The American Experience with Corporate Takeovers and Securities Regulation in Korea

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I. Introduction

The purpose of this paper is two-fold: first, to forecast future corporate takeover activities in Korea, and second, to help acquaint students and regulators of the Korean stock market with the interfirm tender offer process before it migrates to Korea. To this end, I examine which organizational form of corporations is best suited for the challenges of future economic growth in Korea. The organizational theory of firms suggests that to maintain the current pace of economic growth in Korea, the corporate sector will undergo an important change in the ownership structure. The new corporations will be characterized by widespread distribution of stock ownership and a clear separation of ownership and control.

The American corporation has already undergone change in the ownership structure. In this paper I argue that the change in the ownership structure has brought forth the advent of interfirm tender offers in the U.S. during the sixties. This American experience with corporate takeovers suggests that if the Korean corporation undergoes the predicted change in ownership structure, the Korean stock market will experience unprecedented takeover activities via the "Korean style" interfirm tender offers.

To help acquaint students and regulators of the Korean stock market with the interfirm tender offer process before its emergence in Korea, I examine the legal and institutional environment for the takeover process in the U.S. I then present a model of the interfirm tender offer process that is consistent with the existing legal and institutional constraints. The implication of the model is tested by examining the empirical evidence on tender offers. The model and the evidence provide insights into the economic effects of acquisitions via tender offers and implications for regulation of tender offers in Korea.

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II. Economic Growth and Change in Corporate Ownership Structure

To maintain the current pace of economic growth in Korea, the corporate sector will require more highly specialized decision skills, along with large amounts of capital with large aggregate risk to be borne by the suppliers of capital. The most common corporate organizational form now in Korea, closed corporations in which the most important decision maker is also the major stockholder, will not be able to meet these challenges of economic growth. Closed corporations suffer efficiency losses because decision agents must be chosen on the basis of wealth as well as for their decision skills. Furthermore, the major stockholders of these corporations are unable to achieve efficient diversification of risk, and hence, are less inclined to undertake investments with uncertain payoffs.

Open corporations, which are characterized by widespread distribution of stock ownership and a clear separation of ownership and control, provide the organizational form for a complex decision hierarchy that makes use of specialized decision skills throughout the organization. Furthermore, common stock of open corporations allows risk to be spread across many stockholders who can diversify across corporations offering such claims. The diversification will eliminate the unsystematic risk (diversifiable risk) in the project and hence will lower the risk premium component in the cost of capital. This means that the cost of capital obtainable through an open corporation will be lower than that obtainable through a closed corporation. The owner/manager of a closed corporation will have a higher reservation price for bearing risk because he cannot achieve efficient diversification of risk. Consequently, a large number of closed corporations will become open corporations to finance the economic growth. Those that remain as closed corporations will either lose their share of the economic growth or will fail in the competition for survival.[1]

III. Emergence of Interfirm Tender Offers

The American corporation has already undergone change in the ownership structure. Formerly, management's responsibility for conduct of the business was closely identified with the responsibility of the owner. In the new corporate structure, the former "owner-manager-entrepreneur" has

1) For the rationale of the existence of other forms of corporate organizations, see Fama and Jensen (1983).

been replaced by the professional manager who holds little ownership interest in the corporation. An important consequence of this change is the ownership structure was that the diffusely held corporations became increasingly vulnerable to univited and unfriendly takeover attempts by other firms.

In the United States the two most common forms of capital market transactions to effect corporate acquisition are merger proposals and interfirm tender offers. The feature which distinguishes these two mechanisms is the question of who has the first opportunity to accept or reject the acquisition bid — the target managers as the stockholders. Corporate merger proposals are made by the managers of a bidding firm to the managers of a target firm. If the managements of the two firms are able to reach an agreement as to the terms of a merger, then the proposal is taken to the stockholders of the two firms for their ratification. A merger proposal that is supported by their managers is rarely rejected by stockholders. If the managements of the bidding and target firms are unable to reach an agreement, then the negotiations are discontinued and the merger process ends. In other words, target managers have veto power over all merger proposals; consequently, many merger proposals never reach the target stockholders because they are unacceptable to the target managers.

Tender offers are bids made by the management of one firm to purchase a certain fraction of the outstanding shares of another firm for a specified price on a specified date. They are bids made directly to the stockholders of the target firm, and hence do not require the acquiescence of the target management. If the managers of a diffusely held target are not favorably disposed toward a merger proposal, the bidder can circumvent the target managers by making a tender offer to the stockholders. Consequently, many tender offers are made and successfully executed over the expressed objections of the management of the target firm.

Tender offers are a relatively new phenomenon in the market for corporate control. Until the mid fifties, the tender offer was considered to be a method by which a firm could only reacquire its own shares (intrafirm tender offer). Interfirm tender offers were not used frequently for takeover bids until the sixties. Austin and Fishman (1970) report that out of 235 interfirm tender offers during the period 1956 through 1967, only 8 occurred prior to 1960.

In a study (1984a) I completed recently with Michael Bradley, we argue that the ownership structure of the target determines whether the takeover bid takes the form of a merger proposal or a tender offer. To demonstrate our theoretical argument, consider a bidding firm that ultimately intends to acquire 100% of a target's outstanding shares. We assume that whether

the takeover attempt takes the form of a tender offer or of a merger proposal does not affect the benefits derived from the acquisition. Thus, the choice of takeover mechanism will depend solely on the associated costs, and a wealth-maximizing bidding firm will choose the least-cost alternative.

