance reaches its peak some 10 years short of normal retirement age (65), implying that post-takeover employment, and concomitant welfare, consequences are less of a concern for much younger and older top managers. In addition to C.E.O.s' financial and personal incentives, pro-manager motives, and hence strategies, for opposing takeover bids are associated with target boards that are less effectively structured (that is, with no independent and reputed chairperson; and a lower proportion of unaffiliated and credible directors), and more weakly aligned to stockholders' interests through equity ownership, to fulfil their crucial oversight function.

Moreover, bid opposition for entrenchment reasons is less probable when there is greater (potential) discipline from non-aligned blockholdings, when resisting firms are stronger performing, and also when information asymmetry concerning true target worth is likely to be more pronounced. Finally, entrenchment resisting boards oppose takeover bids offering higher initial offer premiums than those received by their information leakage responding counterparts. All of these differences in target firm and initial offer characteristics have an economically significant impact on the odds of resistance strategies being entrenchment motivated relative to information leakage orientated.

The material cross-sectional variation in the nature of bid resistance documented in this study has important implications for the extant research. At the extreme, the findings of the study help to resolve the contention surrounding the popular notion that hostile takeover bids have overriding disciplinary tendencies (see, especially, Franks and Mayer, 1996; Schwert, 2000). That is, it is perhaps unsurprising to discover blanket analyses of resisted bids generally disputing the takeover motive determining mood proposition of Morck, Shleifer and Vishny (1988), when, to begin with, these authors' seminal conjecture is not clearly defined, and, as is affirmed by this study, some hostility is simply and genuinely symptomatic of managers' bargaining in the best interests of stockholders.

However, the results of this study also provide new, and crucially direct, insights in to many of the key relations pervading the takeover resistance literature. In particular, the usually inverse, but not always significant, association between the likelihood of (conventionally defined) bid resistance and initial offer premiums (see, especially, Jennings and Mazzeo, 1993) is revealed to be strongly characteristic of opposition that is information leakage orientated.

Subsequent analysis in this study shows that the stock market capitalises the anticipated gains from takeover bids with respect to the expected nature of bid resistance, such that announcement period abnormal returns for an entrenchment opposition strategy are substantively below those for an information leakage response. Once again, failure to directly account for the conflicting motives behind bid resistance is likely to explain the inconsistent initial market reactions reported in the extant research (see, especially, Huang and Walkling, 1987; Cotter and Zenner, 1994). Furthermore, the study's investigations of the Hirshleifer and Thakor (1994) good or bad news propositions in this regard are altogether more rigorous than for extant research finding corporate governance related cross-sectional variation in the market response to the adoption of specific anti-takeover mechanisms (see, especially, Brickley, Coles and Terry, 1994). Interestingly, although the form of opposition has a similar impact on overall abnormal returns from bid rumour through resolution, no such effect is found for the post-announcement period only stockholder wealth effect. This implies that the market efficiently factors in its disapproval of entrenchment resistance at the outset of takeover bids.

Lastly, C.E.O.s of target firms using entrenchment opposition strategies have a materially greater likelihood of being turned over in the aftermath of takeover bids, relative to their pro-stockholder resisting counterparts. This finding therefore forthrightly reinforces the main conclusion from this study that takeover bids are characteristically disciplinary only when resisted for entrenchment reasons. Although the conflicting resistance motives do not independently extend to differentially affecting C.E.O.s' subsequent reputations in the managerial labour market, entrenchment resisting top managers have the most to fear in this regard because the probability of being a senior executive in a listed firm in the post-bid medium term is strongly dependent on their having not been turned over as a result of a takeover attempt.

Fundamentally, none of the target firm characteristics relevant in differentiating between entrenchment and information leakage motivated opposition strategies have explanatory power superseding the endogenous effects in the analysis concerning the impact of the nature of bid resistance on stockholder and manager related outcomes. This infers that prior findings of a significant relation between the effects of takeover bids and target firm specific factors, such as larger stockholder gains when incumbent boards are more independent (see, especially, Cotter, Shivdasani and Zenner, 1997), are likely to be a spurious result of a generalised formulation for bid resistance.

The findings and conclusions of this study are based on a sample of publicly resisted U.K. takeover bids from the period 1989-03. There are three main contributions from investigating the motives and outcomes of resisted bids in the U.K. setting, and specifically within this timeframe. First, the analysis of managers' motives for resisting takeover attempts is not mitigated by pre-emptive anti-takeover defences (latent or otherwise), the potential impediment effects of which are effectively nullified by the U.K. regulatory framework.

Second, the investigation of stockholder outcomes from bid opposition permits evaluation of the defining principle behind the U.K. takeover code preventing managers from actually implementing proposed frustrating action without owners' approval. The intent of Rule 21 of the Code is to facilitate competition in the takeover market and to ensure that contest outcomes are equitably resolved by stockholders. Consistent with this overriding regulatory objective, while the target firm and initial offer characteristics influencing entrenchment resistance strategies are distinct from those shaping information leakage responses, and although these dissimilarities are taken in to account by the market and the severity of managerial discipline determined accordingly, both final offer premiums and the likelihood of bid completion are unaffected, overall, by the nature of bid resistance.

