

INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each original is also photographed in one exposure and is included in reduced form at the back of the book.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

U·M·I

University Microfilms International
A Bell & Howell Information Company
300 North Zeeb Road, Ann Arbor, MI 48106-1346 USA
313/761-4700 800/521-0600

Order Number 9130394

Management buyouts: The management/shareholder conflict

Zelcer, Moishe, Ph.D.

City University of New York, 1991

U·M·I

**300 N. Zeeb Rd.
Ann Arbor, MI 48106**

A

MANAGEMENT BUYOUTS
THE MANAGEMENT/SHAREHOLDER CONFLICT

by

Moishe Zelcer

A dissertation submitted to the Graduate Faculty in
Business in partial fulfillment of the requirements
for the degree of Doctor of Philosophy,
The City University of New York

1991

This manuscript has been read and accepted for the Graduate Faculty in Business in satisfaction of the dissertation requirement for the degree Doctor of Philosophy.

3/28/91
Date

Arthur Pasternak
Chair of Examining Committee

5-2-91
Date

Ronald Kedenburgh
Executive Officer

Dr. Martin Benis

Dr. Harry Z. Davis

Dr. Hyman Sardy, Outside Reader

Supervisory Committee

The City University of New York

Abstract

**MANAGEMENT BUYOUTS
THE MANAGEMENT/SHAREHOLDER CONFLICT**

by

Moishe Zelcer

Adviser: Professor Victor Pastena

This paper examines the management/shareholder struggle for corporate control as it is played out in the takeover arena. Does management engage in opportunistic behavior in an effort to acquire the firm at an unfair price? What factors either motivate or enable management to stage a leveraged buyout (LBO)?

A sample of 52 management buyout offers and 140 third party buyout offers are studied to determine if management underbids for the firm. The level of discretionary accruals at the two types of target firms and at a control group are compared in an effort to ascertain if management is depressing reported income prior to its announcement of the buyout offer. The effects of management compensation and stock ownership by management are also examined to determine their role in the market for corporate control.

This paper finds that the initial bid premium offered by management is significantly lower than the initial bid premium offered by third party bidders. The evidence in support of the claim that management is using negative accruals in an effort to depress the price of the stock is not conclusive, and is

dependent on the definition of discretionary accruals. High levels of cash compensation and high levels of stock ownership by management are shown to facilitate a management buyout. Management buyout targets are shown to be significantly smaller than targets of third party bidders, and this may be an additional feasibility factor in management's decision to stage a LBO.

Consequently, shareholders are well advised to reject management's initial bid during a LBO, and third party bidders should not hesitate to counter management's initial bid with an offer of a higher bid premium.

The lack of evidence that management is manipulating reported income is consistent with a majority of the papers which have examined this issue. This paper contributes to the literature by comparing management LBOs to third party buyouts and to a control sample of non-target firms. The time period studied is recent and updates previous research in this area.

DEDICATION:

To my wife **Goldie**, without whose encouragement and assistance this paper would not have been possible. And to my children, who will now discover that they do in fact have a father.

A NOTE OF APPRECIATION:

I am deeply appreciative of the guidance and support provided by my dissertation committee, Victor Pastena (Chair), Martin Benis and Harry Z. Davis. I am also deeply indebted to Steven Lilian, Hyman Sardy, Edward Shoenthal, Bernard Okun and Adelaide Whelan for their valuable comments and suggestions.

Table of Contents

I.	INTRODUCTION.....	2
II.	LITERATURE REVIEW.....	4
	A. Wealth Gains from Mergers and Takeovers...	6
	B. Managerial Resistance.....	9
	C. Motivations for Mergers and Takeovers.....	12
III.	THE THEORY OF MANAGEMENT BUYOUTS.....	18
	A. The Shareholder/Management Conflict.....	20
	1. The Bid Premium.....	20
	2. Accounting Choice.....	26
	B. Feasibility Test or Defensive Tactic.....	30
	1. Management Compensation.....	31
	2. Stock Ownership.....	34
	C. Summary.....	39
IV.	RESEARCH DESIGN.....	41
	A. Sample Selection.....	41
	1. The Management Buyout (MBO) Sample...	48
	2. The Third Party Tender Offer (TPTO) Sample.....	48
	B. Hypotheses Testing.....	49
	1. Target Type.....	50
	2. The Bid Premium.....	50
	3. Accruals.....	52
	4. Compensation.....	56
	5. Stock Ownership.....	56
	6. Assets.....	57
	7. Tax Loss Carryforwards.....	57
	8. Industry.....	57
V.	EMPIRICAL RESULTS.....	60
	A. Univariate Analysis.....	60
	B. Multivariate Analysis.....	66
	1. Regression Analysis.....	67
	2. Discriminant Analysis.....	68
	3. Logit Analysis.....	70
VI.	SUMMARY AND CONCLUSIONS.....	74
	TABLES.....	78
	APPENDICES.....	94
	BIBLIOGRAPHY.....	101

List of Tables

Table	Page
I.	Frequency of Tender Offers by Year..... 78
II.	Sample of Management Buyout (MBO) Firms..... 79
III.	Sample of Third Party Tender Offer (TPTO) Firms... 80
IV.	Distribution of Sample Firms by Industry..... 83
V.	Summary Statistics by Variable..... 84
VI.	T-Tests for Differences in the Mean..... 85
VII.	Accrual Models: T-Tests for Differences in the Mean 86
VIII.	Regression Analysis Results..... 87
IX.	Logit Analysis Results..... 88
X.	Sensitivity Analysis - Regression Models..... 89
XI.	Sensitivity Analysis - Logistic Models..... 90
XII	Discriminant Analysis - Within Correlation Coefficients..... 91
XIII	Discriminant Analysis - Partial Correlation Coefficients Computed from Pooled Covariance Matrix..... 92
XIV	Number of Observations and Percents Classified.... 93

MANAGEMENT BUYOUTS

The Management/Shareholder Conflict

If my analysis of the LBO is even close to correct, something is drastically wrong. If the LBO is a means whereby management can take large amounts of value away from its lawful owners, stockholders, by means of stealth, cunning and breach of law, and if that is now a normal part of American finance, some changes are in order (Stein [1987]).

There certainly exists much anecdotal evidence to support the claim that management reaps large gains in a management led leveraged buyout (LBO). The same evidence further suggests that, although shareholders in LBO targets also reap significant gains, they are not of the magnitude of those captured by management. Indeed, the popular press has often accused management of "stealing" the firm from its shareholders by paying too little for the companies they buy and then taking them public later at huge profits.

This paper finds significant empirical evidence in support of the argument that management underpays for the firm in an LBO. Evidence is also presented to support the contention that managers attempt to depress the price of the stock prior to announcing an LBO. Management's motivations in staging a buyout are also studied, and it is shown that the level of management's compensation and stock ownership in the firm are significant factors in management's decision to stage an LBO.

I. INTRODUCTION

Two hypotheses have often been advanced to explain the actions of management in the market for corporate control. The shareholder welfare hypothesis asserts that management will act to maximize shareholder value, regardless of the impact of such action on management's own wealth. In contrast, the managerial welfare hypothesis asserts that management will act to maximize its own utility, often at the expense of shareholders.

The merger and takeover activity of the last few decades has proven to be a popular arena for the testing of the conflicting predictions made by these two hypotheses. The potential for shareholder/management conflict is particularly pronounced in such a setting, and the actions of management or the consequences of those actions are often clearly visible to the researcher.

The studies in the accounting, finance and economics literature which examine these hypotheses can be loosely categorized into two groups. Capital market studies have examined the question of wealth maximization or shifts in wealth among the different parties to a merger or takeover. The other area of research has adopted the agency theory as a framework within which to examine the actions of management during mergers and takeovers. The goal of these studies being to ascertain the motivations which prompted the observed activity. Both of these areas will be reviewed in a later section of this paper.

This study, however, focuses on management buyout (MBO) offers and seeks to establish if the motivations of management are consistent with the management welfare hypothesis or the shareholder welfare hypothesis. Four alternative predictions from the shareholder welfare and management welfare hypotheses are developed and their implications tested.

The next section of the paper reviews the literature which has examined the wealth gains from mergers and takeovers and the factors which motivate mergers and takeovers. The third section develops the theory of management buyouts and four testable hypotheses. The fourth section presents the research design and the methodology employed. The fifth section details the research results, while the last section gives a summary and conclusion.

II. LITERATURE REVIEW

Since management buyouts are transactions initiated by management while third-party tenders are usually "surprises" to management, management buyouts should be preceded by significant management deliberations. Management will carefully analyze the proposed transaction, secure commitments for the necessary funds and initiate any other required actions in preparation for the buyout. If the critics of management buyouts are correct in their contentions (i.e. if the management welfare hypothesis controls), some of the actions taken by management might also include those designed to depress the market price of the public shares. Management of firms that are not targets of management buyouts will not, *ceteris paribus*, have the opportunity nor the motivations to take such actions.

There is adequate documentation in the literature to support the contention that management does not always make decisions that are in the best interests of its shareholders. For example, in the merger/bankruptcy decision, Pastena and Ruland (1986) conclude that "the self-interests of managers, rather than just the interests of shareholders and creditors, seems to help motivate the merger/bankruptcy choice." In two reviews of the merger/acquisition literature, both Lev (1983) and Jensen and Ruback (1983) conclude that managers have incentives to act in their own self-interest.

This paper posits that there are, therefore, two distinct

groups of merger/takeover targets (management buyout targets and third party tender offer (TPTO) targets), that the respective managements of these two groups are differently motivated, and that the different motivations are reflected by significantly different financial variables. Four hypotheses and the variables implied by them are proposed in the following section.

It should be noted at this point, that this paper does not have as its objective any attempt to identify or predict which firms are likely targets of tender offers. Both of the samples studied are already known to be targets of either management or third party tenders. Consequently, the following discussion of management's motivations is not intended to include reasons why management would choose to acquire or merge with one particular firm and not with an other. Rather, this discussion focuses on management's motivations for staging a management buyout, and management's possible actions given the contemplated buyout. Of course, the results reported in the final two sections of this paper could be useful in the construction of models designed to predict potential merger/takeover candidates.

Prior to identifying the specific areas where the motivations of managers and shareholders might diverge, it would be useful to review that body of literature which attempts to explain why individuals or firms engage in tender offers, and the literature which addresses the wealth maximizing effects of mergers and takeovers.

A. Wealth Gains from Mergers and Takeovers

Many studies have shown that shareholders of target firms earn large excess returns around the date of the tender offer announcement. These excess returns result from the premium offered by the bidder. Shareholders of the bidding firm, however, do not earn such returns, and may even suffer a loss.

One of the earliest of the "modern" papers to examine the returns to shareholders of both target and bidding firms was Dodd and Ruback (1977). While prior studies had used the effective date of the merger as the event date, they defined the event date as the date of the first public announcement of the takeover, and analyzed abnormal returns around that date. Both successful and unsuccessful tender offers were examined. They found that shareholders of the target firm earn large excess returns whether the tender offer was successful or not. Most of the returns occurred in the month of the offer. Shareholders of bidding firms also earned excess returns in the twelve months prior to the tender offer. However, only shareholders of successful bidding firms earned excess returns in the month of the tender offer.

In a comprehensive review of the literature, Jensen and Ruback (1983) summarize over forty papers dealing with tender offers and mergers. They conclude that for successful tender offers, the shareholders of the target firm earn abnormal returns of 30% and shareholders of the bidding firm earn 4%. The returns

for unsuccessful tender offers are -3% and -1% for target and bidding firms, respectively.

For a sample of 336 completed mergers, Malatesta (1983) measured the wealth effect in terms of the abnormal dollar return calculated over a 60 month period prior to the announcement month. He concluded that only in the five month interval preceding the announcement date do shareholders of the acquired firm earn excess returns. If the horizon is extended to 61 months, the returns are actually negative. As for acquiring firms, shareholders of such firms suffer wealth loss both immediately and well before a merger.

Bradley, Desai and Kim (1988, examined an exhaustive sample of successful tender offers effected between 1963 and 1984. They report that the average synergistic gain created by the 236 offers was \$117 million, which represented a 7.4% increase in the combined wealth of the shareholders of the acquiring and target firms. They note, however, that the lion's share of the gain accrues to the target firm's shareholders. In fact, since the passage of the Williams Amendment in 1986, acquiring firms have suffered a significant loss, even though the total gain has remained fairly constant.

Roll (1986) also reports significantly negative returns to bidding shareholders.

DeAngelo, DeAngelo and Rice (1984) show that "minority

freezeouts," where management already owns the majority of the outstanding shares, do result in significant shareholder gains. In the two days surrounding the initial proposal to go private, the wealth of the shareholders increased 22.27%, and decreased 8.88% when the proposal was withdrawn.

Amihud, Dodd and Weinstein (1986) partitioned their sample of 236 acquiring firms into manager controlled and shareholder controlled firms. They report that neither sample exhibited evidence of abnormal returns in the ten days preceding the day of the first public announcement of the merger, and that there was no significant difference in the returns earned by the shareholders of the two types of firms.

Amoako-Adu and Yagil (1986) examined stock price behavior during the 24 month period surrounding the announcement date of the merger for a sample of 36 firms traded on the Toronto Stock Exchange. They found that excess returns of 34% were observable for the period two months before to two months after the announcement month. Similar results were obtained for the buying firms and the selling firms.

Dennis and McConnell (1986) examined securities other than common stock and found that all classes of securities of the acquired (target) firm either gain in a merger or do not lose. However, only the common and convertible preferred stock of the acquiring firm gain in a merger.

Interestingly, Stulz, Walkling and Song (1990) show that the distribution of target firm ownership plays a role in the amount of takeover gain realized by the target firm. Target firms with a higher percentage of its shares controlled by management show greater average gains than firms characterized by institutional ownership.

Not only do announcements of mergers and tender offers have wealth effects, but other announcements related to mergers and takeovers also have wealth effects. Mikkelson and Ruback (1985) show that even the filing of a 13D with the SEC (required for an investment of 5% or more) is a significant event and generally increase shareholder wealth. Schipper and Thompson (1983) have shown that regulatory pronouncements which may effect mergers and takeovers also have an impact on shareholder wealth.

Announcements of divestitures [Rosenfeld (1984)], voluntary sell-offs (Jain (1985)) and joint ventures [McConnell and Nantell (1985)] have also been shown to effect shareholder wealth.

In summary, most studies show that significant gains accrue to the shareholders of target firms. However, the results for the bidding firm's shareholders are mixed. At best, the gains to bidding shareholders are slightly positive, and significantly negative in some studies.

B. Managerial Resistance

If target shareholders realize large gains, why does manage-

ment quite frequently resist a takeover offer? A number of studies have looked at the wealth gains to shareholders when management of the target firm resisted the takeover attempt. Dodd (1980) proposed that managerial resistance to a merger could be in the best interest of the shareholders. He compared merger proposals that were terminated as a result of a managerial veto to merger proposals that were canceled but not vetoed by management, arguing that vetoed proposals could be viewed by the market in a more favorable light. His results show that where the target firm's management terminated the negotiations, the shareholders earned 10.95% over the duration of the proposal. However, where the merger was canceled, but not vetoed by management, the return to the shareholders was only 0.18%.

Bradley (1980) also concluded that managerial resistance to a tender offer could be in the best interest of the shareholders. He found that in a sample of 97 unsuccessful tender offers, target shareholders realized a gain of 45% compared to the actual premium offered of 29%.

More recent research, however, tends to view managerial resistance as not being in the best interests of the shareholders. Walkling and Long (1984) relate managerial resistance to a number of factors, including the size of the bid premium, management compensation, and various financial characteristics of the firm. They found that managerial resistance bears no relationship to the size of the bid premium

(i.e. managerial resistance does not affect the size of the premium), but that is was conditioned on the percentage of shares owned by the bidder and the potential wealth change to officers and directors. The potential wealth gain to the shareholders was substantially lower in contested offers. They conclude that their results "provide substantial evidence that the decision to contest a tender offer is conditioned on personal wealth changes" of the firm's management. In a follow-up study, Walkling (1985) confirms that "target management opposition was a decisive deterrent to offer success."