The costs of tender offers and merger proposals depend on the reservation price of the target shareholders for their shares and the reservation price of the managers for relinquishing control of the firm. The reservation price of the target shares should equal the current market price plus any increase in the per share value that is due to revised expectations regarding the firm's future value. We denote this per share reservation price by P_S. The reservation price of the managers for relinquishing control of the firm is equal to the present value of all pecuniary and nonpecuniary benefits derived from their current positions above and beyond that which can be obtained elsewhere. We denote this reservation price for control by C.

Now assume that the manager of the target firm holds sufficient shares to determine the outcome of an acquisition bid. Thus to acquire this target, the bidding firm must obtain the approval of the owner/manager and hence must meet his reservation price. If the takeover bid takes the form of a tender offer, the necessary condition for a successful bid is that the per share tender offer price be at least:

$$P_T = P_S + \frac{C}{\alpha N}, \tag{1}$$

where,

N = the number of the target shares outstanding,

α = the fraction of the target shares held by the insider/manager.

At this price, the offer will meet the owner/manager's reservation price, $P_S \alpha N + C$. At any tender offer price less than P_T, the offer will fail. Thus to acquire the target via a tender offer will cost the firm at least:

$$P_T N = P_S N + \frac{C}{\alpha}. \tag{2}$$

At the per share tender offer price of P_T, the "outside" shareholders earn essentially a "surplus" of $\frac{C}{\alpha N}$ for each share they hold (see equation (1)). Had the bidding firm been a perfect price discriminating monopsonist, the acquisition would have cost only $P_S N + C$, which is less than the $P_T N$.

The public nature of a tender offer requires that all target shares receive the same offer price. Thus in meeting the reservation price of the target

managers through a tender offer, bidding firms are forced to pay the outside shareholders of the target more than their reservation price. One way in which the bidding firm can avoid paying this "surplus" to the outside stockholders while still acquiring the target is to approach the target management with a merger proposal.

The private nature of merger negotiations makes it possible for the managers of both firms to reach an agreement in which the bidding firm can separate the reservation price of the target managers, C, from the per share reservation price of the target stockholders, P_S. For example, bidding firms can pay target managers their reservation price by assuring them a position in the post-acquisition firm at a supra competitive wage, which may take the form of either pecuniary or nonpecuniary benefits. Thus, a merger agreement allows the bidding firm to pay target managers C through a post-acquisition labor contract and target stockholders P_SN. Consequently, the cost of acquiring the target via a merger proposal, $P_SN + C$, is less than the cost of the acquisition via a tender offer, P_TN, if the owner/manager does not own one hundred percent of the target shares (i.e., $\alpha < 1$). Therefore, there is a natural tendency for a takeover attempt to take the form of a merger proposal if the target management controls sufficient shares to determine the outcome of the acquisition attempt.

If the target management does not control sufficient shares to determine the outcome of an acquisition bid, the bidding firm will have a tendency to choose a tender offer over a merger negotiation. Admittedly, the target management with no controlling interest will have a relatively low reservation price for control. However, the bidding firm has no incentive to pay this reservation price, no matter how small it is. A public tender offer at a per share price of P_S will enable the bidder to acquire the target without paying the reservation price for control.[2)]

To examine the empirical relation between the ownership structure of the target and the choice of takeover mechanism, we have collected from annual proxy statements the holdings of the officers, directors, and beneficial owners of more than five percent of the target firms just prior to the announcement of acquisition bids. The sample consists of 192 targets of merger proposals and 112 targets of interfirm tender offers during the period 1969 through 1980. As expected, the average fraction of target shares controlled by insiders in the merger proposal sample (19.8%) is

2) The bidding firm would be indifferent to the choice of takeover mechanism if the market for managerial labor were frictionless and there were no means by which the target management could impose costs to the bidder by resisting the bid. Under these conditions, the reservation price for control would be zero.

significantly higher than the average fraction in the tender offer sample (9.2%).

In sum, we conclude that the ownership structure of the target determines the choice of takeover mechanism. It is cost effective to negotiate a merger if the target management holds controlling ownership interest; otherwise, a public tender offer is more cost effective. Thus, we attribute the emergence of tender offers in the U.S. during the sixties to the change in the corporate ownership structure that had resulted in the prevalence of large, diffusely held open corporations by the fifties. If Korean corporations make the predicted transformation from closely held closed corporations to diffusely held open corporations, interfirm tender offers will emerge as a viable and efficacious mechanism to acquire corporate control in Korea.

IV. Regulation of Interfirm Tender Offers

Ever since the interfirm tender offer became a popular takeover mechanism in the U.S., it has been alleged that bidding firms used "unfair and coercive" practices to acquire their targets via this method. Allegations were often made that corporate raiders used unregulated takeovers to gain control of targets with secretive, swift tender offers, which they then used to bleed the targets of their valuable resources. Most notable of these practices was the so-called Saturday Night Special: offers that were announced on Friday and executed the following Monday. These offers were usually affected on a first come, first serve basis and often involved bids made on behalf of "unnamed parties." Testimony before the U.S. Senate hearings on the Williams Bill in 1968 argued that such offers did not give target stockholders sufficient time or information to make a rational tendering decision, and as a result, many well-managed firms were taken over and subsequently pillaged by corporate "pirates disguised as honorable businessmen."

In July of 1968, the U.S. Congress enacted into law the Williams Bill and subsequently amended the Act in 1970, and in doing so specifically brought interfirm *cash* tender offers within the purview of the Securities and Exchange Commission.[3] Many states, beginning in 1969, also enacted "anti-takeover" status, which are more restrictive than the federal code.