Finally, although hostile bid activity per se is relatively less intense in the 1997-03 sub-period of the 1989-03 sample timeframe, proportionately more resisted takeover attempts are opposed for

entrenchment reasons in this later sub-period. The implication is that information leakage tactics, purely designed to increase target managers' bargaining power in the best interests of stockholders, are now increasingly being used to agree takeover bids in the private negotiation arena. A relative decline in information leakage resistance at the public bid level in the 1997-03 sub-period coincides with the takeover market being more competitive (as is evidenced by proportionately more third party solicitation attempts), and with bidders being more prone to approach target boards before resorting to by-pass bids.

Equally pertinent to explaining the changing nature of bid opposition over the sample timeframe is the fact that resisting boards are relatively more independent in the 1997-03 sub-period. Indeed, this study importantly finds that information leakage resistance strategies are significantly associated with boards structured so as to more effectively fulfil their oversight function, while the extant research documents that the structure of target boards may be important in determining the likelihood of a negotiated bid from the outset (see, especially, Bange and Mazzeo, 2004). However, it is interesting to note that the main aspect of board structure explicitly targeted in the U.K. corporate governance regulatory regime (the proportion of non-aligned and reputed directors), beginning with the Cadbury report, is only able to distinguish between entrenchment and information leakage resistance in the earlier (1989-96) sub-period of the sample timeframe when the exogenous forces shaping boards were far less potent.

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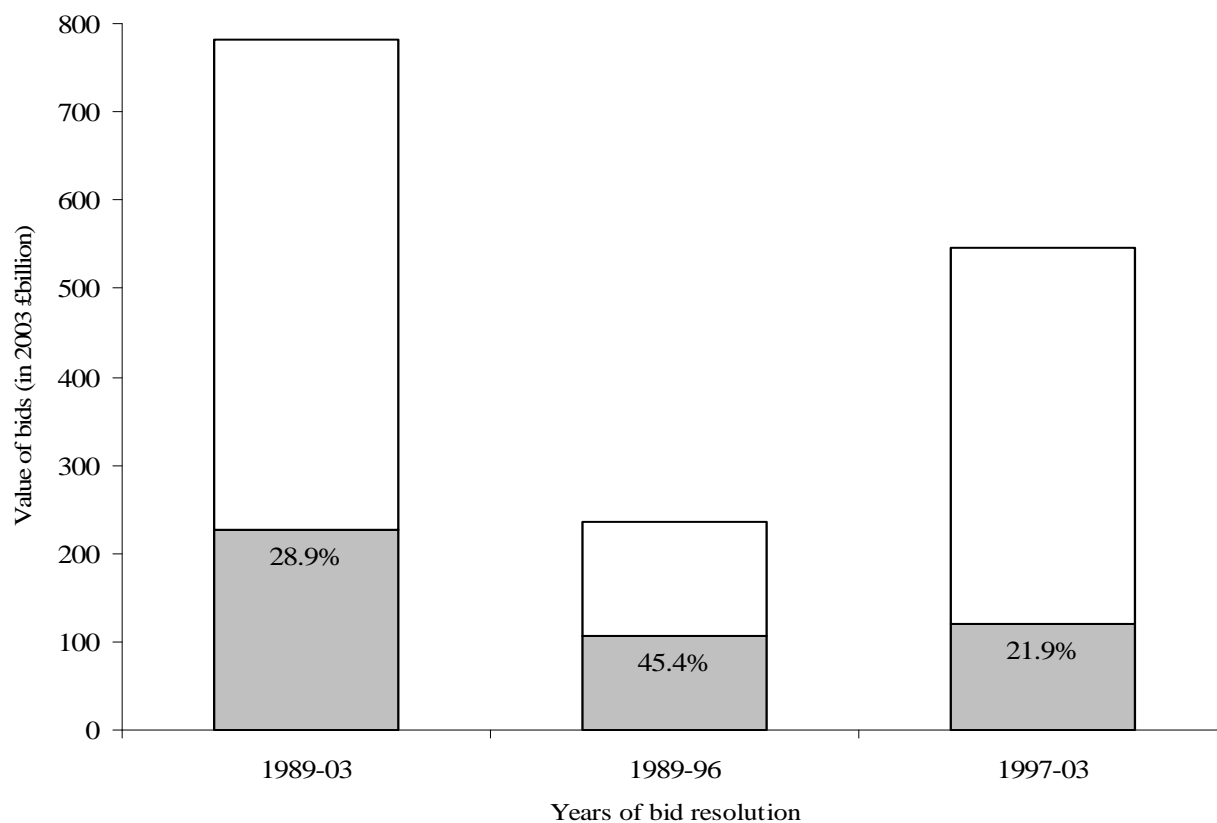
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**Table 1**  
**Relative frequency of hostile/unsolicited takeover bids for U.K. public firms**  
**1989-03**

<b>Year(s) of bid resolution</b>	<b>Number of bids</b>	<b>Number of bids hostile/unsolicited</b>	<b>Percentage of bids hostile/unsolicited</b>
1989	187	39	20.8
1990	142	26	18.3
1991	116	28	24.1
1992	68	13	19.1
1993	68	10	14.7
1994	72	11	15.3
1995	100	14	14.0
1996	100	15	15.0
1997	136	10	7.3
1998	192	20	10.4
1999	241	34	14.1
2000	197	21	10.7
2001	117	6	5.1
2002	83	13	15.7
2003	129	8	6.2
1989-03	1948	268	13.7
1989-96	853	156	18.3
1997-03	1095	112	10.2

Data on number of completed/failed bids and initial reception of takeover attempts is obtained from Acquisitions Monthly/S.D.C. Platinum Mergers and Acquisitions Database.