Yen (1987) makes certain improvements to the methodologies used by Dodd (1980) and Bradley (1980) (cited previously) when he compares accepted merger proposals to rejected proposals. His findings show that the wealth gain of the accepted group was 38.92% compared to the 11.34% gain for the rejected group. Within the rejected group, the would-be gain of 50.38% was more than three times as large as the 15.59% actual gain. He too concludes that "managerial resistance may not be in the best interests of shareholders."

Fishman (1989), however, speculates that under certain conditions rejection may be in the best interests of the shareholders. If the medium of exchange in the acquisition is securities rather than cash, rejection by management may be a signal of management's belief that the securities may drop in value in the post merger period. This could be consistent with

the studies that report a drop in the market value of the bidder's shares after a rejection by the target firm's management.

Rejection by management may also be a ploy to extract a higher bid from the current bidder or to entice other bidders to enter the fray. Bradley, Desai and Kim (1988) report higher average stock price revaluations for targets involved in multiple-bidder contests. Under such circumstances, a rejection by management of the initial bid could be beneficial to the shareholders of the target firm.

A number of discriminatory "value-reducing defensive strategies" are examined by Berkovitch and Khanna (1990). They show that crown jewel sales, lock-up options, litigation, purchase of undesirable assets and direct conditional cash payments can make a target unattractive to a particular bidder, but could elicit a higher bid from a new bidder. They also show that in many cases, the mere threat of such defensive tactics enables a target manager to get a higher offer from a bidder. The evidence they present, however, is meager, consisting of seven "randomly collected cases from the Wall Street Journal and from Dann and DeAngelo (1988)."

C. Motivations for Mergers and Takeovers

If there are little or no wealth gains to the bidding firm, why does management engage in acquisitions? While it may be true

that there are definite wealth benefits to the target firm's shareholders, the general consensus of the studies cited above seems to imply that shareholders of the acquiring firm gain either minimal or no wealth during a merger. Furthermore, management may resist a merger proposal even when it is in the best interests of the target firm's shareholders, and such action is usually sufficient to foil the takeover attempt.

The synergy theory posits that a successful acquisition allows the acquirer to redeploy the combined assets of the two firms toward higher-valued uses or to exploit a change in economic conditions. Synergy may result from more efficient use of management, economies of scale, improved production techniques, the combination of complementary resources, the redeployment of assets to more profitable use, the exploitation of market power, or any number of value-creating mechanisms. The acquiring firm may also be seeking to exploit a change in supply and/or demand or technological innovations.

Malatesta (1983) considered three possible hypotheses concerning mergers and tested some of their implications. He identifies the three hypotheses as the value-maximizing or investment hypothesis, the size-maximizing hypothesis and the improved-management hypothesis. Briefly, under the investment hypothesis both the acquiring and target firms are assumed to be value-maximizers. Hence the acquiring firm will not stage a tender offer if the net present value of the target (the

investment) is negative. The improved-management hypothesis retains the assumption that acquirers maximize value, but assumes that target firms are controlled by inefficient management. The size-maximizing hypothesis assumes that target firms act to maximize value, while acquiring firms act to maximize size. Under this hypothesis, acquiring firms may engage in mergers which have negative net present values.

An alternative explanation is suggested by Roll (1986). A hypothesis that he labels "The Hubris Hypothesis of Corporate Takeovers" predicts that there are no gains to the bidding firm because the bidder managers inadvertently overpay for target firms. Managers tend to overestimate their ability to manage the target firm due to hubris and, therefore, overstate the benefits of corporate mergers. Hence, a takeover announcement will precipitate a decline in the bidder firm's shares.

Asquith, Bruner and Mullins (1983) suggest that the expected benefits of the acquisition activity is capitalized in the bidding firm's shares at the time that an acquisition program is announced. Consequently, the announcement of an actual bid may have no effect on the bidder's shares, or the effect may be negative if the market's measure of the offer represents a downward-biased adjustment.

Stoughton (1988) shows that positive premiums can exist even when there are no synergies resulting from the merger. The

premium can be attributed to the social benefits of the merger, such as the reduction in portfolio risk and the decline in information asymmetry.

Other studies have sought to relate the question of why firms initiate tender offers to financial characteristics of the target firm. Kaplan (1989) looked at the tax benefits and concluded that the large interest deductions and increased depreciation charges are an important source of the wealth gains. Similarly, Haw, Pastena and Lilian (1987) examined the relationship between the size of the merger premium and the existence of tax loss carryforwards. Other researchers have examined various aspects of pension plans and pension funds as they relate to merger premiums.

Lehn and Poulsen (1989) suggest four possible sources of the wealth gain to target shareholders: (1) tax savings; (2) redistributions from bondholders; (3) asymmetric information; and (4) mitigation of agency problems. They conclude that undistributed cash flow can be a significant determinant of a firm's decision to go private.

Hansen (1987) focused on the choice of the exchange medium in mergers and acquisitions and established the conditions that would induce management to prefer stock versus cash.

Walkling and Edmister (1985) theorized that the size of the merger premium should be a positive function of the acquisition

related benefits and a negative function of the bargaining power of the bidder. They constructed a model with various financial proxies for type of combination, target valuation and bargaining strength and concluded that (1) low levels of debt, (2) a high percentage of shares already controlled by the offering company and/or its ability to acquire enough shares to implement potential changes and (3) the existence of an opposing bid at the time of the offer are significant determinants (positively related) of merger premiums.

The conflict-of-interest hypothesis has also been advanced to explain why managers will knowingly overpay for target firms. Greater job security, nonmonetary perquisites or nonpecuniary benefits (such as a greater number of subordinates) may be driving the bidding process even at the expense of stock prices and shareholder wealth. Seyhun (1990) attempts to test the conflict-of-interest hypothesis by examining manager's personal stock transactions (insider trading) in the period around a takeover announcement. His results, however, do not support the hypothesis. Only small and insignificant increases in trading activity by top managers was noted in the period around a takeover announcement.

Shleifer and Vishny (1990) argue that bidding managers will consider both their personal benefits from the investment and the consequences for the market value of the firm. Investments that contribute to the long term growth of the firm, enable managers

to diversify their risk on human capital or improve their job security are particularly attractive. They conclude, however, that managerial objectives drive acquisitions. Acquisitions that were undertaken with growth or diversification (viewed as management objectives) did not generally result in increases in shareholder wealth.

Acquisitions which reduce risk may also be viewed as beneficial to management. Lewellen, Loderer, and Rosenfeld (1989) show, however, that the majority of the acquisitions in the period 1963 through 1984 actually increased total and residual stock return risk, results not compatible with the conflict-of interest hypothesis.

An interesting hypothesis to explain the magnitude of bid premia is proposed by Robinson and Shane (1990). They argue that mergers accounted for as poolings provide the acquiring firm with certain economic benefits not available to mergers accounted for as purchases. Consequently, we should observe higher bid premia under the former accounting method. An examination of 95 stock for stock mergers generally supports their hypothesis.

This section of the paper has examined the factors that motivate the management of bidding firms to engage in mergers and takeovers. The question of shareholder wealth gains has also been addressed. The next section builds on the results reported above and develops a theory of management buyouts. Four testable hypothesis are proposed.

III. THE THEORY OF MANAGEMENT BUYOUTS

While the studies cited in the prior section attempt to explain why firms engage in takeovers and how the merger premium is determined, they do not address the issues of management motivations and management/shareholder conflict and their affect on the merger premium. This section examines this conflict in an effort to establish the factors which motivate management during a management buyout.

Jensen and Meckling (1976) view the firm as an arena of conflict. Since shareholders themselves do not manage the firm, they must engage professional managers to act on their behalf. These managers are agents of the shareholders and owe a fiduciary responsibility to their principals, the shareholders. This relationship often results in a conflict since each party is seeking to maximize its own wealth, and the best interests of the managers may differ from the best interests of the shareholders.

In an effort to resolve the conflict, managers and shareholders will enter into various contractual arrangements. For example, employment contracts can be structured to align the objectives of management and shareholders. Managers will engage outside auditors in an effort to assure shareholders that they are acting in their best interest.

Walkling and Long (1984) contend that the agency conflict is particularly severe in the merger arena, "since the best interest

of the principal (target firm shareholders) and agent (target firm managers) are often in conflict." In particular, they examine the reactions of target management to an outside tender offer. In order to predict management's reaction, they resort to two hypotheses: the shareholder welfare hypothesis and the management welfare hypothesis. In their view, the shareholder welfare hypothesis asserts that managers should be receptive to a merger or takeover proposal since a takeover generally results in wealth gains to the shareholders of the acquired firm. On the other hand, since takeovers are generally not in the best interest of the target firm's management, the management welfare hypothesis would predict that management should resist a takeover. Their empirical results, that managers of target firms generally resist outside takeover attempts, support the management welfare hypothesis. They also show that resistance by the target firm's management is often sufficient to foil a takeover attempt.

This paper examines the conflict which arises during a management buyout. The management/shareholder conflict implicit in MBO's is probably of greater severity than at any other time. During a buyout shareholders desire to obtain the highest price for their shares. Yet, the agents of the shareholder, management, who should be bargaining for the highest possible price, are actually the buyers of the stock, and their objective is to pay the lowest possible price.

Here too, the shareholder welfare hypothesis and the management welfare hypothesis can be used to predict the actions of management. The shareholder welfare hypothesis will, of course, predict that management will act in the best interest of the shareholders. The management welfare hypothesis predicts that management will place its interest before the best interests of its shareholders.

Two variables, the size of the bid premium and the size and direction of the accounting accruals, will be used to test the two welfare hypotheses. Two additional variables, managements' compensation and the percentage of stock they own in the firm, will be used to test two sub-hypothesis: the "defensive tactic" hypothesis and the "feasibility" hypothesis.

A. The Shareholder/Management Conflict

As noted above, the shareholder/management conflict is particularly severe during a management buyout. However, the bid premium can be viewed as the "settling up" or resolution of this conflict, since the size of the bid premium indicates clearly whose best interest prevailed. Similarly, the size and direction of the discretionary accruals can also be viewed as the "settling-up" of the shareholder/management conflict. Each of these factors will be discussed individually below.

1. The Bid Premium

While it is surely true, as the prior section has shown,

that the value of the target firm, its level of leverage and the existence of opposing bids should be significant factors in establishing the bid premium, it can be argued that the identity of the bidder, whether it be management or a third party, should also affect the bid premium. For example, if a third party bidder believes that management will resist the takeover attempt, they may be inclined to offer a larger premium in order to entice the shareholders and overcome management resistance.

Walkling and Edmister (1985) did not examine this issue in their study of the determinants of merger premiums, nor is there any discussion of this question in the merger and acquisition literature. Huang and Walkling (1987), however, do document differences between market premiums associated with mergers versus those associated with tender offers.

Therefore, there is no a priori reason to suggest that the size of the merger premium offered in a management buyout should be larger, smaller or equal to the premiums offered in a third party tender. However, arguments can be offered in support of all three possibilities.

If the true underlying economic value of the target firm is determinable, then the identity of the bidder should not impact on the size of the premium. All bidders, management or third parties, will arrive at identical values and will make similar

offers. Such an argument, however, flies in the face of reality. We often observe competing bids with great difference in their dollar value, often leading to bidding wars where the bid premium rises with each attack and counterattack. Obviously, the protagonists in the battle have differing views as to the value of the target firm.

On the other hand, it may be that the true economic value of the target firm is determinable, but the bidding firms will bid less than the market value in order to profit from the merger. Such action would be appropriate only for a third party bidder since it owes no fiduciary duty to the shareholders of the target firm. In the case of a management buyout, however, we would expect the bid to approximate the true value of the firm. Such reasoning leads to the conclusion that larger merger premiums should be observed in management buyouts as opposed to third party tenders. Furthermore, since management is privy to inside information and has knowledge of the firm's hidden assets, it may be in a better position to determine the true economic value of the firm. And since management has decided to make a tender offer for the firm, its premium will probably exceed the premium that would be offered by a third party who does not have knowledge of the hidden assets.

Ignorance of the true economic value of the firm could result in the opposite happening. Third parties without access to inside information may overvalue the target firm and offer

premiums in excess of those that would be offered by bidders (management) who do have access to inside information.

Since the literature is silent on this matter, and the various arguments presented above do not lead to a definitive conclusion, use can be made of the two welfare hypothesis to infer two alternative implications. The management welfare hypothesis would predict that since management has access to better knowledge as to the true value of the firm, management would underbid in an effort to "steal" the firm from the shareholders (hypothesis H1). If this hypothesis is true, shareholders would be well advised to be wary of management takeover attempts and should not tender their shares at the initial bid. Furthermore, third parties should not hesitate to engage in a bidding contest with management since they can safely assume that management has entered an intentionally low bid.

The shareholder welfare hypothesis would predict that management would seek to establish the fair value of the firm and bid accordingly (hypothesis H0). Under this hypothesis, shareholders should not hesitate to accept management's initial bid, and third parties should consider carefully the implications of entering into a bidding contest with management.

The above discussion leads to the following two hypotheses:

H1: The initial bid premiums offered by management in a management buyout are less than the initial bid premiums offered by a third party bidder.

H0: There is no difference in the magnitude of the bid premiums offered by management in a management buyout compared to a third party tender offer.

The question whether the size of the premium is influenced by the identity of the bidder is quite significant. A number of studies have examined bid premiums, but none have considered the identity of the bidder as a relevant factor. Walkling and Edmister's (1985) model, for example, explains only 37% of the variability in merger premiums, indicating that significant variables have been omitted. Including the type of takeover, whether a MBO or TPTO, could improve the explanatory power of their model.

The literature which attempts to predict merger and takeover targets could also benefit from a more refined categorization of takeover targets. The studies of Maupin, Bidwell and Ortegren (1984), Dietrich and Sorenson (1984) and Palepu (1986), explored the possibility of predicting merger/takeover targets through the construction of statistical models based on publicly available financial information. While, in general, the capital market studies have found significant shifts in shareholder wealth around the date of a merger/takeover announcement, the attempts to predict merger/takeover target firms (and thereby take advantage of those wealth transfers) have met with mixed results.

The earlier prediction studies commonly selected a large number of variables and through brute empiricism reduced the list

to a relative few. Stevens (1973), for example, selected twenty ratios and reduced them to six factors through factor analysis. Maupin, Bidwell and Ortegren (1984) started with twenty-five variables and eventually ended up with five.

The variable selection process in both studies was rather crude and lacking in theoretical underpinning. Stevens (1973) cites "data availability, existing empirical studies in the area and financial characteristics that were believed to be important in merger decisions" as reasons for choosing his original list of variables. Maupin, Bidwell and Ortegren (1984) cite their "telephone survey and a review of the literature."

On the other hand, Palepu (1986) attempted to develop a theoretical basis for the ratios he selected. The selection was made "on the basis of six hypotheses, frequently suggested in the academic and/or popular financial literature, on the types of firms that are likely to become acquisition targets."

It is interesting to note that while Stevens (1973) and Maupin, Bidwell and Ortegren (1984) report that their models have an impressive ability to predict acquisition targets six to twelve months before the takeover announcement, Palepu (1986) reports that although some of his variables are statistically significant, the model as a whole is a poor predictor of takeover targets.

This paper argues that the absence of a merger/takeover

theory is responsible for the contradictory results. When formulating their models, researchers had to resort to ad hoc procedures to choose their variables. As a result, their models are probably misspecified. The arguments presented above, that management buyouts differ significantly from third party tender offers, could help explain the contradictory results and possibly formulate better models.