Provisions of the Williams Amendment require bidding firms to provide

3) Stock tender offers are regulated under the original Securities and Exchange Act of 1933, because the transaction typically involves the issuance of new stock.

detailed information about how the tender offer will be financed and what changes in the operations of the target will be made if the offer is successful. The regulations also specify a minimum number of days that a tender offer must remain open and a minimum number of days before the target shares can be purchased.[4] It was reasoned that disclosure provisions coupled with greater time for deliberation allow target shareholders to make more rational decisions.

Under the Williams Amendment, target stockholders who have tendered their shares to one bidding firm are allowed to withdraw their shares if a higher valued offer is made by another firm before the required number of days for the initial offer has elapsed. Furthermore, if an outstanding offer is revised upward, then all target stockholders, even those who tendered their shares at the previous terms, must receive the higher price. Finally, the regulations mandate a procedure for effecting oversubscribed offers. Prior to 1968 bidding firms had the option of effecting oversubscribed offers on a first come, first served basis or accepting shares on a pro rata basis from a pool of tendered shares accumulated over a prespecified time period. The Williams Amendment outlaws first come, first served offers and requires that all oversubscribed offers be effected on a pro rata basis.

Similar regulations governing corporate takeovers were also enacted in Korea by the 1976 Amendments to the Securities and Exchange Act, which were subsequently amended in 1982. Although they seem to borrow heavily from the Williams Amendment, the Korean regulations are somewhat less specific and hence less stringent than those in the U.S.[5]

The issue of utmost concern to regulators in both Korea and the U.S. seems to be the protection of target shareholders from a "corporate raider," a company seeking a controlling interest in another company in order to expropriate the wealth of the remaining "minority" stockholders. It has been alleged that in the absence of regulations, a successful "raider" could extract the wealth of the remaining minority target shareholders by forcing the acquired firm to buy products from the "raiding" firm at above market prices or sell factors at below market prices. In the extreme, a successful "raider" could liquidate the acquired firm without properly compensating the minority target shareholders.

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4) The Williams Amendment of 1968 specified that traget shareholders could withdraw their shares up to 7 calender days after the offer, which was subsequently extended to 15 business days during the amendment in 1970. In 1978, the regulation further specified a "cooling" period of 20 business days (30 calender days); that is, all offers must remain open for at least 20 business days.

5) See Shin (1983) for further discussion on the regulations governing interfirm tender offers in Korea.

The "raiding hypothesis" would not be valid if target shareholders can price-protect themselves when they make tendering decisions. That is, if the target shareholders can collude against a raider they would not tender their shares unless the raider fully compensates *ex-ante* for the expected future welath expropriation. The *ex-ante* compensation will take the form of a higher front-end offer price; thus, the raider must pay upfront for whatever wealth it can extract after the acquisition.

Several legal scholars, however, have argued that the diffuse ownership of target firms makes it difficult for the target shareholders to collude in making their tendering decisions.[6] The inability to collude puts them in a situation similar to the classic prisoner's dilemma of game theory; that is, target stockholders may be led by motives of self-interest to take actions which they would not have taken collectively. Thus, these authors, most notably Lowenstein (1983), have called for more regulations to bring "fairness" to the tender offer process in the U.S. Similarly, Shin (1983) has called for more regulations of the Korean tender offer process. In the U.S., these arguments have led to a bill which is now before Congress that would outlaw two-part tender offers.[7]

To an economist, these arguments by the legal scholars are difficult to follow, mainly because they do not specify the economic process by which the "raiding" can be accomplished against the will of wealth-maximizing target shareholders. They ignore rationality of the target shareholders, and thus, it is difficult to analyze the economic implications of the proposed regulations. The possibility of corporate raiding, the basis of the legal scholars' arguments, may not even exist if it is put under the scrutiny of a rigorous economic analysis.

V. Corporate Raiding and Competition Among Bidding Firms

In another study (1984b) I recently completed with Bradley, we develop a formal model of the tender offer process that is consistent with existing legal and institutional constraints in the U.S. The model provides a formal definition of the prisoner's dilemma that target shareholders may face in the absence of competition among bidders. More important, the model demonstrates how competition among bidding firms prevents corporate

6) The legal scholars include Easterbrook and Fischel (1981), Gilson (1981), Bebchuk (1982), and Lowenstein (1983).

7) In two-part tender offers, the bidding firm offers a "front-end" offer price for a fraction of shares outstanding (typically, slightly over fifty percent) and specifies the "back-end" offer price for the remaining shares. To induce target shareholders to tender their shares, the bidding firm always offers a higher front-end price than back-end price.

raiders from exploiting the apparent prisoner's dilemma.

V.A. The Raiding Hypothesis

To demonstrate how the atomistic nature of target shareholders and their inability to collude may create a prisoner's dilemma, we assume that target shareholders are wealth-maximizing price-takers and incur zero transaction costs in tendering shares. We also assume that the bidding firm seeks N_S of N_O target shares outstanding with a per share tender offer price of P_T. If the number of shares tendered (N_T) is less than the number of shares sought (N_S), the offer will expire without the bidding firm purchasing any target shares and the market price of the target shares will return to its original pre-offer level, P_O.[8]

If N_T is greater than or equal to N_S, the offer is successful and the bidding firm will purchase N_S shares at P_T. The remaining shares, N_O-N_S, will be held by the target shareholders. We denote the expected post-execution market price per share of the unpurchased shares as P_E.[9] Finally, if the offer is over-subscribed ($N_T > N_S$) the target shareholders who tendered their shares will have their shares purchased by the bidding firm on a pro rata basis.