**Figure 1**  
**Relative value of hostile/unsolicited takeover bids for U.K. public firms 1989-03**



Percentage of bid value hostile/unsolicited equates to the shaded regions. Data on final value of completed/failed bids and initial reception of takeover attempts is obtained from Acquisitions Monthly/ S.D.C. Platinum Mergers and Acquisitions Database.

**Table 2**  
**Tactical characteristics of target board resistance for sample of 121 publicly rejected U.K. takeover bids 1989-03**

<i>Panel A: Descriptive statistics for bid resistance</i>		
<b>Bid resistance</b>	<b>1989-03 bids</b>	<b>1989-96 minus 1997-03 bids</b>
	<b>Proportion of targets</b>	<b>Z-statistic for difference in proportions</b>
Entrenchment strategy	0.44	-2.09*
Third party offer solicitation	0.34	-2.91**
Credibly higher profit forecast	0.24	2.20*
Pre-bid asset restructuring	0.15	0.15
Pre-bid management change	0.21	0.06

<i>Panel B: Percentage of entrenchment strategy targets using specific tactics</i>			
<b>Entrenchment tactics</b>	<b>1989-03 bids</b>	<b>1989-96 bids</b>	<b>1997-03 bids</b>
Spin-off/sell-off	49.1	61.5	37.0
Merger/acquisition/joint venture	32.1	30.8	33.3
Stock repurchase/ special dividend	15.1	7.7	22.2
Going-private transaction	9.4	3.8	14.8
Management change	9.4	11.5	7.4
White squire	7.5	7.7	7.4

Panel A: *Entrenchment strategy* involves use of at least one bid resistance tactic in Panel B. *Third party offer solicitation* is direct solicitation of a third party takeover attempt by the incumbent board. *Credibly higher profit forecast* is a profit report released by the target board with at least a 10 percent improvement on the last financial period. *Pre-bid asset restructuring* and *Pre-bid management change* involve the incumbent board initiating any corporate restructuring or management change in the year before either commencement of formal bid proceedings or any associated rumour of an impending takeover attempt.

\*\*, \* indicates significance at 1 and 5 percent levels, respectively.

Panel B: *Spin-off/sell-off* is a divestment denying a bidder access to assets of value from cash flow or break-up perspectives. *Merger/acquisition/joint venture* entails an amalgamation making the target firm cumbersome to acquire on size, strategic, and antitrust grounds, or, in the extreme case of a counter takeover attempt, eliminating a bidder directly. *Stock repurchase/special dividend* involves an exceptional payout to nullify a bidder's plans for efficient utilisation of excess cash, and, in the case of a targeted repurchase, increase proportion of stock under friendly holders' control. *Going private transaction* uses a competing management buyout to create a costly bidding contest, and resulting private control to prevent further unwanted takeover attempts. *Management change* makes removal of a newly appointed officer especially costly because of special contractual payments triggered by a takeover. *White squire* thwarts a takeover attempt by soliciting a friendly third party to acquire a strategic only blocking stake.

**Table 3**  
**Descriptive statistics for target firm and initial offer characteristics for sample of publicly rejected U.K. takeover bids 1989-03**

Target/initial offer characteristics	1989-03 bids		Proportion of targets/offers	Sample size	1989-96 minus 1997-03 bids		
	Mean	Median			T-stat. for mean diff.	Z-stat. for med. diff.	Z-stat. for prop. diff.
C.E.O. ownership (%)	1.81	0.10		121	0.32	0.01	
C.E.O. age	51.6	52.0		120	1.77	1.62	
Other directors' ownership (%)	2.21	0.38		121	1.26	-0.29	
Independent chairperson (=1)			0.35	121			-1.16
Independent directors (prop.)	0.18	0.17		121	-3.36**	-3.08**	
Board size	7.1	7.0		121	1.35	1.17	
Outside blockholdings (%)	29.3	30.0		121	-2.37*	-2.21*	
Valuation ratio	1.31	1.18		115	-0.33	0.82	
Asset turnover	1.39	1.28		115	1.18	1.85	
Recent full listed status (=1)			0.17	121			-0.92
Offer premium	0.34	0.28		120	-0.28	0.21	
Bidder toehold (%)	8.3			121	0.51	1.05	
Bidder/dissident director (=1)			0.12	121			0.62
Full cash terms (=1)			0.69	121			-1.66
Bidder approach (=1)			0.29	121			-2.76**