2. Accounting Choice

As noted earlier, management buyouts are a prime area for management/shareholder conflict. Management's potential for a breach of its fiduciary responsibilities are especially great. Management desires to pay the lowest possible price for the outstanding shares while the shareholders desire the highest possible price for their shares. Deangelo, DeAngelo and Rice (1984) label such "going-private" transactions "minority freezeouts" and point out the absence of arms-length negotiations between management as purchaser of the public stock interest and management as agent for the selling public shareholders. DeAngelo (1986) notes that even the engagement of an independent investment banker to assign a "fair value" to the outstanding shares provides little relief, since their assessment is usually based on financial data which in turn is easily subject to management manipulation. Management may either withhold significant positive inside information or it may take action to understate reported earnings. In either case, the effect will be

to reduce, or at least not increase, the price paid for the outstanding shares.

Stein (1987) cites a number of examples of lower earnings forecasts by management immediately prior to an LBO. He claims that the lower forecasts and their timing were designed to "willfully deceive the market about the true value" of the firm.

Management manipulation of reported income is not, however, a well documented empirical fact. Although it would seem that management contemplating a buyout would have incentives to understate reported earnings, there are actually many factors at play which would forestall such action. Public shareholders recognize that managers who propose buyouts have incentives to understate earnings, and they will take action to both prevent understatements and discover the understatement if it occurs. Managers will, therefore, have incentives to conceal any deliberate understatement of income. Consequently, managers will choose those income reducing techniques whose use is least obvious to outsiders.

One of the techniques available to management is to choose an accounting method which results in lower net income. Studies of accounting method choice have shown mixed results in attempts to relate accounting method choice to firm size, compensation scheme and capital structure. Healy (1985), for example, reports significant results when he relates manager's accrual policies to income-reporting incentives of their bonus contracts. DeAngelo

(1986) adopted Healy's methodology in a study of management buyouts but found no evidence that managers systematically understate earnings before a management buyout. However, when she focuses on subgroups partitioned by degree of managerial discretion (i.e. stock ownership) the results improved but were still not significant at the .05 level or better.

Both Healy's (1985) and DeAngelo's (1986) work is subject to several criticisms. In a review of Healy's work, Kaplan (1985) points out that Healy did not adequately develop a measure of expected accruals and, hence, his measure of discretionary accruals is flawed. DeAngelo (1986) remedies the situation somewhat by examining the annual net change in total accruals, a procedure she describes as analogous to that used in event studies wherein an abnormal return is calculated by comparing a current period factor to an average or benchmark for that factor. DeAngelo, however, fails to determine the level of discretionary accruals in the non-target population as a test of the reported results. Furthermore, her sample is drawn from the period 1973 - 1982 and probably does not include a significant number of the mega-mergers and leveraged buyout deals characteristic of the mid-1980s. Her sample is also heavily biased toward "minority freezeouts" where management holds an overwhelming majority of the outstanding shares and exercises full ownership discretion. In such instances, management would not find it necessary to engage in any pre-tender income manipulation.

On the other hand, managers who report low earnings may invite takeovers by outsiders. Furthermore, if management compensation is based on reported income, there may be further incentives not to report low earnings.

The arguments presented do not lead to a definitive conclusion. However, if we partition target companies into MBO targets and TPTO targets and apply the shareholder welfare and management welfare hypotheses, it is possible to predict managements actions. If the management welfare hypothesis is operational then management should be using higher levels of negative discretionary accruals (hypothesis H1 below) to report lower net income. But if the shareholder welfare hypothesis is operational, we should not witness any difference in the size or direction of discretionary accruals between the two type of target firms.

The above discussion leads to the following hypotheses:

H1: Management buyout targets are characterized by higher levels of negative discretionary accruals than third party targets.

H0: There is no significant difference in the magnitude of discretionary accruals between firms that are the targets of MBO's or TPTO's.

The above two factors, the bid premium and the discretionary accruals, were shown to be factors in the "settling-up" of the shareholder/management conflict. An analysis of how these two factors differ for MBO firms versus TPTO firms, will reveal

management's intention in staging a management buyout.

The balance of this section examines the factors which motivate management to stage a management buyout. Two alternatives courses of action by management are considered: a preemptive defensive tactic and a feasibility approach. The first assumes that management is motivated by a desire to protect its position (compensation and job) at the firm, particularly when the firm is owner controlled. The feasibility approach assumes that management will stage a buyout when conditions are favorable, i.e. when management owns a high percentage of the firms stock, and when management is highly compensated and has the financial resources to stage the buyout.

The following two subsections discuss the defensive and feasibility hypotheses. Two factors, management cash compensation and stock ownership by management, are proposed as variables to test the hypotheses.

B. Feasibility Test or Defensive Tactic

The events culminating in a management buyout may represent two scenarios. In one, management is quietly assessing the factors which will enable it to stage a successful buyout. Is the firm too big or too small? Is adequate financing obtainable? Is there sufficient shareholder support to effectuate the buyout? The buyout will be attempted only if management is satisfied that conditions are favorable. This scenario will be referred to as

management's feasibility test.

In the other scenario, management views itself as being in a defensive posture prior to a buyout. If management owns few shares in the firm, it may view its position as being in jeopardy, particularly if its compensation package is overly generous. In this scenario, the more threatened management feels, the greater the likelihood that it will stage a management buyout. This scenario will be referred to as the defensive tactic approach.

The two factors discussed below, compensation and stock ownership, are hypothesized to be able to distinguish between the feasibility and defensive tactic scenarios.

1. Management Compensation

Since managers and shareholders view the firm with divergent horizons, the best interests of management may differ from the best interest of shareholders. Management compensation schemes, however, can be used to align these divergent interest. Healy (1985) reports significant results when he relates managers' accrual policies to income reporting incentives of their bonus contracts.

Corporate takeover decisions can be viewed as one area where the interests of management and shareholders will significantly diverge (Mikkelson and Ruback [1985]). Managers whose

compensation is based on short term profits will be motivated to make acquisitions which increase short term profits regardless of their net present values. Management compensation linked to long term performance will influence management to make decisions consistent with the firm's long term earnings. Thranian, Travlos and Waegelein (1987) have shown that bidding firm's with long term performance plans experience higher abnormal stock returns relative to bidding firms without such plans.

Walkling and Long (1984) state this concept explicitly; "managements (especially in merger and tender offer situations) place their fiduciary responsibilities second to their own welfare." Their study of managements' reaction to third party tender offers shows that management opposed a tender offer whenever its compensation package was threatened. In a follow-up study, Walkling (1985) reports that opposition by management to a tender offer (in an effort to assure a level of compensation) is generally an effective defense and a deterrent to tender offer success. In effect, management will engage in protective maneuvers whenever their compensation package is threatened.

The managerial welfare hypothesis (also referred to as the "self serving management hypothesis" by Benston [1985]) and the shareholder welfare hypothesis imply a similar conflict between management and shareholders. The management welfare hypothesis states that, in general, when management is faced with a decision

it will place its welfare ahead of the shareholders' welfare. Hence, if management feels that its compensation package is threatened, it may take action to protect itself.

The time period examined by this study (1982 through 1988) was characterized by an extremely high level of merger activity. No industry was exempt, and almost no firm of any size could feel secure in avoiding a hostile tender offer. Management of many firms, even when not faced with a hostile bidder, initiated various protective measures to secure their hold on the firm. Poison pills, announcements of stock repurchase plans, lobbying for the enactment of state anti-takeover statutes and management buyouts were some of the more popular devices employed to discourage unfriendly takeovers. In most instances, these efforts preceded any hints of a takeover attempt. Therefore, it is not illogical to assume that managements with higher levels of compensation would feel the most threatened by takeovers and would be more inclined to opt for preemptive defensive measures.

On the other hand, the shareholder welfare hypothesis would argue that, notwithstanding the compensation scheme, management will always act in the best interest of the shareholders. Hence, the level of management's compensation should not be related to the decision to initiate a management buyout.

The above discussion leads to the following two hypotheses:

- H1: Management buyout targets are characterized by higher levels of management compensation than third party buyouts.

H0: There is no significant difference in the magnitude of cash compensation received by managers of MBO firms relative to managers of TPTO firms.

Although there exists no evidence in the literature, it might be interesting to speculate that managers with higher levels of income would be more inclined to stage a management buyout since they have greater financial resources than managers with lower levels of compensation. Such logic would be in accordance with the feasibility test scenario outlined above and would add further support to the H1 hypothesis.

2. Stock Ownership

A study by Dhaliwal, Salamon and Smith (1982) concluded that management controlled firms are more likely than owner controlled firms to adopt accounting methods which increase reported earnings. They argue that by doing so management seeks to keep current shareholders satisfied and unwilling to support takeover attempts by outside groups. A firm was defined as management controlled if no one party controlled a block of stock greater than five percent. They found, however, that as the percentage of the firm's ownership controlled by management increases, management will adopt the exact opposite attitude and will be more inclined to support a tender offer. This about face is entirely logical and consistent with managements' wealth maximization objectives. Mikkelson and Ruback (1985) and others have shown that tender offers generate significant positive

abnormal returns for the shareholders of the target firm. Therefore, management support of a third party buyout will increase directly with increases in management ownership of the firm's securities. Managers with lower levels of stock ownership will be more inclined to resist takeover attempts since they stand to gain little from a takeover.

Many studies support this view. Baron (1983), for example, asserts that the desire to retain control (by target management) is inversely related to the proportion of shares owned by management. Walkling and Long's (1984) research shows that "officers and directors of contested offers hold significantly smaller ownership positions in their corporations than do their counterparts in uncontested offers." Larcker (1983) clearly suggests that managers who own less stock in their company are more likely to make bids.

Managers with a smaller percentage ownership in their firm would be more inclined to resist an outside tender offer for yet another reason - the protection of their job. In fact, a Business Week survey reported by Walkling and Long (1984) shows that a high percentage of executives who are let go leave during takeovers, mergers and acquisitions. Ang and Chua (1981) also suggest that managers of acquired firms lose their jobs as a result of the merger. Walkling and Long (1984) report that while 81 percent of managers retain their position in uncontested offers, only 43 percent retain their positions in contested

tender offers, and that contested offers are characterized by lower levels of stock ownership by management.

Hence, managers with smaller percentage ownerships in their firm would feel threatened by outside tenders and would be more inclined to adopt strategies designed to protect their jobs, while owner controlled firms would have no need to stage a buyout since they already own the firm.

As the previous section pointed out, the time period under study was characterized by large numbers of hostile tender offers and much preemptive activity by management. In such an environment, managers with low levels of ownership might feel threatened enough to stage a management buyout.

On the other hand, managers with higher levels of ownership could more easily stage a management buyout since they already own a significant stake in the firm and need not fear shareholder resistance. They also could more easily raise the necessary financing using their existing stake as collateral.

Maupin, Bidwell and Ortegren's (1984) study of merger and acquisition targets seems to support the argument that managers with higher levels of ownership in their firm would be more inclined to stage a management buyout. In comparing "quoted" to "ex-quoted" firms, they found that ownership concentration was a significant factor in differentiating between these two groups, even though their sample of target firms did not distinguish

between management buyouts and third party buyouts. Hence, their results would seem to imply that both types of buyout targets are characterized by higher levels of stock ownership than non-target firms.

However, a careful examination of their data discloses that the managements of the "ex-quoted" firms already owned an average of fifty-six percent of their firm's outstanding shares. In essence, their sample of "ex-quoted" firms seems to be dominated, as is DeAngelo's (1986) sample, by "minority freezeouts." And in fact, in explanation of their findings they argue "that the greater the percentage of shares held by management and the board of directors, the more easily a management buyout (emphasis added) can be accomplished." Although they ostensibly grouped management buyouts and third party buyouts into one group, their logic is based solely on the motivations behind a management buyout. It is very hard to disagree with their findings that firms engaged in "minority freezeouts" are characterized by higher levels of ownership concentration than non-acquired firms. The concept is axiomatic and their results, therefore, are trivial and merely definitional.

The above discussion leads to the following hypotheses:

- H1: Management buyout targets are characterized by lower levels of stock ownership by management than are targets of third party tender offers.
- H0: There is no significant difference in the stock holding by management in management buyout targets versus third party targets.

The above argument assumes that management decision to stage a buyout is a two step approach. Fearful that their compensation may be in jeopardy, and realizing that their minimal holding of the firm's shares can not offer serious protection from a third-party takeover attempt, management decides to stage a buyout. Once the decision to initiate a management buyout is made, the managers will be motivated to acquire the firm at the lowest possible price, even to the detriment of the firm's shareholders. Accordingly, we can expect management to take steps to depress the price of the stock, and then to offer a bid premium which is lower than what the shareholders would normally receive from a third-party bidder. This logic is consistent with the defensive tactic scenario previously outlined.

A slightly different train of logic, however, could yield a variant result. Rather than viewing management which has a low level of stock ownership as protective of its compensation, we can view the level of stock ownership and compensation as means toward a successful buyout. Here, however, the two-step process is reversed. Managers will first assess the probability of staging a successful buyout. Ownership by management of a large amount of the firm's shares will increase the probability of a successful buyout. And managers who are highly compensated will have the financial resources which are also necessary to increase the probability of a successful management led buyout. Once management has made the decision to stage a buyout, they will

take action to depress the price of the stock and will offer a lower bid for the firm's stock. This line of reasoning is consistent with the feasibility test scenario previously outlined.

The two scenarios spelled out above differ in only one way. The first scenario views the management buyout as a defensive measure for managers who own low levels of the firm's stock and are fearful of their position and compensation. This scenario predicts that MBO's will be characterized by low levels of stock ownership by the firm's managers, and is consistent with the H1 hypothesis.

The second scenario views stock ownership and compensation as factor which managers consider when assessing the feasibility of a successful takeover. Both high levels of ownership and high levels of compensation increase the probability of a successful buyout. Hence, this scenario predicts that MBO targets will be characterized by managers with high levels of ownership of the firm's shares. This line of reasoning is consistent with the H0 hypothesis.

C. Summary

In summary, this section has argued that managers who stage a leveraged buyout tend to offer a lower bid premium than the bid premium offered by third party bidders. Furthermore, such managers will be inclined to choose accounting procedures (via discretionary accruals) which reduce net income in the period

prior to the tender offer announcement, in an effort to depress the price of the stock and thereby acquire the firm at a lower cost.

Two alternative approaches to stock ownership by management and management compensation have also been presented. The "defensive tactic" approach suggests that MBO targets will be characterized by high levels of compensation but low levels of stock ownership. These two factors when combined will place management in a defensive posture and eager to protect its position.

The "feasibility" approach suggests that MBO targets will be characterized by both high levels of compensation and high levels of stock ownership, since this combination facilitates a successful management buyout.

The next section will describe the sample selection procedure and the research design which will be used to identify the variables which are theorized to proxy for the factors described above. Secondly, the research design will present procedures which will discriminate among the alternative hypotheses. The purpose of which will be to determine what factors motivate managers to stage a leveraged buyout. And to determine if managers who stage a management buyout are acting in the best interest of their constituent shareholders.

IV. RESEARCH DESIGN

This section of the paper discusses the development and testing of a model which is designed to determine if management buyout targets and third-party targets actually differ as predicted by the hypotheses developed in the previous section.

Part one of this section describes the sample selection and data collection process. Part two describes the models used to determine if management buyout firms actually differ from third-party buyout firms.

A. Sample Selection and Screening

Two distinct samples, one of Management Buyout firms (MBO) and one of Third Party Tender Offer firms (TPTO), are necessary to test the hypotheses promulgated in the previous section. The types of firms included in each of the samples, and the purpose of each sample and its relationship to the hypotheses is detailed in this and the following sub-sections.

The years 1982 to 1988 were selected as the test period, since it was a time of almost frantic merger activity. Additionally, choosing the most recent years assures that any conclusions drawn from the results of this study are still current and relevant.

The first step in the sample selection process was an examination of volume one of The Wall Street Journal (WSJ) Index

for each of the sample years. This volume indexes all the "general news" under various categories. All firms referenced as targets of a takeover (of any sort) under the headings "going private" and/or "mergers and acquisitions" were potential candidates for the study.