While the tender offer is outstanding, the per share value of the target depends on (1) whether the offer is successful and (2) whether or not a target shareholder tenders his shares at P_T. Specifically, if a target shareholder tenders his shares, the per share value is:

$$\tilde{V}_T = \begin{cases} \frac{N_S}{N_T} \cdot P_T + (1 - \frac{N_S}{N_T}) P_E & \text{if } N_T \geq N_S \text{ (Successful offer)} \\ P_O & \text{if } N_T < N_S \text{. (Unsuccessful offer).} \end{cases} \quad (3)$$

8) This assumption is consistent with what we report in a recently published paper (1983) I coauthored with Bradley and Desai. In that study we find that the share prices of firms that are targets of unsuccessful tender offers return to their pre-offer level if they are not subsequently taken over within five years of the initial, unsuccessful offer.

9) The operational meaning of P_E depends on the terms specified in the formal tender offer. If the offer is a two-part offer, P_E is specified by the offer and is commonly known as the "back-end" of the offer; in such offers, P_T is referred to as the "front-end" of the offer. If the tender offer is not a two-part offer, P_E is implicit in the terms of the offer in that it reflects the expected per share value of the target resources under the control of the managers of the bidding firm. P_E will be higher the greater the efficiencies created by the combination and lower the more the bidding firm "charges" the target for the value-creating innovations. The successful bidding firm can extract these charges from the target by requiring it to buy (sell) products (factors) at above (below) market prices.

And if he does not tender his shares, the per share value is:

$$\tilde{V}_N = \begin{cases} P_E & \text{if } N_T \geq N_S \text{ (Successful offer)} \\ P_O & \text{if } N_T < N_S. \text{ (Unsuccessful offer).} \end{cases} \quad (4)$$

Taking the difference between $\tilde{V}_T$ and $\tilde{V}_N$ in equations (3) and (4) yields:

$$\tilde{V}_T - \tilde{V}_N = \begin{cases} \frac{N_S}{N_T}(P_T - P_E) & \text{if } N_T \geq N_S \text{ (Successful offer)} \\ O & \text{if } N_T < N_S. \text{ (Unsuccessful offer).} \end{cases} \quad (5)$$

Equation (5) shows that if P_T is greater than P_E, $\tilde{V}_T$ stochastically dominates $\tilde{V}_N$: the wealth position of the tendering target shareholders is greater than that of the nontendering shareholders if the offer is successful but cannot be less if the offer is unsuccessful. Thus, given that $P_T$is greater than P_E, the optimal decision for all target shareholders is to tender. This is true regardless of whether or not target shareholders are made better off by the tender offer. Even when the target shareholders know that they will suffer a wealth loss if their collective decisions lead to a successful offer, they still find it in their self-interest to tender their shares.

The prisoner's dilemma faced by target stockholders provides the theoretical foundation for the corporate raiding hypothesis. To illustrate how a corporate raider might exploit the dilemma and seize control of the target resources for less than their market value, consider the following example: An investor owns 2 shares of a firm with P_O = \$5 per share; a bidder makes an offer to buy 50.001% of the firm's outstanding shares for \$5 per share and announces that it plans to use this majority position to "raid" all of the assets of the tgarget, i.e., P_E = \$0. Clearly, the target shareholder will be better off if the bid fails. However, he will find it in his self-interest to tender his shares, because the expected pay-off from tendering his shares, \$10 p(u) + \$5 p(s), is strictly greater than the expected pay-off from holding on to them, \$10 p(u) + \$0 p(s), where p(u) is his subjective probability that the offer will be unsuccessful and p(s) is the probability that the offer will be successful. In other words, if the offer is unsuccessful, his wealth will be unaffected whether or not he tenders his shares. However, if the offer is successful, he will suffer a wealth loss but it will be greater if he does not tender his shares. Consequently, he will tender his shares to minimize his expected loss. Thus, as long as the majority of target shareholders behave as price-takers, bidding firms will be able to coerce target stockholders into relinquishing their firm for something less than its full market value by simply setting $P_T$greater than P_E.

V.B. Competition Among Bidding Firms

The notion that one firm can acquire control of another for less than its market value implies that there will be no stable equilibrium in the stock market. In this section we investigate how competition among bidders can restore a competitive equilibrium, in which acquiring firms must pay at least the full pre-offer market value for control of the target resources.

To illustrate the process of competition, we add a second bidding firm to the numerical example that was used to illustrate corporate raiding. The second bidder is a "white knight": it also makes an offer to buy 50.001% of the target but with P_T = \$10 and P_E = \$7.5. Collectively, the target shareholders will prefer this "white knight" to either the raider with P_T = \$5 and P_E = \$0 or the current management which, by assumption, has an implicit tender offer price of $P_T = P_E = P_O$ = \$5. However, we argue that as long as the majority of the target stockholders behave as price-takers and the white knight does not change its bidding strategy, there is no assurance that the white knight will win the contest.