Target/initial offer characteristics: *C.E.O. ownership (%)* is the percentage of outstanding stock at the initial bid announcement date in which the most influential target officer (based on title, and, if no officer carries the title 'Chief Executive', on compensation) has a beneficial interest. *Other directors' ownership (%)* is the percentage of outstanding equity at the initial bid announcement date in which target directors other than the C.E.O. have a non-duplicated beneficial interest. *Independent chairperson (=1)* is a binary variable equal to one if the director serving as target chairperson at the initial bid announcement date is non-aligned (no personal, employment, or business connections to affect their oversight) and holds at least one other directorship, that is non-interlocking (non-aligned chairperson can serve as a C.E.O. provided target C.E.O. is not on the same board), in a listed firm outside the financial/real estate, utility/telecommunication, public transport, broadcasting, and newspaper industries. *Independent directors (prop.)* is the proportion of target board members (including the C.E.O.) at the initial bid announcement date that are non-aligned and hold at least one other (non-interlocking) directorship. *Board size* is the number of target firm directors (including the C.E.O.) at the initial bid announcement date. *Outside blockholdings (%)* is the percentage sum of non-aligned stock interests wielding at least 5 percent of total target equity votes (excluding initial bidder toeholds) at the initial bid announcement date. *Valuation ratio* is the average market to tangible book value of assets (where market value of assets is the

### **Table 3**

#### **Descriptive statistics for target firm and initial offer characteristics for sample of publicly rejected takeover bids 1989-03 (cont.)**

common stock price multiplied by the number of outstanding shares plus the book value of non-equity securities and total debt, and the denominator is total assets minus intangibles) of the target firm for the 2 financial years preceding the initial bid announcement date (adjusting the more recent market value of equity to just before an unofficial rumour period of 30 trading days plus any official rumour period). *Asset turnover* is the average sales to tangible assets ratio of the target firm for the 2 financial years preceding the initial bid announcement date. *Recent full listed status (=1)* is a binary variable equal to one if the target firm is flagged by the Corporate Register for having listed exchange tenure of 6 years or less at the initial bid announcement date. *Offer premium* is the proportionate difference between the unit initial offer value (using the bidder's stock price 5 trading days before the bid announcement date for offers involving an exchange of common stock) and the target firm's stock price (adjusted for rumour as per the *Valuation ratio*). *Bidder toehold (%)* is the percentage of total target equity votes controlled by the initial bidder and any connected parties immediately prior to offer announcement. *Bidder/dissident director (=1)* is a binary variable equal to one if the initial bidder has a representative on the target board, or a dissident target director pledges support for this bidder. *Full cash terms (=1)* is a binary variable equal to one if the initial bid offers full cash terms (including a full cash alternative to the main terms). *Bidder approach (=1)* is a binary variable equal to one if the initial bidder makes a genuine approach to the target board before launching their bid.

Sample size is determined by missing observations.

\*\*, \* indicates significance at 1 and 5 percent levels, respectively.

**Table 4****Logistic regressions for likelihood of target board resistance being entrenchment motivated for sample of publicly rejected U.K. takeover bids 1989-03**

Target/initial offer characteristics	Probability (bid resistance entrenchment motivated)							
	Model (1)		Model (2)		Model (3)		Model (4)	
	Coeff.	Z-stat.	Coeff.	Z-stat.	Coeff.	Z-stat.	Coeff.	Z-stat.
C.E.O. ownership (%)	0.295**	(3.14)	0.306**	(3.20)	0.296**	(3.12)	0.258**	(2.98)
C.E.O. age	1.801*	(2.50)	1.764*	(2.44)	1.833*	(2.49)	1.850*	(2.46)
(C.E.O. age) <sup>2</sup>	-0.163*	(-2.39)	-0.160*	(-2.34)	-0.167*	(-2.40)	-0.170*	(-2.38)
Other directors' ownership (%)	-0.499**	(-3.17)	-0.540**	(-3.28)	-0.534**	(-3.30)	-0.555**	(-3.49)
Independent chairperson (=1)	-1.350*	(-2.25)	-1.290*	(-2.11)				
Independent directors (prop.)					-2.533	(-1.21)		
Independent directors (prop.) × 1989-96 bid (=1)							-7.009**	(-2.63)
Board size	-0.968	(-0.68)	-0.153	(-1.05)	-0.142	(-0.99)	-0.150	(-1.11)
Outside blockholdings (%)	-0.532**	(-2.65)	-0.567**	(-2.70)	-0.538**	(-2.72)	-0.430*	(-2.37)
Valuation ratio	-1.271*	(-2.13)	-1.525*	(-2.38)	-1.492*	(-2.27)	-1.395*	(-2.16)
Asset turnover	-1.100**	(-2.58)	-1.165**	(-2.69)	-1.139**	(-2.74)	-1.278**	(-3.09)
Recent full listed status (=1)	-3.871**	(-2.93)	-3.926**	(-3.01)	-3.830**	(-3.11)	-3.970**	(-3.16)
Offer premium	2.293**	(2.70)	2.145*	(2.46)	2.084*	(2.45)	1.844*	(2.24)
Bidder toehold (%)	-0.223	(-0.81)						
Bidder/dissident director (=1)			-1.991	(-1.86)	-1.993	(-1.85)	-2.460*	(-2.22)
Full cash terms (=1)	-1.011	(-1.46)	-1.1501	(-1.71)	-1.083	(-1.62)	-0.760	(-1.22)
Bidder approach (=1)	0.708	(1.10)	0.781	(1.21)	0.857	(1.35)	0.960	(1.54)
Pre-bid run-up	0.957	(1.24)	1.072	(1.36)	1.213	(1.57)	1.029	(1.39)
1989-96 bid (=1)	-2.095**	(-2.88)	-2.088**	(-2.90)	-2.147**	(-2.91)		