The second volume of the Index, "corporate news," was then reviewed for each sample candidate identified by the previous step. The first mention of the company as a target of a definitive tender offer was noted and the following information extracted (contemplated takeovers, rumors and speculation were not considered): the identity of the target and the bidder, the date the offer was first reported in the WSJ, and the dollar amount of the tender offer (per share and in total). If any information was not available in the Index, the Journal article itself was examined. In all but four instances the required data was obtained. Abdel-Khalik (1984) concludes that the Wall Street Journal is reliable in its reporting of earnings and dividends announcements. Accordingly, it seems safe to assume that reports of tender offers would appear with equal reliability.

The following criteria for inclusion in either the MBO or TPTO samples were employed. Cash tender offers were automatically selected. Tenders with payments that included combinations of cash, stock or bonds were valued at the estimated value of the offer as reported by the WSJ. If a range of values was reported, the median of the range was used.

Only the first tender offer in any one twelve-month period was included. For example, the 1988 edition of the Index, under a reference dated March 23, 1988, identified Lucky Stores Inc. as the target of a third party tender offer. Consequently, the 1987 edition of the Index was reviewed to determine if the company had been the target of any tender offer since March 1987. In fact, it had not been, and it was therefore included in the sample. However, since Lucky Stores Inc. was a target of an unsuccessful third party tender on September 25, 1986, more than one year before the March 1988 tender offer, it appears twice in the TPTO sample, but obviously for different time frames. For the same reason, Hospital Corp. of America appears both in the MBO sample (September 16, 1988) and the TPTO sample (April 10, 1987).

The intent of this exclusionary rule was to eliminate tender offers where the motivations of the bidder, whether management or a third party, were not clear. In a majority of cases, once a firm was "put into play" other bidders appeared on the scene, often with higher bids. In most cases management adopted a defensive posture, either initiating legal action, announcing a restructuring or a stock buy back program, courting a "white knight," or countering with a management buyout proposal. All of these proposals were viewed as "knee jerk" reactions and were eliminated, and only the first offer was included in the samples.

Firms whose stock price was not reported in the WSJ or unavailable through the Dow Jones Tradeline on-line retrieval

service were excluded. This rule eliminated all non-publicly held firms and subsidiaries of other firms.

Also eliminated from the sample were all firms where management (or any other group) already owned a controlling interest in the firm and was in a position to unilaterally effectuate a "minority freezeout," sometimes referred to as a "mop-up" or "cleanup" tender offer. As discussed previously, Maupin, Bidwell and Ortegren (1984) concluded that once management owns a "controlling" interest in the firm, increases in the percentage ownership by management will be positively associated with an increased likelihood of a management buyout. In their sample of buyout targets, the managers of the firms already owned an average of 56 percent of the firm's shares prior to the tender offer, therefore it is not surprising that they would be more inclined to stage a management buyout offer.

This paper, however, is concerned with those situations where management does not as yet own a controlling interest in the firm. The intent of the research is to determine if lower levels of management ownership will be associated with higher or lower probabilities of a management buyout. Therefore, all firms where management already owns 50 percent or more of the firm's stock were excluded from the sample since they represent a unique and uninteresting subsample.

Furthermore, Dodd and Ruback (1977) examined a sample of

such "clean-up" tender offers where the bidder already had over 50 percent of the target's outstanding shares before the offer. They found that although the shareholders of the target firm realized an abnormal return, it was not of the magnitude earned by shareholders in nonclean-up offers. This lends further credence to the argument that managers with high levels of ownership can effectuate a buyout with little resistance from the shareholders.

The executives and directors of the sample of target firms studied by Walkling and Long (1984) owned well under 20 percent of the outstanding shares of the firm prior to the tender offer. This was consistent with their conclusion that managers with a lower percentage ownership position would be more inclined to resist a tender offer.

Ownership positions of up to ten percent prior to the bid were not considered significant since in many, if not most, of the tender offers included in this study, the bidding firm gradually acquired up to ten percent of the target firm's outstanding stock before announcing a tender offer.

Tender offers for less than 15 percent of the outstanding shares of the target firm were also eliminated. Such tender offers were viewed as representing an "investment" rather than an offer for control, and as such probably would not elicit the actions by management discussed in the prior sections.

A preliminary review of the sample firms reveals that few of the target firms in the period 1982 through 1988 could be classified as targets of "minority freezeouts" or "clean-ups." The merger and acquisition activity of the mid-1980's was characterized by takeovers where neither management (in the case of a management buyout) nor the acquiring firm (in the case of a third party buyout) owned a significant percentage of the target company's shares prior to the announcement of the tender. In fact, in most cases the bidding firm owned less than five percent of the target's shares. Given, therefore, that neither management nor any other group owns a controlling interest in the firm's shares, the theory developed in the prior sections should hold true.

Also excluded from the sample were all financial institutions other than brokerage firms (i.e. commercial banks, savings and loans, etc.) and airlines. Altman (1968, 1977) has shown that these firms have significantly different financial characteristics from other firms, and the inclusion of such firms in a discriminant model will skew the results.

Although Palepu (1986) and Maupin, Bidwell and Ortegren (1984) studied only successful tenders (where the target firm was eventually acquired), this study includes successful as well as unsuccessful tender offers. Dodd and Ruback (1977) have shown that shareholders of target firms of both successful and unsuccessful tenders earn significant positive abnormal returns

from the tender offer. Furthermore, the theory developed in this paper does not distinguish between successful and unsuccessful tenders. Management's motivations prior to a management tender is the key factor of the theory and, as such, is not dependent on the eventual outcome of the tender offer.

The above screening procedures resulted in fifty-two MBO firms and 140 TPTO firms. Table I presents the frequency distribution of both the MBO and TPTO firms by tender offer year.

Firm specific data was then collected from a number of sources. The Compustat files were used to obtain financial data for the firms. Data on management compensation and stock ownership was obtained directly from the firms proxy statements. Proxy statements for the years 1984 to 1988 were examined at the New York regional office of the Securities and Exchange Commission (SEC). Proxy statements for years prior to 1984 were not available at the regional office of the SEC, and in those cases or in instances where the SEC files were missing, the proxy statements were examined at the Merrill Lynch Capital Markets Documents Library at the World Financial Center. In instances where the company did not issue a separate proxy statement, the 10K filing for the most recent fiscal period ending prior to the tender announcement date was examined to obtain the information on compensation and insider ownership. In all cases, the financial data, and the data on stock ownership and management compensation was for the fiscal year end immediately preceding

the date of the tender offer.

Appendix 1 presents copies of the relevant pages of the proxy statements of AFG Industries, Inc. (a MBO firm) showing the disclosures for insider stock ownership and insider compensation. Appendix 2 shows similar disclosures for Talley Industries (a TPTO firm). Both are typical of the information presented by the firms in the MBO and TPTO samples.

1. The Management Buyout (MBO) Sample

The target firms identified by reference to the WSJ Index were categorized as "management buyout" firms if any member of senior management was a participant in the tender offer. For example, an MBO would include those situations where any member of management or a management group was the sole bidder for the firm, or if any member of management was a partner or associated with a "raider," leveraged buyout firm or any sort of investor participating in the tender offer.

Table II lists the firms included in the management buyout sample. The date of the initial tender offer and the amount of the initial bid are also shown.

2. The Third Party Tender Offer (TPTO) Sample

Targets of third party tender offers were identified in a similar fashion. Offers for less than 15% of the outstanding shares and situations where the bidder already owned 50% or more

of the firm's stock were eliminated. Successful as well as unsuccessful third party tender offers are included in the sample. The logic behind this screening procedure is similar to that for the MBO sample, and ensures that the MBO and TPTO samples are similarly constructed.

Table III lists the firms included in the third party buyout sample. The date of the initial tender offer and the amount of the initial bid are also shown.

B. Hypotheses Testing

The hypotheses outlined in the preceding section, that management buyout targets may differ from third party buyouts in four specific ways, may be directly tested by examining the validity of equation (1):

$$\text{TARGET TYPE} = f (\text{PREMIUM}, \text{ACCRU}, \text{COMP}, \text{STOCK}, \text{ASSETS}) \quad (1)$$

where

TARGET TYPE is an indicator variable set equal to 1 if the firm was a target of a management buyout, and 0 if it was the target of a third-party tender offer,

PREMIUM is defined as the difference between the initial per share tender offer and the per share market value 14 days (2 months) prior to the announcement of the bid, divided by the per share price 14 days (2 months) prior to the announcement, adjusted for changes in the S&P index for the same time period,

ACCRU is a measure of discretionary accruals, and it is a proxy for management manipulation of accounting income. Six different definitions of ACCRU are tested,

COMP is the average CPI deflated compensation (salary plus bonus) of the firm's highest paid executives, as reported in the firm's proxy statement,

STOCK is the percentage of target shares owned by management and members of the board of directors as reported in the firm's proxy statement, and

ASSETS is the total gross assets as reported in the Compustat tapes and is used as a proxy for the size of the firm.

Each of the above variables is discussed in the following subsections.

1. Target Type

The dependent variable (TARGET TYPE) can be viewed as the probability that a particular firm will be the target of a management buyout versus a third-party tender offer, and it ranges (as a probability distribution should) from zero (absolute certainty of a third party buyout) to 1 or 100% (absolute certainty of a management buyout). Equation (1) can, therefore, be thought of as a discriminant function which classifies target firms into two groups (MBO and TPTO) and assigns probabilities to each firm for inclusion into those groups.

2. The Bid Premium

It should be noted that the bid premium examined in this paper is not calculated in the same manner as the "merger premium" referenced by the various papers previously noted in this study. This paper calculates a bid premium which is the

difference between the very first bid for the firm and a reference point two weeks (two months) previously. The various other studies have examined a merger premium which is calculated as the difference between the final bid price at which the merger/takeover was consummated and some prior reference point in the price of the stock. The only exception is the premium calculated by Robinson and Shane (1990). One of their models uses a bid premium calculated as the difference in the price of the target firm's shares on the WSJ announcement date and 40 trading days before the announcement date.

Since this paper seeks to determine if management is underbidding for the firm, it is the initial bid which must be considered. Fishman (1988) shows that in multiple-bidder contests "it is important to distinguish between first and later bidders." Any bids subsequent to the initial bid by either management or a third party will be tainted by new motivating factors and can not be used to answer the questions posed by this study.

Haw, Pastena and Lilian (1990), in their study of the effect of ownership structure on merger premiums, calculated a "market premium" rather than a bid premium. Because they were searching for manifestations of nonpublic information, they assumed the first known public disclosure date to be the first date that a rumor surfaced, a purchase of a large block of stock or actual offers and agreements. Even though they used definitive and

hypothetical disclosure dates, they still found significant "run-ups" in the pre-disclosure period.

The 14 day lag in the calculation of the bid premium was introduced to avoid any bias that might be caused by leakage of information about the impending offer. Walking and Edmister (1985) used the same lag in their calculation of tender offer premiums.

In accordance with the results reported by Haw, Pastena and Lilian (1990), this study also examined a two month lag in the calculation of the bid premium in an effort to determine if information regarding the pending tender offer started to leak as early as two months before the announcement date. This premium is consistent with the 40 trading day premium used by Robinson and Shane (1990). Kaplan (1989) also uses a two month time frame for his calculation of the bid premium.

A negative coefficient is expected for the PREMIUM variable since the theory predicts that insiders will underbid for the firm. Hence, increases in PREMIUM are associated with a decrease in the probability of a management buyout.

3. Accruals

Many studies have sought to determine if management actively manipulates earnings when its compensation package is tied to earnings. Healy (1985) examined numerous compensation contracts

and found that they contained upper and lower bounds on the bonus that the manager could earn. He hypothesized that managers would attempt to reduce earnings when they exceeded the upper bound and would seek to increase earnings when they were above the lower bound. His tests were more powerful than previous studies which merely related earnings to compensation without regard to the details of the bonus contract.

In order to test his theories, Healy developed the notion of measuring discretionary accruals. He predicted that such accruals would be negative when earnings exceeded the upper bound of the bonus contract and would be positive when earnings were below the lower bound. His difficulty, however, was in measuring accruals. He finally defined accruals (ACC) as the difference between reported accounting earnings and cash flow from operations. He operationalized this definition as

$$ACC = -DEP + AR + INV - AP - TP$$

where:

DEP = depreciation

AR = change in accounts receivable

INV = change in inventory

AP = change in accounts payable

TP = change in taxes payable.

Kaplan (1985) criticized Healy's approach for his use of the absolute amount of accruals rather than some measure of

unexpected or "abnormal" accruals.

Liberty and Zimmerman (1986) also used an accrual test modeled on Healy (1985) in their study of reported earnings during union contract negotiations. They found no evidence of lower than expected earnings during contract negotiations. They did, however, test if the change in accounts receivable and the change in inventory balances can individually proxy for the accrual change. Here too they found no evidence of lower than expected earnings. Kaplan's (1985) comments would apply to this study too.

DeAngelo (1986) did develop a measure of unexpected accruals. She assumed that the prior period's accrual was the best measure of the current period's accrual, absent income manipulation. Therefore, any change in the year to year accruals can be viewed as a measure of income manipulation by management. A significant negative accrual can be interpreted as evidence of a systematic earnings understatement. Her unexpected accrual measure is defined as

$$ACC = NI_1 - CF_1 - (NI_0 - CF_0)$$

where

NI = net income

CF = cash flow.

In a later study (DeAngelo [1988], footnote 12) she states

that "the primary difference between net income and operating cash flows is probably the periodic depreciation charge." She does, however, test an alternative model of accruals, defined as the difference between net income and working capital. Her results are insensitive to the choice of models.

This paper tests six approximations of accounting accruals: (1) Healy's (1985) original model; (2) Healy's original model lagged one year; (3) DeAngelo's (1986) "unexpected" accrual model; (4) DeAngelo's (1988) working capital model; (5) the difference in the annual depreciation charge and (6) the difference between operating income before depreciation and net income before extraordinary items, a model suggested by DeAngelo (1986). The models will be referred to as HEALYX, HEALYY, DE1, DE2, DEP and IDIF. Appendix 3 presents the actual definition and the compustat definitions of each of these models.

A negative coefficient is expected for the ACCRU variable, indicating that the probability of a MBO is negatively related to increases in positive (income increasing) accruals. Negative (income decreasing) accruals will, therefore, signal a potential MBO. The choice of a particular model to proxy for accruals should not affect the sign of the coefficient unless the model is a poor proxy. Consequently, tests of the accrual models will be joint tests of the theory and the ability of the model to proxy for accruals.

4. Compensation

The variable COMP is a measure of the degree of influence exerted by management's compensation package on the decision to stage a management buyout. The total cash compensation, consisting of salaries plus bonus, was obtained from the proxy statement for the firm's highest paid officers. Since the sample covers the years 1982 to 1988, the compensation was deflated by the consumer price index for each of the years.

5. Stock ownership

The variable STOCK is used to determine the influence of stock ownership by management on its decision to stage a management buyout. The percentage of the firm's shares owned by all the firm's officers and directors as a group was obtained from the firm's proxy statement.

The maintained (H1) hypotheses predict that positive coefficients are expected for the variables signifying compensation and ownership. Since the theory posits that higher levels of compensation and higher levels of stock ownership are associated with management buyouts, higher levels of these two independent variables result in a higher probability of a management buyout, i.e. the dependent and independent variable move in the same direction, and, therefore, the sign expected on the coefficients of these two variables (COMP and STOCK) is positive.

Obviously, the null hypotheses will predict coefficients with the opposite sign or coefficients which are not significant.

6. Assets

The ASSET variable is introduced to eliminate any bias that could result from a significant difference in the average size of the firms in each of the two groups. Many accounting studies have shown size to be a significant variable when analyzing various groupings of publicly held firms. Total assets in the year of the announcement was used to proxy for the size of the firm.