The assumption of atomistic, pricing-taking behavior specifies nothing about how individual target shareholders form their expectations about other target shareholders' tendering decisions. Consequently, one might as well assume that each target shareholder believes that all three contestants have an equal probability of winning, i.e., 1/3. In this case, the self-interest of target shareholders will dictate that they tender their shares to the raider, not to the white knight. For the target shareholder who has two shares, the expected pay-off from tendering his shares to the raider is (\$5 + \$0) p(r) + (\$7.5x2) p(w) + (\$5x2) p(u) = \$10, where p(r) and p(w) are the probability that the raider and the white knight will win the contest, respectively, and p(u) is the probability that both offers will be unsuccessful.[10] This expected pay-off of \$10 is greater than either the expected pay-off from tendering to the white knight, (\$0x2) p(r) + (\$10 + \$7.5) p(w) + (\$5x2) p(u) = \$9.16, or the expected pay-off from not tendering to either bidders (i.e., tendering to the target management), (\$0x2) p(r) + (\$7.5x2) p(w) + (\$5x2) p(u) = \$8.33.

The intuition behind the above result is that the target shareholder will maximize his expected wealth by tendering his shares to the bidding firm which will impose the largest penalty for not tendering his shares to it in the event it wins the contest. The penalty that will be imposed by each bidder equals the spread between its tender offer price and the expected post-execution price, $P_T - P_E$. Thus, the target shareholder will tender his shares

10) By assumption, P(r) = p(w) = p(u) = 1/3.

to the firm that offers the largest spread between P_T and P_E. In the example, the raider offers the largest spread between P_T and P_E ($5), even though the per share value of its offer is the lowest.

Given the above decision rule by the target shareholder, the optimal bidding strategy for all bidding firms is to minimize P_E so as to maximize the spread between their P_T and P_E. If there were no constraints on P_E, no value-maximizing bidding firm would offer a P_E greater than zero. Thus, we define $\underline{P_E}$ as the minimum P_E that is practical given regulations governing a majority stockholder's fiduciary responsibility and the anti-fraud security regulation.[11]

If we assume that the minimum permissible $\underline{P_E}$ is target firm specific,[12] all bidders will offer the same $\underline{P_E}$. This means that bidders will compete only with their P_T Thus, in the numerical example above, it is not optimal for the white knight to offer P_T = $10 and P_E = $7.5. If the minimum permissible P_E is $0, it only needs to offer P_T slightly above $5 and P_E = $0 to outbid the raider. However, to win the takeover contest, it must offer more, because other potential raiders will enter the auction if there is a profitable raiding opportunity. The profitable raiding opportunity will disappear at P_T = $10 if $\underline{P_E}$ = $0. If $\underline{P_E}$ is greater than $0 but less than P_O, say $3, the winning combination must be at least P_T = $7 and P_E = $3. At these offer prices, the target shareholders are paid exactly the pre-offer market value of their shares.

If P_E is equal to or greater than P_O, the winning combination of P_T and P_E must have a value greater than P_O;[13] consequently, the target shareholders wil be paid a premium for their shares and will experience a wealth gain as a result of the acquisition. Thus, if regulations ensure that P_E be at least P_O, no corporate raiding will ever be possible even when there is no competition among bidders. The antifraud security regulations and the regulations governing a majority stockholder's fiduciary responsibility in both Korea and the U.S. seem to provide sufficient protection for target shareholders to ensure an expected post-execution price (P_E) that is at least equal to the pre-tender offer price (P_O).

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11) This minimum P_E can be considered as the post-execution price that minimizes the expected legal and settlement costs, arising from the possibility that the holders of unpurchased shares may sue the bidding firm at some future time for violating the fiduciary responsibility of a majority stockholder. The recent court battle between the minority stockholders of Marathon Oil and U.S. Steel over an "equitable" back-end price (P_E) provides a real-world example of such a possibiliby.

12) $\underline{P_E}$ may vary among the bidders if some bidders have comparative advantages in expropriating the target shareholder wealth subsequent to a successful acquisition.

13) One of the necessary conditions for a successful tender offer is $P_T > P_E$; otherwise, all the owners will hold on to their shares.

In the presence of competition among bidders, the actual P_T that the winning bidder will pay to the target shareholders depends on the highest P_T that the second-best bidder can offer, $\overline{P}_T$. Competition among bidders will drive up the winning bidder's P_T until it is at least equal to $\overline{P}_T$. The $\overline{P}_T$ should reflect the synergistic gains that can be obtained in the second-best allocation of the target resources. Thus, if the second-best bidder can effect synergistic gains of \$2 per target shares purchased and if P_E is \$3, the winning combination must be at least P_T = \$9 and P_E = \$3. At these offer prices, the target shareholders will experience at least a 20% "windfall" gain (\$12/\$10) as a result of the acquisition. Thus, the competitive equilibrium among bidders ensures that the target shareholders can only be made better off by successful tender offers.

VI. The Evidence on Tender Offers

The "competitive equilibrium" hypothesis developed in the previous section contradicts the "raiding" hypothesis: The raiding hypothesis predicts a wealth loss for the shareholders of the acquired firm, whereas the competitive equilibrium hypothesis predicts either no effect or a wealth gain. These implications are testable by observing the stock market's reaction to announcements of takeover bids. Numerous studies have shown that the American stock market is highly efficient. Furthermore, stock markets in both Korea and the U.S. are forward-looking in that the current market value of a firm is the present value of its future cash flows. Thus, the change in a firm's market value at the announcement of a tender offer reflects the unbiased estimate of change that will take place in its future cash flows due to the tender offer.