**Table 4****Logistic regressions for likelihood of target board resistance being entrenchment motivated for sample of publicly rejected U.K. takeover bids 1989-03 (cont.)**

Target/initial offer characteristics	Probability (bid resistance entrenchment motivated)			
	Model (1)	Model (2)	Model (3)	Model (4)
Likelihood ratio	60.916**	64.272**	60.972**	58.741**
Pseudo R-square	0.389	0.410	0.389	0.375
Hosmer-Lemeshow chi-square	5.530	3.269	7.280	12.085
Sample size	114	114	114	114

Probability (bid resistance entrenchment motivated): Bid resistance entrenchment motivated is a binary variable equal to one if it involves use of at least one tactic in Panel B of Table 2.

Target/initial offer characteristics: Most are as defined for Table 3. *Pre-bid run-up* is the daily cumulative market (FT-SE All Share index) adjusted target stock return over the 12 month period ending 30 trading days either prior to the earliest release concerning bid rumour, or the initial offer announcement if there is no formal disclosure anticipating a takeover attempt. *1989-96 bid (=1)* is a binary variable equal to one if the initial takeover bid is publicly resisted in the relatively more active hostile bid period (1989-96) of the sample timeframe.

Constant terms, and a series of binary variables one of which is equal to one dependent on which one of the four London Stock Exchange economic sectors (resources/basic industries, general industrials, consumer goods, and services) a target firm operates, are non-tabulated in each model for reasons of brevity.

Sample size is determined by missing observations.

\*\* , \* indicates significance at 1 and 5 percent levels, respectively.

**Table 5**  
**10th to 90th percentile effect of statistically important target firm and initial offer characteristics on odds of board resistance being entrenchment motivated for sample of publicly rejected U.K. takeover bids 1989-03**

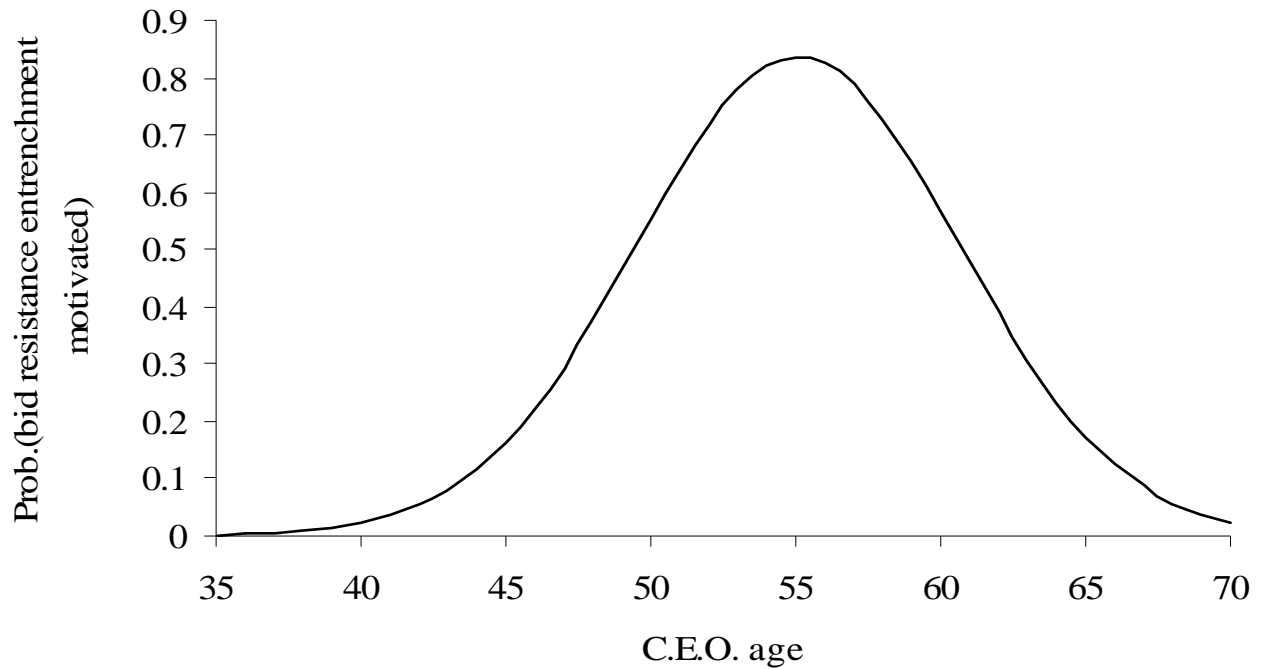
Target/initial offer characteristics	Value at 10th percentile	Value at 90th percentile	Percentile change effect on odds (bid resistance entrenchment motivated)
C.E.O. ownership (%)	0.00	4.20	261% increase
Other directors' ownership (%)	0.02	4.80	92% decrease
Independent chairman (=1)	0	1	72% decrease
Independent directors (prop.) × 1989-96 bid (=1)	0.00	0.25	83% decrease
Outside blockholdings (%)	0.0	54.0	95% decrease
Valuation ratio	0.86	2.05	84% decrease
Asset turnover	0.37	2.33	90% decrease
Recent full listed status (=1)	0	1	98% decrease
Offer premium	-0.04	0.82	533% increase