7. Tax loss carryforwards

A number of studies referenced earlier have suggested that the existence of large tax loss carryforwards on the books of the target firm may make it attractive to a bidder who wishes to shelter its income. Accordingly, such a factor should be useful in discriminating between target and non-target firms. However, a tax loss carryforward factor should not be significant in discriminating between MBO and TPTO firms since both groups are targets and both could show significant tax loss carryforwards. Nevertheless, a TAX factor will also be examined to determine if it improves the discriminatory power of the model.

8. Industry

Table IV presents the distribution of the MBO and TPTO firms

by two digit SIC code. A visual scan of the table reveals no clustering of either sample by industry. Although many studies have included an industry factor as a discriminant variable, it did not appear necessary to do so in this study.

Equation (1) will be run utilizing multiple discriminant analysis (MDA). MDA attempts to statistically discriminate between two or more groups of cases based on discriminating variables that measure characteristics on which the groups are expected to differ, the PREMIUM, ACCRU, COMP, STOCK, and ASSET variables of equation (1).

MDA will produce discriminant functions in the form

$$Z_i = b_{i1}X_1 + b_{i2}X_2 + \dots + b_{ip}X_p \quad (2)$$

where Z (TARGET TYPE) is the score on the discriminant function, the b's are the weighting coefficients (discussed in the prior paragraph), and the X's are the standardized values of the discriminating variables (PREMIUM, ACCRU, COMP, STOCK, and ASSET) used in the analysis.

However, since the predicted probabilities from traditional linear regression models can violate the meaningful zero-one boundaries (i.e. it may result in probability scores of less than zero and greater than 100%), equation (1) will also be run in logit form. Logistic regression is an MDA technique that maps the predicted probabilities to a meaningful zero-one range. And,

whereas, the linear model causes heteroskedasticity, the logit function is asymptotic at the extremes where a small change in the independent variables is unlikely to materially affect the outcome.

The equation to be used in estimating the LOGIT model is

$$P (\text{TARGET TYPE}) = \frac{e^{-Bx}}{1 + e^{-Bx}} \quad (3)$$

where

X symbolizes the vector of independent variables as previously defined,

B symbolizes the vector of coefficients,

TARGET TYPE is (for estimation purposes) a binary variable set equal to 1 if the firm was a target of a management buyout, and 0 if it was the target of a third party buyout.

The results of the statistical tests and interpretations of the results is reported in the next section.

V. EMPIRICAL RESULTS

This section reports the results of a number of statistical procedures which test the hypothesis presented in section 3. These procedures are grouped into two categories - univariate tests and multivariate tests. Univariate t-tests were used to establish if the variables, individually, are related to the MBO - TPTO dichotomy, and if they should be included in the succeeding multivariate tests.

A number of different multivariate procedures were then utilized based on the univariate results, including; regression analysis, discriminant analysis and logistic regression. Multivariate procedures are superior to univariate procedures in that they test all the variables simultaneously, thereby giving consideration to the interactions among the variables. The results of all the tests are reported in this section.

A. Univariate Analysis

As an initial test of the hypotheses presented in the preceding section, univariate t-tests were performed to test for equality of means of the test variables between MBO and TPTO firms. Univariate tests examine each variable individually and ignore the interactions among the variables themselves. Nevertheless, they are useful to establish if there is preliminary validity to the hypotheses.

The initial tests were based on the assumption of unequal

variance, and coupled with the rather large sample size, makes the t-tests quite robust.

Table V presents the mean, maximum and minimum value for each of the five test variables included in equation (1). Both the two week and two month bid premium are shown. The numbers for the ACCRU variable are for the IDIF definition. T values and probability levels (significance levels) are shown in Table VI.

Although it was not hypothesized that MBO targets should differ in size from TPTO targets, the results clearly indicate that they do. The size variable ASSET is significant at less than the one tenth of one percent (.001) level. The average TPTO firm is more than three times as large as the average MBO firm.

The conclusion that MBO targets are generally smaller firms, would seem to indicate that managers are not able or willing to raise the staggering sums of money necessary to acquire a firm the size of a typical TPTO target. Since TPTO bidders are generally large firms themselves or established "raiders" with access to large levels of financing, they can more easily attempt a takeover.

The average amount of cash compensation for the highest paid executives does not seem to differ among the two types of firms. Managers of MBO targets earned an average of \$168,878 (cash and bonus) while managers of TPTO targets earned \$176,016. The t-test indicates that there is no significant difference between

the two. Hence, it cannot be asserted that managers stage a MBO to protect their cash compensation package. Although the COMP variable was not found to be significant, it was nevertheless retained for the multivariate tests in order to determine if the compensation factor could be related to the size of the firm.

The two groups do differ on the percentage of stock held by management. The STOCK variable is significant at the .0001 level. Managers of MBO firms already own an average of 14.27% of the outstanding shares of the firm prior to the tender offer. Managers of TPTO targets own only 6.39% of the outstanding shares of their firm. This would seem to suggest that it is easier to stage a management buyout when a substantial portion of the shares are already in the hands of management. In such a situation, management may have less fear of shareholder resistance in the possible form of lawsuits, classholder action, white knights, etc.

The results for PREMIUM are surprising but, nevertheless, as predicted. Whether the bid premium is measured from two months or two weeks prior to the announcement of the tender offer, the results are the same. The MBO bid premium is significantly less than the TPTO bid premium. When measured at two months, managers who engage in a management buyout offer their shareholders an average initial premium of 32% while third party (non-management) bidders offer an average initial premium of 43% (an 11% difference). The figures when measured at two weeks are 26% and

35%, respectively (a 9% difference). The two month and two week results are significant at less than the 3% and 2% level, respectively.

It is also not surprising that the two month premium is larger than the two week premium. Prior research referenced in earlier sections of this paper (Haw, Pastena and Lilian [1990], for example) shows that stock runups prior to mergers occur as early as thirty days prior to the announcement, and sometimes even earlier. The two percent difference can be attributed to the larger time frame used to measure the premium. Accordingly, the results reported here can be viewed as supporting the results reported by the earlier research.

Kaplan (1989), however, reports no significant difference in the size of the bid premium between MBO and TPTO firms. He concludes that "managers and investors who propose a buyout face an active market for corporate control that limits the degree of underpricing that can occur."

His result do not, necessarily, contradict the findings of this study. He measures his bid premium as the difference in the market price of the target's equity at the time the tender offer is completed and the price two months prior. As he notes in his paper, competitive bids are generally forthcoming after management announces a buyout. These bids tend to force management to raise its bid in line with the outside bidders.

This study measures the size of the premium from the initial announcement date and not the date the merger is consummated. The announcement date premium is relevant to this study since it is management's motivations prior to the announcement which are under study.

The results for the ACCRU variable indicate that managers of MBO firms record greater negative discretionary accruals in the period prior to a tender offer than do managers of TPTO firms. The mean accrual at a TPTO firm was a positive .13% (income increasing), while it was a negative .01% (income decreasing) at a MBO firm. This difference in the mean accruals is significant at the less than 1% level.

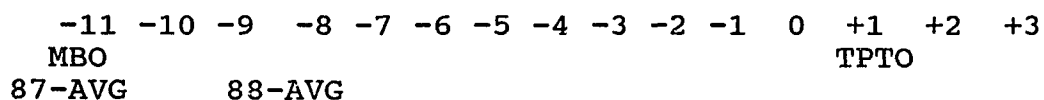
The ACCRU results must, however, be interpreted with caution. Although these results would seem to support the hypothesis that management of MBO firms are depressing reported income as compared to the management of TPTO firms, two additional procedures were employed to verify such a conclusion.

Because the literature has not established a definitive proxy for discretionary accruals, five additional proxies for discretionary accruals were tested. Appendix 3 defines each of the six proxies and cites their source in the literature. Therefore, any tests of significance must be considered to be joint tests of the hypothesis and the validity of the particular proxy. Table VII presents the t-test results for all six definitions.

As the table indicates, only the IDIF variable (definition 6, appendix 3) is both significant at the less than 1% level and of the predicted sign. Although HEALYY (definition 2, appendix 3) is significant at less than 1%, its sign is not as predicted by the theory. The other four proxies are clearly not significant.

Although the IDIF proxy for discretionary accruals is statistically significant and of the predicted sign, and would seem to support the hypothesis that management of MBO firms are manipulating reported income, an additional test was run to verify the validity of this particular proxy. The same IDIF proxy was calculated for all the firms on the Compustat annual industrial file for the years 1988 and 1987. This procedure is similar to the use of a control group to test the validity of a statistical test. In total, 2,470 calculations were performed for each year and the average IDIF for each year was obtained.

The average IDIF was -0.0089 and -0.0148 for 1988 and 1987, respectively, compared to the previously reported -0.0144 for the MBO firms and 0.0013 for the TPTO firms. The figure below places these results in perspective:



The calculated value for the MBO firms is almost exactly equal to the 1987 average for all firms on the annual industrial

file (-0.0144 vs. -0.0148), and it is extremely close to the 1988 average for all firms on the file (-0.0144 vs. -0.0089). It is the IDIF value for the TPTO firms at +0.0013 which is statistically different from the MBO value and from the calculated average of all firms.

This suggests that it is not the management of the MBO firms which are depressing reported income, but rather it is the management of the TPTO firms which are inflating reported income. This conclusion does not support the maintained hypothesis.

In summary, the PREMIUM result may be viewed as evidence in support of the contention that management is attempting to "steal" the firm from its shareholders. The results for ACCRU, however, do not support the hypothesis that management is actively reducing reported income in an effort to depress the share price of the stock prior to launching an MBO.

B. Multivariate Analysis

Multivariate analysis has as its advantage the ability to isolate the effect of each independent variable. For example, the ASSET variable was included to specifically eliminate the size effect when testing for the significance of the other variables. Three types of multivariate procedures were used; ordinary regression analysis, discriminant analysis and logistic analysis.

1. Regression Analysis

The results for the regression analysis is presented in Table VIII. The F value for the regression model is 5.747, which is significant at the .0001 level. This very high level of significance indicates that the variables of the model are very significant in explaining the MBO - TPTO dichotomy.

The R^2 of the model is 19.19%, and the adjusted R^2 is 15.85%. Although these percentages are low and may be indicative of missing variables, they are nevertheless consistent with other models in the literature. A search for the missing variable(s) might be a fruitful extension of this paper.

The high F value indicates that not only is the model itself very significant, but that the individual variables are also very significant. The STOCK variable is significant at less than 1%, ACCRU, COMP and ASSETS at less than 5%, and PREMIUM at approximately 5%.

The signs of the variables are consistent with the stated hypotheses. MBO firms are smaller than TPTO firms, and are characterized by lower bid premiums, higher levels of negative discretionary accruals and higher levels of compensation. The sign on the STOCK variable is positive, indicating that MBO firms are characterized by higher levels of stock ownership than TPTO firms. This result is consistent with the "feasibility" approach presented earlier, and indicates that higher levels of compensa-

tion and stock ownership are viewed by management as increasing the probability of a successful buyout.

2. Discriminant Analysis

Discriminant analysis is also a multivariate procedure which has as its objective the construction of a model which can discriminate between two groups, based on a set of given variables. Whereas regression analysis has the implied assumption of cause and effect between the independent and dependent variables, discriminant analysis makes no such assumption. Consequently, discriminant analysis may be more appropriate to test the hypotheses developed in this paper.

The analysis was run under two significantly different assumptions about the prior probabilities of inclusion in the two groups. It was first assumed that a random firm had an equal chance of being either a MBO firm or TPTO firm. The second analysis was run under the assumption that the chance of falling into a particular category was proportional to that category's proportion in the total sample of both MBO and TPTO firms.

Table XII presents the within correlation coefficients separately for each group. The results are not dependent on the choice of the prior probabilities. Table XIII presents the partial correlation coefficient computed from the pooled covariance matrix. Here too the results are not dependent on the choice of the prior probabilities.

The strongest association appears to be between compensation and ownership (significant at 0.0030) and compensation and size (significant at 0.0001). Compensation is positively related to the size of the firm and negatively related to management's ownership of the firm. Ownership and size are also negatively related (significant at 0.0120). Accruals and ownership are also negatively related, but significant at slightly above the 10% level (0.1111), indicating that as management increases its stake in the firm, there is less need to understate reported income in contemplation of a management buyout.

The ability of the discriminant model to correctly classify the firms into the MBO and TPTO groups is highly dependent on the assumption of the prior probabilities of a random firm being a member of a particular group. Table XIV presents the classification results under two assumptions. Panel A assumes equal prior probabilities, while panel B assumes proportional prior probabilities.

Under the equal prior probability assumption, the model incorrectly classifies half of the TPTO firms, in effect, assigning membership in the two groups almost at random. However, for the MBO firms, the model misclassifies only two out of 30 firms, a very impressive result.

The results are reversed under the assumption of proportionality. Here 92 out of 97 (95%) TPTO firms are

correctly classified. The MBO firms appear to be classified almost exactly as their proportional representation in the total sample.

3. Logit Analysis

The results of the logit analysis are presented in Table IX. The major difference in the logit results compared to the univariate results is in the COMP variable. The inclusion of the ASSET variable in the model effectively isolated and eliminated the size effect and measured the COMP variable while holding size constant. Not surprisingly, given that the two groups differ so greatly in size, the model reveals that the compensation levels, relative to the size of the firm, are significantly higher at the MBO firms. The COMP variable has a chi-square value of 6.20 which is significant at the less than the 2% level.

The overall model itself has a chi-square value of 24.37 (with 5 degrees of freedom), which is significant at the .02% level. All the individual variable are also highly significant, ranging from the less than 5% level for ASSETS to less than the 2% level for ACCRU and COMP.

The signs of the coefficients are as predicted by the H1 hypotheses, with the exception of the STOCK variable. Although it was predicted that lower levels of stock ownership by management would results in a greater probability of a management buyout, the results indicate otherwise. It appears that higher

levels of stock ownership by management pave the way for a management buyout. This result is complementary to the results reported by DeAngelo (1986) and indicates that at all levels of stock ownership, higher levels of ownership are associated with management buyouts rather than third party tender offers.

The logit results for PREMIUM and ACCRU support the contention that management buyouts are not in the best interests of the shareholders. The null hypothesis of no difference in the size of the bid premiums can be rejected approximately at the 2% level. Although the shareholders of an MBO target realize a significant premium, it is not of the magnitude realized by shareholders of firms which are the target of third party tender offers. This is evidence in support of the claim that management is taking large amounts of value away from the shareholders.

The results for ACCRU further add credence to the argument that management, when it is contemplating a buyout, is engaged in attempts to reduce reported net income and thereby depress the cost of the shares which it is acquiring. The null hypothesis, that the level of accruals are the same at MBO and TPTO targets, can be rejected at a confidence level of approximately 99%.

The model also reports that MBO firms are characterized by managers with higher levels of cash and bonus compensation. The null of no difference in the median compensation level can be rejected at approximately the 99% confidence level. This factor may be motivating management to stage a buyout in an effort to

protect their compensation and possibly their job.

Although the model's R^2 is quite low at 17%, it is consistent with other accounting models reported in the literature. Furthermore, the purpose of the model was not to discover the determinants of a management buyout as opposed to a third party tender offer. Rather, it was designed to test a number of hypotheses about management buyouts. In this respect, it performed more than adequately.

All the results reported so far are based on the IDIF proxy for ACCRU. As a sensitivity test of the model, the regression and logistic tests were also run with the other five proxies for ACCRU. Table X presents the F value and the probability level for the regression model with each of the six proxies. It is quite clear that the model with the best fit is based on the IDIF proxy. That model has an F value of 5.747 with a probability level of .0001. When any other proxy is substituted into the model, the F value declines and the power of the model is reduced.

Similar results are obtained when the six accrual proxies are substituted into the logistic model. The model with the IDIF proxy has the highest chi-square value (24.37) and is significant at the lowest probability level (.0002). Table XI presents the chi-square values and significance levels for the logistic model with each of the six accrual proxies.