Several studies estimate the effects of tender offers on stock prices of bidding and target firms around announcements of tender offers. These studies use the "event" methodology which measures abnormal returns to stockholders by taking the difference between actual and expected normal stock returns. The abnormal returns around the offer announcements provide a measure of the economic effects of tender offers. In this section I review the evidence provided by these "event" studies.

VI.A. Target Stockholders

Dodd and Ruback (1977) analyze 172 New York Stock Exchange firms that were targets of tender offers during the period 1958 through 1976. Of the 172 target samples, 136 were successful and the remaining 36 were un-

successful. Their data show that during the month of and month following announcement, the stockholders of the successful targets earned 21% abnormal return and the stockholders of the unsuccessful targets earned 16% abnormal returns. Kummer and Hoffmeister (1978) examine 88 New York Stock Exchange firms that were targets of tender offers during the period 1956 through 1976. For the month of offer announcement, they report 17% abnormal returns for 50 successful targets and 21% abnormal returns for the remaining 38 unsuccessful targets. Bradley (1980) examines a larger sample of 258 New York and American Stock Exchange firms that were targets of tender offers during the period 1962 through 1977. He reports 32% abnormal returns for successful targets and 47% abnormal returns for unsuccessful targets during the two-month period centered around the day of announcement. These collective findings provide overwhelming evidence that target shareholders are made better off by tender offers. The evidence is not consistent with the raiding hypothesis.

The evidence also suggests that the positive revaluation of target shares does not depend on whether or not tender offers are successful. Further, both Dodd-Ruback and Bradley report that stock prices of targets of unsuccessful tender offers remain substantially above their pre-offer level after the offer fails. To explain this finding, they argue that it is the announcement of a tender offer per se that precipitates the positive revaluation of the target shares, not necessarily the transfer of control of the target resources that accompanies the execution of a successful offer. They conjecture that announcements of tender offers either prompt the market to revalue previously "undervalued" target shares or induce the current target management to implement a higher-valued operating strategy *on its own*.

In a recently published paper (1983) I coauthored with Bradley and Desai, we show that the above conjectures are false. We reexamine the evidence concerning unsuccessful targets by separating a sample of 112 targets of unsuccessful tender offers during the period 1963 through 1980 into two groups: 86 targets that became the targets of a subsequent successful bid and 26 targets that did not. We find that target shareholders of both subsamples realize significantly positive abnormal returns during the month of announcement (42% and 29% for the first and second subsample, respectively). However, we find that the upward revaluation is due primarily to the anticipation of a future successful acquisition bid. For the shareholders of the target firms that are not subsequently taken over, the entire abnormal returns (29%) dissipate within two years of the unsuccessful bid. The shareholders of those targets that are subsequently taken over experience an additional positive abnormal return (28%) when they receive a higher valued bid. These results suggest that a permanent

positive revaluation of the target shares requires a successful acquisition of the control of the target resources by the acquiring firm.

VI.B. Acquiring Stockholders

In contrast to the large upward revaluation in the shares of successfully acquired targets, the effects of successful tender offers on the acquiring firm's are rather modest. The reported average abnormal return to the stockholders of acquiring firms during the month of announcement are: 3% (Dodd and Ruback), 5% (Kummer and Hoffmeister), and 3.5% (Bradley). However, a simple comparison between the mean abnormal rates of return to the target and acquiring stockholders could be misleading because of the size disparity between the target and acquiring firms. The average market value of acquiring firms involved in 183 successful tender offers during 1963 through 1980 is about eight times the average market value of their targets. Consequently, even if the dollar gains from an acquisition were evenly split between the two stockholder groups, the percentage returns to the acquiring firm's stockholders would be lower because of the larger capital base. Thus, the pronounced difference in measured rates of return could conceal a fairly equal division of the dollar gains from an acquisition.

In another paper (1984) I recently coauthored with Bradley and Desai, we estimate the dollar gains to the stockholders of the target and acquiring firms. The dollar gains are defined as the product of the market value of the firm one month before the announcement of the first tender offer and the abnormal returns to the stockholders from one week before the announcement of the first bid through one week after the announcement of the last successful bid. Our sample consists of 183 successful tender offers during the period 1963 through 1980. We find that the average dollar gains are $6 million and $26 million for the acquiring and acquired firms, respectively. Thus, not only is the average rate of return to targets greater than the average rate of return to acquiring firms, but the dollar gain to the tgarget is greater as well.

VI.C. Synergistic Gains from Corporate Acquisition

The evidence that the stockholders of both target and acquiring firms gain from successful tender offers suggests that tender offers are attempts by bidding firms to gain control of the target resources and effect a higher valued allocation of the combined resources of the two firms. The higher

valued allocation may result from more efficient management, economies of scale, improved production techniques, the combination of complementary resources, the redeployment of assets to more profitable uses, the exploitation of market power, or any number of value-creating mechanisms that fall under the general rubric of corporate synergies.

An alternative hypothesis that explains the gains to the stockholders is that the gains are made at the expense of bondholders and creditors. Jensen and Meckling (1976) argue that there is an incentive for the stockholders of leveraged firms to expropriate the bondholders' and creditors wealth by undertaking investment projects that increase the firm's riskiness. Since a merger is a corporate investment, according to Jensen and Meckling there is an incentive for the stockholders to acquire firms which increase the variability of the firm's cash flow. That is, the stockholders may earn positive abnormal returns (even if there is no real synergy) at the expense of bondholders by increasing the firm's risk through merger. The bondholders lose because of the increase in the default risk of the existing bonds. The positive abnormal returns to stockholders would, in this case, represent a wealth transfer from bondholders.