Percentile change effect on odds (bid resistance entrenchment motivated): Bid resistance is entrenchment motivated if it involves use of at least one tactic in Panel B of Table 2. Odds are estimated as  $[e^{(\text{coefficient} \times 10\text{th} \text{ minus } 90\text{th} \text{ percentile value difference})} - 1]$  for each target/initial offer characteristic, where coefficients are from Model (2) of Table 4, except for *Independent directors (prop.) × 1989-96 bid (=1)*, where the parameter is from Model (4).

Target/initial offer characteristics: Most are as defined for Table 3. *1989-96 bid (=1)* is a binary variable equal to one if the initial takeover bid is publicly resisted in the relatively more active hostile bid period (1989-96) of the sample timeframe.

**Figure 2**

**Relation between chief executive officer (C.E.O.) age and likelihood of target board resistance being entrenchment motivated for sample of publicly rejected U.K. takeover bids 1989-03**



Bid resistance is entrenchment motivated if it involves use of at least one tactic in Panel B of Table 2. Probability (bid resistance entrenchment motivated) is estimated based on the parameters of Model (2) in Table 4 and holding the other target/initial offer characteristics at their mean values.

**Table 6**  
**Linear regressions for announcement period cumulative abnormal returns (C.A.R.s) for sample of publicly rejected U.K. takeover bids 1989-03**

Bid resistance/ initial offer/ target characteristics	Announcement period C.A.R.s					
	Model (1)		Model (2)		Model (3)	
	Coeff.	T-stat.	Coeff.	T-stat.	Coeff.	T-stat.
Resistance entrenchment motivated (=1)	-0.033	(-1.12)				
Offer premium	0.514**	(13.77)	0.632**	(12.19)	0.614**	(12.89)
Offer premium × Resistance entrenchment motivated (=1)			-0.181**	(-3.26)	-0.170**	(-3.39)
Bidder toehold (%)					-0.004**	(-3.81)
Full cash terms (=1)					0.129**	(4.43)
Target size (ln)					0.027**	(3.61)
Adjusted R-square		0.614		0.643		0.731
F-statistic		94.91**		107.16**		65.16**
Sample size		119		119		119

Announcement period C.A.R.s: Daily cumulative abnormal (FT-SE All Share index adjusted) target stock returns over the period from 30 trading days before bid rumour, or formal announcement if no prior 12 month rumour related disclosure, through to the initial offer announcement date.

Bid resistance/ initial offer/ target characteristics: *Resistance entrenchment motivated (=1)* is a binary variable equal to one if bid resistance involves use of at least one tactic in Panel B of Table 2. Most initial offer/ target characteristics are as defined for Table 3. *Target size (ln)* is the natural logarithm of the market value of assets of the target firm for the financial year preceding the initial bid announcement date, where market value of assets is the common stock price (adjusted to just before an unofficial rumour period of 30 trading days plus any official rumour period) multiplied by the number of outstanding shares plus the book value of non-equity securities and total debt.

Constant terms are non-tabulated in each model for reasons of brevity.

Sample size is determined by missing observations.

\*\* , \* indicates significance at 1 and 5 percent levels, respectively.

**Table 7**  
**Linear and logistic regressions for initial offer characteristics for sample of publicly rejected U.K. takeover bids 1989-03**

Bid resistance/ initial offer/ target characteristics	Initial offer characteristics					
	Model (1)		Model (2)		Model (3)	
	Offer premium		Bidder toehold (%)		Prob. (bidder approach)	
	Coeff.	T-stat.	Coeff.	T-stat.	Coeff.	Z-stat.
Resistance entrenchment motivated (=1)	0.057	(0.80)	1.376	(0.61)	0.295	(0.67)
Offer premium			-5.585*	(-2.05)	1.045	(1.93)
Bidder toehold (%)	-0.005*	(-2.05)			0.035*	(2.24)
Full cash terms (=1)			8.410**	(3.51)		
Bidder approach (=1)	0.153	(1.96)	5.645*	(2.32)		
Outside blockholdings (%)			0.255**	(4.45)		
Pre-bid run-up	-0.177*	(-2.14)				
1989-96 bid (=1)			6.308**	(2.69)	-1.169**	(-2.65)
Adjusted R-square		0.079		0.283		
F-statistic		3.56**		8.81**		
Likelihood ratio						15.439**
Pseudo R-square						0.107
Hosmer-Lemeshow chi-square						15.390
Sample size		120		120		120

Initial offer characteristics: All are as defined for Table 3.