Both the regression and logistic sensitivity tests confirm that the model presented in this paper discriminates quite well between MBO and TPTO firms. The power of the model is only slightly degraded when the alternative accrual proxies are included.

A t-test for the difference in the mean value of tax losses carryforwards reported by the two groups showed no significant difference. The t value was .9414 with a significance level of .3486. The inclusion of the tax factor in the logistic test resulted in a T value for the tax variable of .068 with a significance level of .9461. In fact, the inclusion of the tax variable degraded the overall model. Apparently, the two groups do not differ significantly in the amount of reported tax loss carryforwards.

VI. SUMMARY AND CONCLUSIONS

Many papers in the accounting and finance literature have examined various aspects of the shareholder/management conflict. This paper also examines the conflict between shareholders and management, but within the confines of the merger/takeover arena. In particular, the actions of management during a third party takeover are compared and contrasted to the activities of management during a management buyout.

The shareholder/management conflict is particularly severe during a management buyout. Managers as the buyer of the firm desire to pay as little as possible for the stock. Yet as agents of the shareholders, they owe a fiduciary duty to the shareholders to obtain the highest possible price for the stock. On the other hand, during a third-party tender offer for the firm, such a conflict does not exist, and we should observe management acting in the best interests of the shareholders. Two hypotheses, the management welfare hypothesis and the shareholder welfare hypothesis were used to develop conflicting predictions of managements' behavior during a management buyout. A number of testable hypotheses were then derived from these predictions, and they were subjected to empirical testing.

Specifically, the managerial welfare hypothesis would predict that during a management buyout, the buyers of the firm, its management, would attempt to underbid for the firm, regardless of the impact on the shareholders' wealth.

Furthermore, management might also be inclined to depress the price of the stock by increasing the magnitude of its negative discretionary accruals.

These two actions by management during a management buyout may be viewed as a "gaming" strategy designed to maximize the wealth of management at the expense of the shareholders.

The paper also examined the factors which may prompt management to stage a buyout. Two alternative approaches were proposed. The "feasibility" approach suggests that management that is highly compensated and already owns a relatively large percentage of the firms outstanding shares will find it easier to stage a management buyout. The "defensive" approach suggests that management that is highly compensated and owns a relatively small percentage of the firm's stock will engage in a management buyout in order to defend its position and compensation.

Two sample groups were formed. The management buyout sample consisted of 52 observations, and the third party buyout sample consisted of 140 observations.

Four variables was selected to proxy for each of the hypotheses. The PREMIUM variable measured the magnitude of the initial bid premium. The ACCRU variable measured the magnitude of the negative discretionary accruals. The COMP variable is the salary and bonus of the firm's highest paid executives. The STOCK variable measured the percentage of the firm's stock owned

by management and the board of directors.

The results of the various statistical test for the PREMIUM variable are unambiguous. No matter how defined or measured, the initial bid premium offered by a third party bidder exceeded on average the initial bid premium offered by management. The average bid premium offered by management was 26.94% compared to an initial bid premium of 35.22% offered by a third party bidder. The results were robust to various statistical tests. A difference of means t-test indicated that the PREMIUM variable was significant at the less than 3% level.

The results for the ACCRU variable are not as clear. Although six different definitions of discretionary accruals were tested, only one proved significant and in the correct direction. Initial analysis indicated that management buyout targets had negative discretionary accruals that were significantly different from the positive accruals calculated for the third party targets. However, when a control sample of all the Compustat firms was introduced, it was discovered that the control group's accruals was almost exactly equal to the accruals calculated for the management buyout group. This indicates that it is not the management buyout targets which are attempting to manipulate earnings but rather it is the targets of third party bidders which are using positive discretionary accruals.

The above results are not totally consistent with the

"gaming" strategy. Although management may be attempting to "steal" the firm via a low initial bid, management is not engaging in income manipulation in an effort to depress the price of the firm's stock.

What is interesting and requires additional research is the finding that targets of third party bidders are employing discretionary accruals to inflate reported income. Management of these firms may have gotten wind of a potential bid, either through a 13-D filing or as a rumor, and may be inflating income in an effort to assure the shareholders that the firm is doing well and that they should not tender their shares to the potential bidder.

The paper also present evidence that higher level of management compensation and higher levels of stock ownership were factors in the decision by management to stage a buyout. Management buyout targets were characterized by managers with higher levels of cash compensation and higher levels of stock ownership. A high level of compensation coupled with a high level of stock ownership may be viewed as "feasibility" factors which encourage management to stage a management buyout.

Table I
Frequency of Tender Offers by Year

	MBO		TPTO	
	number	percent	number	percent
1988	7	13.46%	26	18.57%
1987	7	13.46%	20	14.29%
1986	6	11.54%	33	23.57%
1985	9	17.31%	21	15.00%
1984	17	32.69%	19	13.57%
1983	3	5.77%	13	9.29%
1982	3	5.77%	8	5.71%
total	52	100.00%	140	100.00%

Table II
Sample of Management Buyout (MBO) Firms

Name of Firm -----	First WSJ Date -----	Initial Bid -----
1 AFG Industries	2/26/88	33.00
2 Alamito Co.	11/15/85	110.00
3 Alco Health	6/ 2/88	26.00
4 Amerace Corp.	6/21/84	47.50
5 American Bakeries Co.	10/23/86	43.00
6 American Sterilizer Co.	9/20/84	22.50
7 Axia Inc.	2/15/84	26.00
8 Beeline Inc.	6/22/84	10.00
9 Bekins Co	6/29/82	17.00
10 Bell & Howell	11/27/87	64.00
11 Blue Bell Inc.	5/4/84	50.00
12 Ceco. Ind. Inc.	4/16/86	37.00
13 Charter Medical A	9/29/87	40.00
14 Cinn. Microwave Inc.	9/8/86	11.25
15 Cone Mills Corp	11/30/83	70.00
16 Cook Intl.	11/12/84	14.35
17 Cullum Co	7/13/88	22.00
18 Denny's Inc.	5/31/84	45.00
19 Dr Pepper Co	12/5/83	22.00
20 Duckwall-Alco Stores	1/9/85	21.00
21 First Natl Supermarkets	9/13/85	
22 Fort Howard Corp	6/28/88	53.00
23 GAF Corp.	9/29/87	66.50
24 Guardian Industries	7/10/84	24.00
25 Harte-Hankes Comm. Inc.	3/28/84	28.00
26 Hospital Corp	9/16/88	47.00
27 Kay (Mary) Cosmetics	5/31/85	13.25
28 Lyon Metal Products Inc	1/19/84	23.00
29 Macy (R.H) & Co.	10/22/85	70.00
30 Metromedia Inc.	2/ 1/84	55.00
31 NFA Corp.	8/8/84	9.50
32 Norton Simon Inc	6/7/83	29.00
33 Pay 'N Save Corp.	9/4/84	22.00
34 Pizza Inn Inc.	7/11/86	10.50
35 Purolator	3/ 2/87	35.00
36 Restaurant Assoc. Inc.	8/27/87	14.00
37 Revco (D.S.) Inc.	3/12/86	36.00
38 Revlon Group Inc.	4/2/87	18.50
39 Royal Crown Cos Inc	1/11/84	35.00
40 SCOA Ind	7/2/85	35.00
41 Scott & Fetzer Co.	4/16/84	50.00
42 SFN Cos. Inc.	8/24/84	35.00
43 Shapell Ind. Inc.	5/31/84	65.00
44 Southland Corp.	7/6/87	77.00
45 Standard-Coosa-Thatcher	3/24/82	50.00
46 Stanwood Corp.	6/28/85	9.00
47 Stevens J P	2/ 9/88	43.00
48 Stokely-Van Camp	12/24/82	50.00
49 Strauss (Levi) & Co.	7/12/85	50.00
50 Viacom Intl. Inc.	9/17/86	40.50
51 Wackenhut Corp.	6/1/84	24.00
52 Wilton Ent	7/ 8/88	6.00

Table III

Sample of Third Party Tender Offer (TPTO) Firms

Name of Firm	First WSJ Date	Initial Bid
1 Aegis Corp	4/6/84	4.85
2 Air Express Intl	1/28/83	16.75
3 Allegheny Intl	3/10/87	24.60
4 Allied Supermarkets Corp	9/12/86	58.00
5 American Broadcasting Co	3/19/85	121.00
6 American Hospital Supply	6/24/85	
7 American Standard Inc	1/27/88	56.00
8 Anixter Bros Inc	11/21/86	14.00
9 Associated Dry Goods Corp	6/23/86	66.00
10 Atlantic Oil Corp	1/14/83	10.00
11 Avco Corp	7/27/84	40.00
12 Avondale Mills	2/6/86	23.41
13 Best Products Co	10/11/88	27.50
14 Blair (John) & Co	4/18/86	25.00
15 Borg-Warner Corp	11/26/86	45.50
16 Brockway Inc	9/18/87	60.00
17 Burlington Ind	4/27/87	60.00
18 Caesar's World	3/9/87	28.00
19 Care Corp	7/1/86	24.75
20 Carnation Co	9/5/84	83.00
21 Celanese Corp	11/4/86	245.00
22 Central Soya Co	3/15/85	23.00
23 Chem Nuclear Sys Inc	6/29/82	15.00
24 Chicago Pneumatic Tool Corp	3/19/86	38.00
25 Chilton Corp	11/27/85	33.00
26 Cities Service	6/1/82	50.00
27 Colonial Penn Group Inc	6/13/84	
28 Computervision Corp	12/28/87	13.50
29 Consolidated Oil & Gas	10/6/83	9.50
30 Dan River Inc	10/25/82	18.00
31 Datapoint Corp	1/11/85	23.00
32 Dayton-Hudson Corp	9/18/87	65.00
33 Duro-Test Corp	8/25/87	16.00
34 El Paso Co	12/21/82	24.00
35 Enstar Corp	5/23/84	18.00
36 Esmark Inc	5/4/84	55.00
37 Ex-Cell-O Corp	8/6/86	68.00
38 Farmers Group Inc	1/15/88	60.00
39 Federated Dept Stores Inc	1/26/88	47.00
40 Fey Industries Inc	5/7/84	5.37
41 Firestone Tire & Rubber Co	3/7/88	58.00
42 Fruehauf Corp	3/28/86	41.00
43 Gas Service Co	6/13/83	14.00
44 GATX Corp	2/13/86	38.00
45 Gencorp Inc	3/18/87	100.00
46 General Foods	9/27/85	115.00
47 Gillette Co	11/14/86	65.00

Table III (cont.)

Sample of Third Party Tender Offer (TPTO) Firms

48	Goodyear Tire & Rubber	11/7/86	49.00
49	Great Lakes Intl Inc	10/14/85	60.00
50	Gulf Corp	2/23/84	65.00
51	Hammermill Paper Co	7/25/86	52.00
52	Harcourt Brace Jovanovich	5/19/87	44.00
53	Harper & Row Publishers Inc	3/10/87	34.00
54	Heck's Inc	9/9/86	
55	Heilman (G) Brewing Inc	9/4/87	38.00
56	Homestake Mining	3/1/88	20.00
57	Hook Drugs Inc	1/31/85	31.00
58	Hospital Corp of America	4/10/87	47.00
59	Houston Natrl Gas	1/27/84	68.00
60	Hutton (E F) Group	12/4/87	29.25
61	Hyster Co	9/7/83	63.00
62	Informatics General Corp	4/16/85	25.00
63	Integrated Software	11/4/86	12.37
64	Interco Inc	7/29/88	64.00
65	Joy Mfg Co	12/2/86	31.00
66	Kentucky-Tenn Clay	1/11/83	123.00
67	Kidde Corp	8/6/87	66.00
68	Koppers Co	3/3/88	45.00
69	Kraft Inc	10/18/88	90.00
70	Kroger Co	9/20/88	55.00
71	Lamston (M H) Inc	3/28/83	34.50
72	Lear Siegler Inc	10/31/86	85.00
73	Leaseway Transportation Cor	11/14/86	51.00
74	Lenox Inc	6/9/83	87.00
75	Lucky Stores Inc	3/23/88	45.00
76	Lucky Stores Inc	9/25/86	35.00
77	Macmillan Inc	5/18/88	64.00
78	Marshall Field & Co	3/17/82	22.50
79	Masland (C H) & Sons	5/22/86	68.00
80	Media General	3/1/88	61.50
81	Micom Systems Inc	8/10/88	6.00
82	MidCon Corp	12/16/85	62.50
83	Midland-Ross Corp	7/2/86	28.00
84	Miller-Wohl Co	5/22/84	21.00
85	Moore McCormack Resources	2/23/88	31.00
86	Murray Ohio Mfg Co	5/9/88	48.00
87	National Can Corp	3/6/84	40.00
88	Natomas Co	5/23/83	23.00
89	Newmont Mining Corp	9/1/87	95.00
90	NL Industries Inc	3/26/86	16.00
91	Northwest Industries	9/21/84	50.00
92	Owens-Illinois Co	12/12/86	55.00
93	Pabst Brewing Co	2/23/82	16.00

Table III (cont.)

Sample of Third Party Tender Offer (TPTO) Firms

94 Pacific Lumber	10/2/85	38.50
95 Panhandle Eastern Corp	7/1/86	50.00
96 Pay 'N Pak Stores	4/3/87	19.00
97 Petrolane Inc	6/22/84	20.00
98 Pillsbury Co	10/4/88	60.00
99 Pogo Producing Co	4/22/83	25.00
100 Polaroid Corp	7/21/88	40.00
101 Prentice-Hall Inc	11/6/84	70.00
102 Prime Computer	11/15/88	20.00
103 Purex Industries Inc	1/29/82	31.50
104 Puritan Fashions Corp	11/15/83	16.50
105 RCA Corp	12/12/85	66.50
106 Reichhold Chemicals Inc	6/25/87	52.50
107 Research Cottrell	6/9/87	40.00
108 Revere Copper & Brass Inc	3/21/86	16.00
109 Revlon	8/20/85	47.50
110 Richardson-Vicks Inc	9/10/85	54.00
111 Rival Mfg Co	9/25/85	17.50
112 RJR Nabisco Inc	10/25/88	90.00
113 Roper Corp	2/29/88	37.50
114 Safeguard Business Systems	11/6/86	20.50
115 Safeway Stores Inc	7/9/86	58.00
116 SCM Corp	8/23/85	60.00
117 Scovil Inc	12/20/84	35.00
118 Sigmaform Corp	2/17/88	10.00
119 Sperry Corp	5/6/85	70.00
120 St. Regis Corp	7/19/84	52.00
121 Stecher-Traung-Schmidt Corp	7/1/83	16.50
122 Sterchi Bros Stores Inc	1/13/86	31.00
123 Sterling Drug Inc	1/5/88	72.00
124 Stop & Shop Cos	1/21/88	30.00
125 Storer Communications	4/26/85	86.47
126 Suburban Propane Gas Corp	12/9/82	45.00
127 Superior Oil Co	3/12/84	45.00
128 Talley Industries Inc.	6/26/86	24.25
129 Telex Corp	10/9/87	65.00
130 Texas Gas Resources	6/6/83	45.00
131 Unidynamics Corp	1/8/85	20.00
132 Union Electric Co	6/8/84	32.00
133 USX Corp	10/7/86	31.00
134 Verbatim Corp	3/14/85	7.55
135 Viking Freight	7/19/88	35.50
136 Walbar Inc	10/24/85	37.00
137 Walco National Corp	4/2/84	16.00
138 Walter (Jim) Corp	7/17/87	41.30
139 Wilson Foods Corp	7/26/88	12.50
140 Zondervan Corp	4/25/86	23.50

Table IV

Distribution of Sample Firms by Industry
(Using Two-Digit SIC Codes)