In a study (1982) I published with Paul Asquith, we investigate the "wealth transfer" hypothesis by examining the effects of merger announcements on both the stockholders and bondholders of both acquiring and acquired firms. The sample comprises fifty firms involved in mergers that were classified as "conglomerate" by the Federal Trade Commission during the period 1960 through 1978. Consistent with the evidence on tender offers, the average abnormal returns to the stockholders are 3.4% for acquiring firms (during the month of and month following merger announcements) and 20% for acquired firms (during the month before and month of merger announcements). The average abnormal returns to the bondholders of acquiring and acquired firms are both one percent. These positive returns to bondholders are confirmed in a more recent study of pure exchange mergers by Eger (1983): the study reports abnormal returns of about one percent for 33 bidding firms' bonds and about three percent for 6 target firms' bonds. These positive gains to bondholders are not consistent with the "wealth transfer" hypothesis.

The evidence on bondholders of merging firms are consistent with the "diversification effect" hypothesis that was developed and tested in an earlier study (1977) I published with John McConnell. We argue that mergers reduce the risk of default of the merging firms by combining two separate cash flows that are less than perfectly correlated. A reduction in the default risk in turn increases the market value of bonds; hence, we should observe significant positive abnormal returns to the bondholders of

merging firms.

In the Kim and McConnell study, we find that merged firms make greater use of financial leverage after the merger than the combination of independent firms did before.[14] In the absence of a "diversification effect" we would expect this increase in financial leverage to increase default risk of the merging firms and hence cause a wealth loss to the bondholders. The observed positive abnormal gains to the bondholders, albeit small, do suggest that a "diversification effect" takes place during the process of corporate acquisition.

In sum, the evidence on stockholders and bondholders of both acquiring and acquired firms suggests that corporate acquisitions are value generating events and the sources of the new value are corporate synergies. To provide more direct evidence on the synergistic gains, in the second Bradley, Desai, and Kim study (1984) we measure the total dollar synergistic gains from successful tender offers. The total dollar synergy is defined as the sum of the dollar gains to the stockholders of acquiring and acquired firms. For the sample of 183 acquisitions during the period 1963 through 1980, the average total dollar synergistic gain is $32 million. In relative terms, the successful tender offers have on average resulted in an 8% increase in the combined value of the two firms.

VI. D. Effects of Regulation

The effects of regulation can be analyzed by re-examining the evidence on tender offers by separating the sample according to whether the offers are effected before or after the federal and state regulations that were enacted during the 1968 through 1970 period. Jarrell and Bradley (1980) examine 47 tender offers before the Williams Amendment. They report average abnormal returns of 20% for the target shareholders and 10% for the shareholders of acquiring firms. Clearly, there is no evidence of raiding prior to the regulation. They also show that the regulation has had a significant impact on the division of gains between the stockholders of acquiring and acquired firms. After the regulation, the average abnormal return to target shareholders has increased from 20% to 33%, while the average abnormal return to acquiring shareholders has decreased from 10% to 5%.

The favorable effect that the regulation has had on target shareholders

14) This conclusion is based on examination of three different measures of financial leverage for a sample of 31 major, nonrepetitive mergers.

can be attributed to the "disclosure, delay, and withdrawal" provisions in the federal and state regulations. The disclosure and delay requirements increase competition, and the withdrawal privilege allows target stockholders to recontract and tender their shares to the firm that makes the highest valued offer. The disclosure requirements force bidding firms to reveal valuable information about the target company and the planned use of its resources. This disclosure of information, together with the delay requirement, enables rival potential bidding firms to discover this information on their own and permits further production of information that may generate higher bids. With the withdrawal privilege that allows target shareholders to take the full advantage of competition among bidders, increased competition on the bidding side should increase the returns to target firms and decrease the returns to acquiring firms.

In the second Bradley, Desai, and Kim study (1984), we show that the Williams Amendment in July 1968 is associated with an increase in competition among bidders. Our sample shows that the percentage of tender offers (for firms listed on the New York and American Stock Exchange) which involved more than one bidding firm, "multiple-bidder contests," increase from 17% before July 1968 to 30% thereafter. We also find that this increased competition has increased returns to target stockholders and decreased returns to acquiring stockholders. The average abnormal returns to target stockholders are 27% in tender offers which involved only one bidder, single-bidder offers, and 43% in multiple-bidder contests. For acquiring stockholders, the average abnormal returns are 3% in single-bidder offers and 0.3% in multiple-bidder contests.

To examine the simultaneous effects of the regulation and competition among bidders, we also perform weighted least squares regressions on the abnormal returns with three independent variables.[15] The first two independent variables are dummy variables for competition and regulation, and the third independent variable is the fraction of target shares purchased. The coefficients on both dummy variables are significant and show predicted signs: the marginal impact of multiple-bidder contests is to increase returns to target shareholders by 14% and decrease returns to acquiring shareholders by 1.9%; the marginal impact of the regulation is also to increase returns to target shareholders by 11% and decrease returns to acquiring shareholders by 2.3%. This significant marginal impact of the regulation suggests that the federal and state regulations gave greater

15) The abnormal returns, the dependent variable in the regression, are cumulated from one week before the announcement of the first bid through one week after the announcement of the last successful bid.

bargaining power to target shareholders in addition to providing the benefits of increased competition on the bidding side.