Bid resistance/ initial offer/ target characteristics: *Resistance entrenchment motivated (=1)* is a binary variable equal to one if bid resistance involves use of at least one tactic in Panel B of Table 2. Most initial offer/ target characteristics are as defined for Table 3. *Pre-bid run-up* is the daily cumulative market (FT-SE All Share index) adjusted target stock return over the 12 month period ending 30 trading days either prior to the earliest release concerning bid rumour, or the initial offer announcement if there is no formal disclosure anticipating a takeover attempt. *1989-96 bid (=1)* is a binary variable equal to one if the initial takeover bid is publicly resisted in the relatively more active hostile bid period (1989-96) of the sample timeframe.

Constant terms are non-tabulated in each model for reasons of brevity.

Sample size is determined by missing observations.

\*\*, \* indicates significance at 1 and 5 percent levels, respectively.

**Table 8**  
**Descriptive statistics for target stockholder and chief executive officer (C.E.O.) outcomes for sample of publicly rejected U.K. takeover bids 1989-03**

Stockholder/C.E.O. outcomes	1989-03 bids			1989-96 minus 1997-03 bids			
	Mean	Median	Proportion of bids/C.E.O.s	Sample size	T-stat. for mean diff.	Z-stat. for med. diff.	Z-stat. for prop. diff.
Final bid premium	0.54	0.47		120	-0.73	-0.49	
Bid premium revision	0.19	0.11		120	-0.99	-0.86	
Overall C.A.R.	0.24	0.31		120	-1.11	-1.10	
Post-announcement period C.A.R.	0.01	0.04		119	-1.56	-0.97	
Completed bid (=1)			0.70	121			-1.07
C.E.O. turnover (=1)			0.45	121			0.32
C.E.O. without post-bid top executive ship (=1)			0.73	121			-0.57
C.E.O. without post-bid directorship (=1)			0.58	121			-1.01

Stockholder/C.E.O. outcomes: *Final bid premium* is the difference between the unit worth of the outlasting offer (which can be any subsequent takeover bid announced within 12 months of an unsuccessful resolution to the original contest, and where exchange offers are valued based on the outlasting bidder's stock price 5 trading days before their initial bid terms are announced) and the target's stock price 30 trading days before initiation of the original takeover attempt (where initiation is the first reported rumour date within 12 months of formal bid announcement, or the bid announcement date if the takeover attempt is not officially anticipated) divided by the pre-contest value. *Bid premium revision* is the difference between the final and initial bid premiums, where the initial bid premium is the proportionate difference between the unit initial offer value (using the bidder's stock price 5 trading days before the bid announcement date for offers involving an exchange of common stock) and the target firm's stock price (adjusted for rumour as per the *Final bid premium*). *Overall C.A.R.* is the daily cumulative abnormal (FT-SE All Share index adjusted) target stock return from 30 trading days before initiation of the original takeover attempt (as per the *Final bid premium*) through either contest completion, or 12 months post-bid failure during which extended time no other offers materialise. *Post-announcement period C.A.R.* is the difference between the overall and announcement period C.A.R.s, where the announcement period C.A.R. is the daily cumulative abnormal target stock return from 30 trading days before initiation of the original takeover attempt (as per the *Final bid premium*) through to the initial offer announcement date. *Completed bid (=1)* is a binary variable equal to one if the outlasting bid is ultimately declared unconditional in all respects. *C.E.O. turnover (=1)* is a binary variable equal to one if the target top manager (based on title, and, if no officer carries the title 'Chief Executive', on compensation) either is turned over by the successful bidder, or relinquishes office in the 12 months following a failed takeover attempt during which extended time no other offers materialise. *C.E.O. without post-bid top executive ship (=1)* and *C.E.O. without post-bid directorship (=1)* is a binary variable equal to one if the target C.E.O. serves as a top manager and in any capacity, respectively, on the board of a listed firm, outside the financial/real estate, utility/telecommunication, public transport, broadcasting, and newspaper industries, in any of the two years following either bid completion, or the 12 month period after the failure of a takeover attempt during which extended time no other offers materialise.

Sample size is determined by missing observations.

\*\*, \* indicates significance at 1 and 5 percent levels, respectively.

**Table 9**

**Linear regressions for final premiums and overall cumulative abnormal returns (C.A.R.s) for sample of publicly rejected U.K. takeover bids 1989-03**

Resistance/ final bid/ target characteristics	Model (1)		Model (2)		Model (3)		Model (4)	
	Final bid premium		Bid premium revision		Overall C.A.R.		Post-announcement period C.A.R.	
	Coeff.	T-stat.	Coeff.	T-stat.	Coeff.	T-stat.	Coeff.	T-stat.
Resistance entrenchment motivated (=1)	0.125	(1.25)	0.018	(0.36)				
Final bid premium					0.684**	(8.14)		
Final bid premium × Resistance entrenchment motivated (=1)					-0.227**	(-2.67)		
Bid premium revision							0.655**	(4.40)
Bid premium revision × Resistance entrenchment motivated (=1)							-0.197	(-1.18)
Completed bid (=1)					0.086	(1.19)	0.153*	(2.27)
Third party offer (=1)	0.467**	(3.85)	0.299**	(4.75)	-0.144	(-1.68)	-0.163*	(-1.99)
Full cash bid (=1)					0.323**	(4.45)	0.223**	(3.28)
Target size (ln)					0.051**	(2.81)	0.018	(1.07)
Adjusted R-square	0.098		0.152		0.532		0.332	
F-statistic	7.46**		11.63**		23.54**		10.78**	
Sample size	120		120		120		119	

Final bid premium/ Bid premium revision/ Overall C.A.R./ Post-announcement period C.A.R.: All are as defined for Table 8.