SIC Code	TPTO	MBO	SIC Code	TPTO	MBO
10	2		42	2	1
13	5		45		1
14	1		47	2	
16	1		48	1	2
20	9	4	49	4	1
22	5	4	50	1	
23	1	3	51	2	1
24	1		52	1	
25	1	1	53	6	3
26	1	1	54	6	3
27	8	2	56	1	
28	9	3	57	1	
29	2		58		3
30	4	1	59	2	2
32	3	3	62	1	
33	1		63	1	
34	3	3	64	1	
35	9		65		1
36	10	2	73	5	2
37	6		79	1	
38	2	2	80	2	2
39	2				
Total Classified				TPTO	MBO
				126	51
Not on Compustat				14	1
Total Sample				140	52

Table V
Summary Statistics
by Variable

Variable: 2 Week Bid PREMIUM (in \$)

Type	N	Mean	Stand-Dev	minimum	maximum
TPTO	131	35.22	30.91	- 2.20	273.09
MBO	48	26.94	16.26	- 5.60	66.82

Variable: 2 Month Bid PREMIUM (in \$)

Type	N	Mean	Stand-Dev	minimum	maximum
TPTO	131	43.05	36.21	-17.59	275.91
MBO	48	32.03	21.09	- 3.35	136.29

Variable: ACCRU - Discretionary Accruals (in \$)

Type	N	Mean	Stand-Dev	minimum	maximum
TPTO	105	.13	3.77	-13.79	20.86
MBO	35	-.01	2.71	- 6.56	7.08

Variable: COMP - Compensation (in \$)

Type	N	Mean	Stand-Dev	minimum	maximum
TPTO	132	176016	87420	11530	516044
MBO	43	168878	121959	40415	800669

Variable: STOCK - Ownership (in %)

Type	N	Mean	Stand-Dev	minimum	maximum
TPTO	132	6.39	8.28	0	46.31
MBO	44	14.27	11.70	0	43.45

Variable: ASSETS (proxy for SIZE)

Type	N	Mean	Stand-Dev	minimum	maximum
TPTO	106	2202.73	4099.15	3.62	25921.21
MBO	36	705.94	1063.80	20.18	6182.59

Table VI

**T-TESTS FOR DIFFERENCES IN THE MEAN
(assuming unequal variance)**

<u>Variable</u>	<u>TPTO</u>	<u>MBO</u>	<u>t-Value</u>	<u>Prob > t</u>	
PREMIUM (2 month)	43.05%	32.03%	2.509	.0132	***
Premium (14 days)	35.22%	26.94%	2.316	.0219	***
ACCRUAL	.13%	-.01%	2.672	.0091	**
COMPENSATION	\$176,016	\$168,878	.355	.7237	
OWNERSHIP	6.39%	14.27%	-4.137	.0001	*
ASSETS	2202.73	705.94	3.434	.0008	*

* significant at less than .1%

** significant at less than 1%

*** significant at less than 3%

Table VII

**ACCRUAL MODELS
T-TESTS FOR DIFFERENCES IN THE MEAN
(assuming unequal variance)**

<u>Variable</u>	<u>TPTO</u>	<u>MBO</u>	<u>t-Value</u>	<u>Prob > t</u>	
HEALYX	-63.41	-31.00	-.7695	.4430	
HEALYY	-104.67	-20.35	-3.248	.0015	*
DE1	-.0130	.0088	-1.448	.1509	
DE2	-.0614	-.0521	-1.0318	.3044	
DEP	.0033	.0051	-1.1474	.2545	
ACCRU	.0013	-.0144	2.6724	.0091	*

* significant at less than 1%

Table VIII
Regression Analysis - Results

<u>Variable</u>	<u>Parameter</u>	<u>T-Value</u>	<u>Prob > T</u>	
Intercept	.09442002	1.026	.3071	
PREMIUM	-.24192688	-1.914	.0579	***
ACCRUALS	-2.60259429	-2.290	.0238	**
COMPENSATION	8.73365E-07	2.122	.0359	**
OWNERSHIP	1.18888862	3.016	.0031	*
ASSETS	-.000021653	-2.001	.0476	**

* significant at less than 1%

** significant at less than 5%

*** significant at less than 10%

Table IX

Logit Regression Procedure - Results

<u>Variable</u>	<u>Beta</u>	<u>Chi-Square</u>	<u>Prob</u>	<u>R</u>
Intercept	-1.61924349	5.71	.0169	
PREMIUM	-3.63081161	5.29	.0214	-.154
ACCRUAL	-21.81779595	6.09	.0136	-.172
COMPENSATION	0.00000859	6.20	.0128	.174
OWNERSHIP	5.20310467	4.25	.0392	.127
ASSETS	-0.00067341	3.86	.0493	.116

127 Observations

97 TPTO

30 MBO

Table X
Sensitivity Analysis - Regression Models

<u>Accrual Proxy</u>	<u>Model F Value</u>	<u>Prob. > F</u>
1. ACCRU	5.747	.0001
2. HEALYX	4.589	.0008
3. HEALYY	4.589	.0008
4. DE1	4.964	.0004
5. DE2	4.614	.0008
6. DEP	4.640	.0007

Table XI
Sensitivity Analysis - Logistic Models

<u>Accrual Proxy</u>	<u>Model Chi-Square</u>	<u>Probability</u>
1. ACCRU	24.37	.0002
2. HEALYX	20.26	.0011
3. HEALY	20.26	.0011
4. DE1	21.64	.0006
5. DE2	20.35	.0011
6. DEP	20.45	.0010

Table XII

DISCRIMINANT ANALYSIS
WITHIN CORRELATION COEFFICIENTS

Third Party Buyouts

VARIABLE	Premium	Accrual	Compensation	Ownership	Assets
Premium	1.000000 0.0000	-0.096754 0.3458	0.104983 0.3061	-0.034384 0.7381	0.038627 0.7072
Accrual	-0.096754 0.3458	1.000000 0.0000	0.033130 0.7473	-0.155093 0.1293	-0.013496 0.8956
Compensation	0.104983 0.3061	0.033130 0.7473	1.000000 0.0000	-0.333734 0.0008	0.603780 0.0001
Ownership	-0.034384 0.7381	-0.155093 0.1293	-0.333734 0.0008	1.000000 0.0000	-0.250004 0.0135
Assets	0.038627 0.7072	-0.013496 0.8956	0.603780 0.0001	-0.250004 0.0135	1.000000 0.0000

Management Buyouts

VARIABLE	Premium	Accrual	Compensation	Ownership	Assets
Premium	1.000000 0.0000	-0.221265 0.2400	0.217483 0.2483	0.050706 0.7902	0.282223 0.1308
Accrual	-0.221265 0.2400	1.000000 0.0000	-0.003164 0.9868	-0.125762 0.5078	-0.021599 0.9098
Compensation	0.217483 0.2483	-0.003164 0.9868	1.000000 0.0000	-0.159257 0.4006	0.865348 0.0001
Ownership	0.050706 0.7902	-0.125762 0.5078	-0.159257 0.4006	1.000000 0.0000	-0.305182 0.1010
Assets	0.282223 0.1308	-0.021599 0.9098	0.865348 0.0001	-0.305182 0.1010	1.000000 0.0000

Table XIII

DISCRIMINANT ANALYSIS
 PARTIAL CORRELATION COEFFICIENTS
 COMPUTED FROM POOLED COVARIANCE MATRIX

VARIABLE	Premium	Accrual	Compensation	Ownership	Assets
Premium	1.000000 0.0000	-0.105256 0.2408	0.107479 0.2310	-0.020066 0.8235	0.046107 0.6082
Accrual	-0.105256 0.2408	1.000000 0.0000	0.022259 0.8046	-0.142651 0.1111	-0.013567 0.8802
Compensation	0.107479 0.2310	0.022259 0.8046	1.000000 0.0000	-0.262521 0.0030	0.531287 0.0001
Ownership	-0.020066 0.8235	-0.142651 0.1111	-0.262521 0.0030	1.000000 0.0000	-0.223259 0.0120
Assets	0.046107 0.6082	-0.013567 0.8802	0.531287 0.0001	-0.223259 0.0120	1.000000 0.0000

Table XIV

Panel A

NUMBER OF OBSERVATIONS AND PERCENTS CLASSIFIED

FROM TYPE	Third Party Buyouts	Management Buyouts	TOTAL
Third Party Buyouts	49	48	97
	50.52	49.48	100.00
Management Buyouts	2	28	30
	6.67	93.33	100.00
TOTAL PERCENT	51	76	127
	40.16	59.84	100.00
PRIORS	0.5000	0.5000	

Panel B

NUMBER OF OBSERVATIONS AND PERCENTS CLASSIFIED

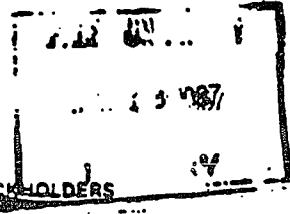
FROM TYPE	Third Party Buyouts	Management Buyouts	TOTAL
Third Party Buyouts	65	32	97
	67.01	32.99	100.00
Management Buyouts	3	27	30
	10.00	90.00	100.00
TOTAL PERCENT	68	59	127
	53.54	46.46	100.00
PRIORS	0.7638	0.2362	

Appendix 1

AFG Industries, Inc.
Proxy Statement



AFG Industries, Inc.
P.O. BOX 18894
IRVINE, CALIFORNIA 92713 (714) 853-8026



NOTICE OF ANNUAL MEETING OF STOCKHOLDERS
APRIL 13, 1987

TO THE STOCKHOLDERS:

Notice is hereby given that the Annual Meeting of Stockholders of AFG INDUSTRIES, INC. (the "Corporation") will be held at the Irvine Hilton Hotel, 17600 Jamboree Boulevard, Irvine, California 92714, on Monday, April 13, 1987, at 10:00 A.M., local time, for the following purposes:

- (1) To elect three members to the 1990 class of the Board of Directors to serve until their terms expire and until their successors shall be elected and shall qualify;
- (2) To consider and act upon a proposal to amend the Corporation's Restated Certificate of Incorporation to increase the Corporation's number of authorized shares of common stock to one hundred million (100,000,000) shares;
- (3) To consider and act upon a proposal to amend the Corporation's Restated Certificate of Incorporation to limit potential liability of the members of the Corporation's Board of Directors to the Corporation or its Stockholders for monetary damages for breach of their fiduciary duty as directors to the extent permitted by the Delaware General Corporation Law;
- (4) To ratify the selection of independent public accountants;
- (5) To consider and act upon a proposal to amend the Corporation's Restated Certificate of Incorporation to increase the maximum permitted number of directors of the Corporation to twelve (12); and
- (6) To transact such other business as may properly come before the Meeting or any adjournment thereof.

The Board of Directors has fixed the close of business on February 27, 1987, as the record date for the determination of Stockholders entitled to notice of and to vote at the Meeting.

A copy of the Annual Report for the year 1986 accompanies this Notice. A complete list of Stockholders entitled to notice of and to vote at the Meeting will be available and open to the examination of any Stockholder for any purpose germane to the Meeting during ordinary business hours on and after April 3, 1987, at the office of the Corporation, 18200 Von Karman Avenue, Suite 700, Irvine, California 92715.

You are cordially invited to attend the Meeting. If you do not expect to be present in person, you are requested to fill in, date, sign and return the enclosed proxy.

By Order of the Board of Directors,
JAMES W. BRADFORD, JR.
Secretary

Irvine, California
March 8, 1987

1000 12-111

Appendix 1 (continued)

AFG Industries, Inc. Proxy Statement

EXECUTIVE COMPENSATION

Cash Compensation

The cash compensation of each of the Corporation's four executive officers and of all executive officers as a group for services rendered in all capacities to the Corporation and its subsidiaries during 1986 is set forth in the following table. The table is footnoted to explain each element of compensation in context.

1986 CASH COMPENSATION TABLE

Name of individual or number of persons in group	Capacities in which served	Cash Compensation (1) (2)
R. D. Hubbard	Chief Executive Officer of the Corporation	\$ 648,340 (3)
Wayne G. Basler	President of the Corporation	\$ 372,092
Raymond C. Cunningham	Executive Vice President of the Corporation	\$ 200,000
Gary G. Miller	Treasurer of the Corporation	\$ 188,339
All Executive Officers as a group (4 persons)		\$1,706,771

- (1) Bonus payments made in 1987 pursuant to the Corporation's Executive Award Plan for services rendered in 1986 are included in the cash compensation figures. See "Compensation Plans," below, for a description of the Executive Award Plan.
- (2) Contributions made on behalf of the Corporation's executive officers to the Corporation's Savings and Investment Plan and as to which the executive officer had the right to receive such contribution in cash are included in the cash compensation figures. See "Compensation Plans," below, for a description of the Corporation's Savings and Investment Plan.
- (3) In 1986, the Corporation leased a Gates Lear Jet Model 35 from an affiliate of Mr. Hubbard for \$22,000.00 per month. The lease expires May 31, 1992. The jet has been leased by the Corporation from Mr. Hubbard or his affiliates since 1978. The Corporation has obtained estimates from three other companies for the rental of a comparable business jet, none of which offered terms more favorable to the Corporation than the terms obtained from Mr. Hubbard. No amounts paid pursuant to the lease are included in the Cash Compensation Table.

Appendix 1 (continued)

AFG Industries, Inc. Proxy Statement

CERTAIN STOCKHOLDERS

The following table sets forth information as of February 27, 1987, with respect to Common Stock of the Corporation owned by each person who owns beneficially 5% or more of the outstanding voting Common Stock of the Corporation, by all directors and nominees individually, and by all directors and officers as a group.

Name and Address	Amount Beneficially Owned	Percentage of Class (1)
Wayne G. Basler 1400 Lincoln Street Kingsport, Tennessee 37660	842,778	8.0%
Fred L. Cason 1324 Dupont Kingsport, Tennessee 37664	306	•
R. D. Hubbard 18200 Von Karman Avenue Suite 700 Irvine, California 92715	2,156,499	12.8%
Fran D. Jabara 35 Hampton Drive Wichita, Kansas 67207	301,281	1.8%
Lawrence M. Jones 250 N. St. Francis Avenue Wichita, Kansas 67202	1,050	•
Donald M. Koll 4343 Von Karman Avenue Newport Beach, California 92660	7,000	•
John H. McKay 1001 Bayshore Boulevard Tampa, Florida 33607	0	•
Directors and Officers as a group (14 persons)	3,352,087	19.8%
Leo Zuckerberg 312 Waterman Avenue East Providence, Rhode Island 02940	<u>1,000,045 (2)</u>	<u>5.9%</u>

The information in the above table is based on the Corporation's stock records and schedules filed with the Securities and Exchange Commission.

(*) Less than one percent

(1) Calculations are based on 16,889,809 outstanding voting shares.

(2) The 1,000,045 shares are owned of record by a group including the following: Leo Zuckerberg; Muriel Zuckerberg; Trustees of the Associated Imports, Inc. Profit Sharing Plan; Associated Imports Money Plan; and Associated Imports, Inc. The address of all members of the group is 312 Waterman Avenue, East Providence, Rhode Island 02940.

Appendix 2

Talley Industries, Inc.
Proxy Statement

TalleyTM
Industries

**NOTICE OF 1986
ANNUAL MEETING AND
PROXY STATEMENT**

YOUR VOTE IS IMPORTANT

YOU ARE URGED TO DATE, SIGN, AND PROMPTLY RETURN YOUR PROXY SO THAT YOUR SHARES MAY BE VOTED IN ACCORDANCE WITH YOUR WISHES AND IN ORDER THAT THE PRESENCE OF A QUORUM MAY BE ASSURED. THE PROMPT RETURN OF YOUR SIGNED PROXY, REGARDLESS OF THE NUMBER OF SHARES YOU HOLD, WILL AID THE COMPANY IN REDUCING THE EXPENSE OF ADDITIONAL PROXY SOLICITATION. THE GIVING OF SUCH PROXY DOES NOT AFFECT YOUR RIGHT TO VOTE IN PERSON IN THE EVENT YOU ATTEND THE MEETING AND SO REQUEST.