Finally, we examine the effects of the regulation and competition on the bidding side on the synergistic gains. The results show that the regulation has no noticeable impact on the total synergy created. Apparently, the effect of regulation is a zero-sum game: what target stockholders gain from government regulation the stockholders of acquiring firms lose. The effect of competition, on the other hand, is not a zero-sum game: in relative terms, the synergistic gains increase from 7% in single-bidder offers to 10% in multiple-bidder contests; in absolute dollar terms, the synergistic gains increase from $25 million in single-bidder offers to $51 million in multiple bidder contests. These results suggest that competition among bidding firms generates further production of information which leads to a higher valued allocation of the combined resources.

VII. Summary and Conclusion

In this paper I predict that if the current pace of economic growth continues, the Korean corporate sector will undergo an important change in ownership structure, and as a consequence, will experience unprecedented takeover activities. To help acquaint students and regulators of the Korean stock market with the interfirm tender offer process before its migration to Korea, I analyze what has caused the advent of interfirm tender offers in the U.S. and describe how the regulations governing interfirm tender offers have evolved over time. The most recent proposal for regulation of tender offers is a bill which is now before the United States Congress that would outlaw two-part tender offers.

The issue of utmost concern to regulators and legal scholars of tender offers is the protection of target shareholders from a "corporate raider," a company seeking a controlling interest in another company in order to expropriate the wealth of the remaining "minority" stockholders. In this paper I present a model that provides the theoretical basis for the raiding hypothesis: the diffuse ownership structure of target firms makes it difficult for the target shareholders to collude in making their tendering decisions, and the inability to collude puts them in a situation similar to the classic "prisoner's dilemma" of game theory. That is, atomistic price-taking target shareholders may be led by motives of self-interest to take actions that they would not have taken collectively, even if their individual actions lead to a wealth loss for the target shareholders as a whole.

More important, the model shows that the raiding hypothesis is not com-

patible with a competitive stock market. In a competitive stock market bidding firms face competition from potential rival bidding firms and hence must devise bidding strategies to compete effectively. The model shows the characteristics of an optimal bidding strategy and demonstrates that when bidding firms follow the optimal strategy, competition among them will solve the apparent prisoner's dilemma for target shareholders. In the ensuing equilibrium, the acquiring firm pays at least the full pre-offer market value for control of the target resources, and more if a rival bidding firm can generate synergistic gains. This "competitive equilibrium hypothesis" implies that target shareholders can only be made better off by an acquisition via tender offers.

The opposing predictions of the two competing hypotheses are then tested by reviewing the empirical evidence on the effect of tender offers on the market value of the bidding and target firms. The review draws heavily from several of my own studies on tender offers and corporate mergers. The evidence indicates that target shareholders experience approximately 20% to 40% positive revaluation of their shares in the wake of a tender offer; furthermore, this positive revaluation will remain permanent only if the acquisition attempt is successful.

The evidence indicates that the shareholders of acquiring firms also gain from the acquisitions. However, the gains to target shareholders are much greater than those to acquiring shareholders. This is true whether we measure the gains in relative percentage terms or in absolute dollar terms. These findings are inconsistent with the raiding hypothesis and support the competitive equilibrium hypothesis.

Studies on the effect of corporate acquisition on the market value of corporate bonds indicate that bondholders of the combining firms also experience a positive, albeit small, revaluation of their holdings. This evidence, together with the evidence on stockholders, indicates that tender offers are attempts by bidding firms to gain control of the target resources and effect a higher valued allocation of the combined resources of the two firms. This hgher valued allocation is made possible by the synergistic gains created by the combination. A recent estimate of the total dollar synergistic gains shows an average of $32 million for successful tender offers effected during the 1963 to 1980 period. In relative terms, the successful acquisitions have resulted in an 8% increase in the combined value of the two firms.

Finally, empirical studies which have examined the effect of regulation show that the gains to target shareholders were substantially positive even before the Williams Amendment in 1968. The enactment of the Williams Bill in 1968 has increased the returns to target shareholders and decreased

the returns to acquiring shareholders. Further, there is evidence that the regulation has increased competition among the bidders, and the increased competition in turn has increased the total synergistic gains from acquisition. With the disclosure and delay requirements in the regulation, competition among bidding firms apparently generates further production of information which leads to a higher valued allocation of the combined resources.

When we examine the simultaneous effects of regulation and competition among bidding firms, regulation has zero marginal effect on the synergistic gains. That is, the marginal effect of regulation is a zero-sum game: what target stockholders gain from government regulation the stockholders of acquiring firms lose. It appears that the withdrawal privilege and outlawing the first come, first served rule, in favor of the prorationing rule for oversubscribed tender offers, have given target firms greater bargaining power.

In conclusion, there is no evidence of "raiding" even when cash tender offers were unregulated. Regulation has given target firms greater bargaining power; consequently, target shareholders have captured most of the synergistic gains after the Williams Amendment in 1968. To the extent that government regulation encourages competition among bidding firms and promotes further production of information which leads to a higher valued allocation of the combined resources, the regulation may be beneficial.[16] However, regulation per se creates no new wealth: it merely stacks the deck in favor of stockholders of target companies. If the purpose of the regulation is to protect target shareholders both from their own ignorance and from the abuses of unscrupulous corporate "raiders," the regulation is unnecessary. The existing antifraud security regulations and the regulations governing a majority stockholder's fiduciary responsibility in both Korea and the U.S. provide sufficient protection for the investing public.

16) If the synergistic gains are results of attaining a monopoly power through corporate combination, the increase in the firms' market values does not represent new wealth; rather, it reflects the welfare loss to consumers.

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