Resistance/ final bid/ target characteristics: *Resistance entrenchment motivated (=1)* is a binary variable equal to one if bid resistance involves use of at least one tactic in Panel B of Table 2. Most final bid characteristics are as defined for Table 8. *Third party offer (=1)* is a binary variable equal to one if an actual bid is announced from a third party subsequent to the initial hostile bidder's first offer and up to 12 months after any previously unsuccessful takeover attempt. *Full cash bid (=1)* is a binary variable equal to one if the outlasting bid (which can be any subsequent takeover bid announced within 12 months of an unsuccessful resolution to the original contest) offers full cash terms (including full cash alternative terms). *Target size (ln)* is the natural logarithm of the market value of assets of the target firm for the financial year preceding the initial bid announcement date, where market value of assets is the common stock price (adjusted to just before an unofficial rumour period of 30 trading days plus any official rumour period) multiplied by the number of outstanding shares plus the book value of non-equity securities and total debt.

Constant terms are non-tabulated in each model for reasons of brevity.

Sample size is determined by missing observations.

\*\* , \* indicates significance at 1 and 5 percent levels, respectively.

**Table 10**

**Logistic regressions for likelihood of completed bids and chief executive officer (C.E.O.) disciplinary outcomes for sample of publicly rejected U.K. takeover bids 1989-03**

Resistance/ final bid/ target characteristics	Model (1)		Model (2)		Model (3)		Model (4)		Model (5)	
	Prob. (completed bid)				Prob. (C.E.O. turnover)		Prob. (C.E.O. without post-bid top executive ship)		Prob. (C.E.O. without post-bid directorship)	
	Coeff.	Z-stat.	Coeff.	Z-stat.	Coeff.	Z-stat.	Coeff.	Z-stat.	Coeff.	Z-stat.
Resistance entrenchment motivated (=1)	-0.841*	(-2.07)	-0.382	(-0.84)	0.925*	(2.17)	0.540	(1.15)	0.598	(1.35)
Completed bid (=1)					1.518**	(3.07)	1.508**	(3.21)	1.376**	(2.91)
Third party offer (=1)			2.161*	(2.02)						
Full cash bid (=1)			1.694**	(3.66)						
Pre-bid run-up					-1.135*	(-2.12)				
Target size (ln)							-0.363*	(-2.51)	-0.576**	(-3.87)
Likelihood ratio	4.383*		28.986**		19.463**		18.050**		27.879**	
Pseudo R-square	0.030		0.197		0.118		0.128		0.170	
Hosmer-Lemeshow chi-squire	9.049		2.973		19.120*		20.173**		5.705	
Sample size	121		121		120		120		120	

Prob. (completed bid)/ Prob. (C.E.O. turnover)/ Prob. (C.E.O. without post-bid top executive ship)/ Prob. (C.E.O. without post-bid top directorship): Completed bid/ C.E.O. turnover/ C.E.O. without post-bid top executive ship/ C.E.O. without post-bid top directorship are all binary variables equal to one as defined for Table 8.

Resistance/ final bid/ target characteristics: *Resistance entrenchment motivated (=1)* is a binary variable equal to one if bid resistance involves use of at least one tactic in Panel B of Table 2. *Completed bid (=1)* is as defined for Table 8. *Third party offer (=1)* is a binary variable equal to one if an actual bid is announced from a third party subsequent to the initial hostile bidder's first offer and up to 12 months after any previously unsuccessful takeover attempt. *Full cash bid (=1)* is a binary variable equal to one if the outlasting bid (which can be any subsequent takeover bid announced within 12 months of an unsuccessful resolution to the original contest) offers full cash terms (including full cash alternative terms). *Pre-bid run-up* is the daily cumulative market (FT-SE All Share index) adjusted target stock return over the 12 month period ending 30 trading days either prior to the earliest release concerning bid rumour, or the initial offer announcement if there is no formal disclosure anticipating a takeover attempt. *Target size (ln)* is the natural logarithm of the market value of assets of the target firm for the financial year preceding the initial bid announcement date, where market value of assets is the common stock price (adjusted to just before an unofficial rumour period of 30 trading days plus any official rumour period) multiplied by the number of outstanding shares plus the book value of non-equity securities and total debt.

Constant terms are non-tabulated in each model for reasons of brevity.

Sample size is determined by missing observations.

\*\*, \* indicates significance at 1 and 5 percent levels, respectively.