2702 North 44th Street
Phoenix, Arizona 85008

Appendix 2 (continued)

Talley Industries, Inc. Proxy Statement

II. SECURITY OWNERSHIP OF MANAGEMENT OF THE COMPANY

The following table sets forth information as of February 5, 1986, regarding beneficial ownership by the officers and directors of the Company of the total number of the outstanding shares of its Common Stock, Series A Preferred Stock and Series B Preferred Stock considered in the aggregate:

Title of Class	Name and Address of Beneficial Owner	Amount and Nature of Beneficial Ownership ²	Percent of Class ^{1,16}
	Oliver R. Grace, Jr.	631,140 ³	8.15
	William B. Bolton	630,510 ⁴	8.15
	Hubert T. Mandeville	161,180 ⁵	2.08
	William H. Mallender	115,074 ⁶	1.45
	Jack C. Crim	45,975 ⁷	
Aggregate of Common Stock ¹	Townsend W. Hoopes	5,175 ⁸	
	Thomas F. Reddy, Jr.	3,766	
	David Victor	2,000	
	Wesley A. Stanger, Jr.	1,575 ⁹	
	Fred G. Schuller	1,550 ¹⁰	
	John C. Robinson	1,365 ¹¹	
	John D. MacNaughton, Jr.	1,105 ¹²	
	John W. Stodder	1,025 ¹³	
	Emiel T. Nielsen, Jr.	1,000	
	Alex Stamatakis	1,000	
	All directors and officers as a group (22 persons) including those listed above	1,028,780 ^{14,15}	13.29

¹ Each share of Series A Preferred Stock is convertible into .76 shares of Common Stock and each share of Series B Preferred Stock is convertible into 1.05 shares of Common Stock. Accordingly, giving effect to the conversion of each share of Series A Preferred Stock and each share of Series B Preferred Stock to Common Stock, the Class shall be the Aggregate of Common Stock or 7,741,061 shares (5,945,407 shares plus 65,814 shares plus 1,729,840 shares).

² Includes shares under options exercisable on February 5, 1986 and options which will become exercisable within 60 days thereafter. This also includes the shares of Company Common Stock awarded but not yet issued to the officers under the Long Term Incentive Plan to which the officers have certain unvested rights as set forth therein (See Section V. Executive Compensation — Long Term Plan and Restricted Plan).

³ The stock listed includes 110 shares of Common Stock together with 300 shares of Series B Preferred Stock owned by Mr. Grace individually and 600 shares of Series B Preferred Stock owned by Mr.

Appendix 2 (continued)

Talley Industries, Inc. Proxy Statement

V. EXECUTIVE COMPENSATION

The following is a table showing all cash remuneration, during fiscal year 1985, of the five most highly paid executive officers or directors of the Company and of all executive officers and directors as a group.

Name of Individual or Number of Persons in Group	Capacity in Which Served	Salary, Fees, Directors' Fees, Commissions and Bonuses ^{1,2}
William H. Malleader	Chairman of the Board and Chief Executive Officer ³	\$ 564,600
Jack C. Crim	President and Chief Operating Officer ⁴	377,010
Edward T. Ryan, Jr.	Vice President	189,875
Donald L. Corey	Vice President	186,150
Richard Allen	Vice President	147,431
All officers and directors as a group (22 persons) including those listed above. ⁵		\$2,217,734

¹ The remuneration shown includes salaries, fees and bonuses paid to executive officers and directors. Bonuses are payable to the officers and other key executive employees of the Company in connection with work performed during the fiscal year ended December 31, 1985, under an executive incentive plan. The calculation of these bonuses is related directly to Company profits as a percentage of return on equity and the overachievement of certain objectives of the Company as approved by the Board of Directors.

² Each director who is not an employee of the Company and its subsidiaries is paid a retainer at the rate of \$20,000 per year and a fee of \$500 for attending a committee meeting. Travel and related expenses incurred by the directors in connection with Board or committee meetings are reimbursed by the Company. The Board of Directors of the Company, at their meeting on February 11, 1981, approved, effective April 1, 1981, the Talley Industries, Inc. Retirement Plan Directors Only as amended on September 30, 1985, (the "Plan"). The Plan provides deferred compensation to the directors in recognition of personal services rendered. Members of the Board of Directors are eligible to participate in this Plan if they are not full time employees of the Company or one of its subsidiaries; are not covered by another retirement plan of the Company or any of its subsidiaries; and have served as a director of the Company for at least fifteen (15) years. Based upon the compensation received simply for being a director (presently \$20,000 per year) each participant, upon retirement would be eligible to receive an annual retirement benefit equal to the eligible compensation for the full year of service during which the compensation was the highest

Appendix 3

Definitions and COMPUSTAT calculations of ACCRU variables

1. HEALYX is defined as the sum of the change in accounts receivable plus inventory less the sum of the change in accounts payable and taxes payable, less the annual depreciation charge. This definition of discretionary accruals follows Healy (1985). In COMPUSTAT terms it is defined as (X = year tender offer announced, Y = prior year, Z = second prior year) $\text{Data}(X,2) - \text{Data}(Y,2) + \text{Data}(X,3) - \text{Data}(Y,3) - (\text{Data}(X,70) - \text{Data}(Y,70) + \text{Data}(X,71) - \text{Data}(Y,71)) - \text{Data}(X,14)$.

2. HEALYY is defined as item 1. above, except that it is calculated for the year prior to the tender offer. In COMPUSTAT terms it is defined as $\text{Data}(Y,2) - \text{Data}(Z,2) + \text{Data}(Y,3) - \text{Data}(Z,3) - (\text{Data}(Y,70) - \text{Data}(Z,70) + \text{Data}(Y,71) - \text{Data}(Z,71)) - \text{Data}(Y,14)$.

3. DE1 is defined as unexpected accruals per DeAngelo (1986), and where the prior period accrual proxies for the expected accrual. It is operationalized as $(\text{HEALYX} - \text{HEALYY})/\text{total assets}$. Total assets is defined in COMPUSTAT terms as $\text{Data}(X,6)$.

4. DE2 is defined as net income less cash flow standardized by total assets, per DeAngelo (1988). It is defined in COMPUSTAT terms as $(\text{Data}(X,18) - \text{Data}(X,110))/\text{Data}(X,6)$.

5. DEP is the "unexpected" depreciation charge standardized by total assets, per DeAngelo (1988). In COMPUSTAT terms it is defined as $(\text{Data}(X,14) - \text{Data}(Y,14))/\text{Data}(X,6)$.

6. IDIF is defined as the change in the difference between operating income before depreciation and net income before extraordinary items, standardized by total assets. In COMPUSTAT terms it is defined as $(\text{Data}(X,18) - \text{Data}(X,13) - (\text{Data}(Y,18) - \text{Data}(Y,13)))/\text{Data}(X,6)$.

BIBLIOGRAPHY

- Abdel-Khalik, A., "A Note on the Validity of the WSJ as a Source of "Event" Dates," Journal of Accounting Research (Autumn 1984), p. 758-759.
- Altman, E., "Financial Ratios, Discriminant Analysis and the Prediction of Corporate Bankruptcy," Journal of Finance (September 1968), p. 589-610.
- _____, R. Haldeman and P. Narayanan, "Zeta Analysis: A New Model to Identify Bankruptcy Risk of Corporations," Journal of Banking and Finance (June 1977), p. 29-54.
- Amihud, Y., P. Dodd and M. Weinstein, "Conglomerate Mergers, Managerial Motives and Stockholder Wealth," Journal of Banking and Finance (1986), p. 401-510.
- Amoako-Adu, B., and J. Yagil, "Stock Price Behavior Between the Base, Announcement, and Consummation Dates of the Merger," Journal of Economics and Business (May 1986), p. 105-111.
- Ang, J. and J. Chua, "Corporate Bankruptcy and Job Losses Among Top Level Managers," Financial Management (Winter 1981), p. 7-74.
- Asquith, P., R. Bruner, and D. Mullins, "Merger Returns and the Form of Financing," Working Paper, Harvard Business School (1987).
- Baron, D. P., "Tender Offers and Management Resistance," Journal of Finance, (May 1983), p. 331-342.
- Benston, G. J., "The Self-Serving Management Hypothesis: Some Evidence," Journal of Accounting and Economics, (April 1985), p. 67-84.
- Berkovitch, E. and N. Khanna, "How Target Shareholders Benefit from Value-Reducing Defensive Strategies in Takeovers," The Journal of Finance, (March 1990), p. 137-156.

- Bradley, M., "Interfirm Tender Offers and the Market for Corporate Control," Journal of Business, (October 1980), p. 345-376.
- Bradley, M., A. Desai and E. Kim, "Synergistic Gains from Corporate Acquisitions and their Division between the Stockholders of Target and Acquiring Firms," Journal of Financial Economics, (May 1988), p. 3-40.
- Dann, L. and H. DeAngelo, "Corporate Financial Policy and Corporate Control: A Study of Defensive Adjustments in Asset and Ownership Structure," Journal of Financial Economics, (1988), p. 87-128.
- DeAngelo, L., "Accounting Numbers as Valuation Substitutes: A Study of Management Buyouts of Public Stockholders," The Accounting Review (July 1986), p. 400-420.
- _____, "Managerial Competition, Information Costs, and Corporate Governance: The Use of Accounting Performance Measures in Proxy Contests," Journal of Accounting and Economics (January 1988), p. 3-36.
- DeAngelo, H., L. DeAngelo and E. Rice, "Going Private: Minority Freezeouts and Stockholder Wealth," Journal of Law and Economics (October 1984), p. 367-401.
- Dennis, D. and J. McConnell, "Corporate Mergers and Security Returns," Journal of Financial Economics (June 1986), p. 143-187.
- Dhaliwal, D., G. Salamon and E. Smith, "The Effect of Owner Versus Management Control on the Choice of Accounting Methods," Journal of Accounting and Economics (1982), p. 41-53.
- Dietrich, J. and E. Sorenson, "An Application of Logit Analysis to Prediction of Merger Targets," Journal of Business Research (1984).
- Dodd, P, "Merger Proposals, Management Discretion and Stockholder Wealth," Journal of Financial Economics (June 1980), p. 105-138.

- Dodd, P. and R. Ruback, "Tender Offers and Stockholder Returns," Journal of Financial Economics (December 1977), p. 351-374.
- Fishman, M. J., "A Theory of Preemptive Takeover Bidding," RAND Journal of Economics (Spring 1988), p. 88-101.
- _____, "Preemptive Bidding and the Role of the Medium of Exchange in Acquisitions," The Journal of Finance (March 1989), p. 41-57.
- Hansen, R. G., "A Theory for the Choice of Exchange Medium in Mergers and Acquisitions," Journal of Business (1987), p. 75-79.
- Haw, I., V. Pastena and S. Lilien, "Market Manifestations of Nonpublic Information Prior to Mergers: The Effect of Ownership Structure," The Accounting Review (April 1990), p. 432-451.
- Healy, P., "The Effect of Bonus Schemes on Accounting Decisions," Journal of Accounting and Economics (April 1985), p. 85-107.
- Jain, P. C., "The Effect of Voluntary Sell-off Announcements on Shareholder Wealth," The Journal of Finance (March 1985), p. 209-224.
- Jensen, M. and W. Meckling, "Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure," Journal of Financial Economics (October 1976), p. 305-360.
- Jensen, M. and R. Ruback, "The Market for Corporate Control: The Scientific Evidence," Journal of Financial Economics (April 1983), p. 5-50.
- Kaplan, R. S., "Comments on Paul Healy," Journal of Accounting and Economics (April 1985), p. 109-113.
- Kaplan, S., "Management Buyouts: Evidence on Taxes as a Source of Value," The Journal of Finance (July 1989), p. 611-632.

- _____, "The Effects of Management Buyouts on Operating Performance and Value," Journal of Financial Economics (December 1989), p. 217-254.
- Larcker, D., "Managerial Incentives in Mergers and their Effect on Shareholder Wealth," Midland Corporate Finance Journal (Winter 1983), p. 29-35.
- Lehn, K and A. Poulsen, "Free Cash Flows and Stockholder Gains in Going Private Transactions," The Journal of Finance (July 1989), p. 771-787.
- Lev, B., "Observations on the Merger Phenomenon and Review of the Evidence," Midland Corporate Finance Journal (Winter 1983), p. 6-16.
- Lewellen, W., C. Loderer, and A. Rosenfeld, "Mergers, Executive Risk Reduction, and Stockholder Wealth," Journal of Financial and Quantitative Analysis, (December 1989), p. 459-472.
- Liberty, S. E., and J. L. Zimmerman, "Labor Union Contract Negotiations and Accounting Choices," The Accounting Review (October 1986), p. 692-712.
- McConnell, J. and T. Nantell, "Corporate Combinations and Common Stock Returns: The Case of Joint Ventures," The Journal of Finance (June 1985), p. 519-536.
- Malatesta, P. H., "The Wealth Effect of Merger Activity and the Objective Functions of Merging Firms," Journal of Financial Economics (April 1983), p. 155-181.
- Maupin, R., C. Bidwell and A. Ortegren, "An Empirical Investigation of the Characteristics of Publicly-Quoted Corporations Which Change to Closely-Held Ownership Through Management Buyouts," Journal of Business, Finance and Accounting (Winter 1984), p. 435-450.
- Mikkelson, W. and R. Ruback, "An Empirical Analysis of the Interfirm Investment Process," Journal of Financial Economics (1985), p. 523-553.

- Morck, R., A. Shleifer and R. Vishny, "Do Managerial Objectives Drive Bad Acquisitions?," The Journal of Finance, (March 1990), p. 31-48.
- Palepu, K., "Predicting Takeover Targets, A Methodological and Empirical Analysis" Journal of Accounting and Economics (1986), p. 3-35.
- Pastena, V., and W. Ruland, "The Merger/Bankruptcy Alternative," Accounting Review (April 1986), p. 288-301.
- Roll, R., "The Hubris Hypothesis of Corporate Takeovers," Journal of Business (April 1986), 197-216.
- Rosenfeld, J., "Additional Evidence on the Relation Between Divestiture Announcements and Shareholder Wealth," The Journal of Finance (December 1984), p. 1437-1438.
- Schipper, K. and R. Thompson, "The Impact of Merger-Related Regulations on the Shareholders of Acquiring Firms," Journal of Accounting Research (Spring 1983), p. 184-221.
- Seyhun, H., "Do Bidding Managers Knowingly Pay Too Much for Target Firms?," The Journal of Business (October 1990), p. 439-464.
- Stein, B. J., "Shooting Fish in a Barrel: Why Management Always Makes a Bundle in an LBO," Barron's (January 12, 1987).
- Stevens, D., "Financial Characteristics of Merged Firms: A Multivariate Analysis," Journal of Financial and Quantitative Analysis (March 1973), p. 149-165.
- Stoughton, N. M., "The Information Content of Corporate Merger and Acquisition Offers," Journal of Financial and Quantitative Analysis (June 1988), p. 175-197.
- Stulz, R., R. Walkling and M. Song, "The Distribution of Target Ownership and the Division of Gains in Successful Takeovers," The Journal of Finance (July 1990), p. 817-839.

Tehranian, H., N. G. Travlos and J. F. Waegelein, "Management Compensation Contracts and Merger-Induced Abnormal Returns," Journal of Accounting Research (Supplement 1987), p. 51-76.

Walkling, R., "Predicting Tender Offer Success: A Logistic Analysis," Journal of Financial and Quantitative Analysis (December 1985), p. 461-478.

_____ and R. O. Edmister. "Determinants of Tender Offer Premiums," Financial Analysts Journal (January/February 1985), p. 30-37.

_____ and M. Long, "Agency Theory, Managerial Welfare, and Takeover Bid Resistance," The Rand Journal of Economics (Spring 1984).

Yen, G., "Merger Proposals, Managerial Discretion and Magnitude of Shareholders' Wealth Gains," Journal of Economics and Business (August 1987), p. 251-266.