

Mergers¹

Types: Horizontal, Vertical, Conglomerate

- Largely a phenomenon of antitrust activity.
- Suggests that there is some value in merging over and above monopolization because firms seem intent on doing it in whatever way is allowed by regulators.

Why Merge:

1) Economies of Scale and Scope

2) Transactions Costs:

- a) Coasian information costs. Examples include difficulty in defining revenue shares ex ante: wireless telecomm and roaming charges.
- b) Opportunistic behavior (Klein, Crawford, and Alchian: merger of GM and Fisher Body)

In either case, the firm acts as an overarching arbitrator of interactions between business units.

1&2 are Efficiency motives

3) Managerial Entrenchment

- a) Free cash flow (Jensen) dissipated on merger instead of paid out to stockholders.
- b) Merger can thwart other takeover attempts; e.g., Time, Inc., merges with Warner Comm in order to stop takeover by Paramount.

4) Hubris (Roll)

3 & 4 are inefficiency motives.

Manne Hypothesis [2]:² Takeovers are a way of sanctioning inefficient management.

Mechanisms for Mergers and Takeovers

A. Merger: May be initiated by bidder or target. May be hostile or friendly. Usually friendly if initiated by target.

Target initiated: target hires investment bank to assess value of firm and find potential bidders. Can solicit bids from many or court a single partner. Typically the field will be narrowed from many to few, say, 5 or 6. Ask for sealed bids. All negotiations are confidential. Target gives much inside information in the final stage before bids are made. After bids are in, target will always ask the high bidder for more money. Sometimes the high bidder pulls out at this stage, but rarely.

Bidder initiated: bidder approaches board of directors with offer to buy the firm. May hold negotiations with target board for some time. May turn hostile at this point; e.g., AT&T acquisition of NCR.

B. Tender Offer:

¹ Read Chapters 1, 2, 6, 7, and 8 in *Takeovers, Restructuring, and Corporate Governance*, Weston, Mitchell, Mulherin, 2004, Prentice Hall.

² Manne Hypothesis [1] is that insider trading is good.

Solicitation by bidder directly to shareholders of target. Won't work if large block of shares is held by insiders, board, and upper management. Solicitation directly to shareholders may or may not be hostile takeover. Definitely hostile if bidder says that it plans to fire management, but degrees of hostility even then.

Tender offers are regulated by Williams Act ('68): requires minimum offer period (20 days, plus 10 more for any additional offers); oversubscribed bids are honored on pro-rata basis. Pre-Williams, T/Os were typically short fuse and first come first served. Created stampede.

Offers can be conditional (50% or more, 70% or more, up to 67%) or unconditional (any and all).

Shareholders send shares to tendering, escrow agent. If deal goes through, shares are purchased as per offer. If deal fails, shares are returned.

C. Toe Holds:

Williams Act also restricted the ability of bidders to gain toe-holds in targets. Before Williams, bidder could buy on open market and have agents buy also under agreement to resell to bidder. Unlimited. After Williams, toe-hold was limited to 10% and now 5% before holdings must be publicly announced.

The rule now is 5%+ must announce trades to SEC; 10%+ must announce intent to buy before order is submitted.

Stock Parking is now illegal.

Merger Returns

TABLE 8.1 Research on the Combined Returns in Mergers and Acquisitions

<i>Research Paper</i>	<i>Time</i>	<i>No of Targets</i>	<i>No. of Bidders</i>	<i>Event Window</i>	<i>Target Return (%)</i>	<i>Bidder Return (%)</i>	<i>Combined Return (%)</i>
Bradley et al. (1988)	1963-1984	236	236	(-5,+5 last bid)	31.77	0.97	7.43
Kaplan and Weisbach (1992)	1971-1982	209	271	(-5,+5 last bid)	26.9	-1.49	3.74
Servaes (1991)	1972-1987	704	384	(-1, resolve)	23.64	-1.07	3.66
Mulherin and Boone (2000)	1990-1999	281	281	(-1, +1)	20.2	-0.37	3.56
Andrade, Mitchell, and Stafford(2001)	1973-1998	3688	3688	(-1, +1)	16	-0.7	1.8

TABLE 8.2 Research on Factors Affecting Returns

<i>Panel A. Method of Payment Research Paper</i>	<i>Time Period</i>	<i>Observations</i>	<i>Event Window</i>	<i>Cash (%)</i>	<i>Mixed (%)</i>	<i>Stock (%)</i>
Huang and Walkling (1987)	1977-1982	169	(-1,0)	29.3	23.3	14.4
Asquith et al. (1990)	1973-1983	80	(-1,0)	27.5	32.2	13.9
Servaes (1991)	1972-1987	688	(-1, resolve)	26.7	21.1	20.5
Andrade, Mitchell, and Stafford (2001)	1973-1988	3,688	(-1, +1) (-20, close)	20.1 27.8	NA NA	13.0 20.8

Panel B. Single Versus Multiple Bidders

<i>Research Paper</i>	<i>Time Period</i>	<i>No. of Obs</i>	<i>Event Window</i>	<i>Single (^10)</i>	<i>Multiple (%)</i>
Bradley et al. (1988)	1963-1984	236	(-20,+1)	23.95	25.98
			(-20,+40)	26.65	46.12
Servaes(1991)	1972-1987	704	(-1, resolve)	20.8	30.5
Schwert (1996)	1975-1991	1,523	(-42,-1) (0,+126)	13.4 8.5	12.7 18.2

TABLE 8.3 Research on Target Stock Return Run-Up

<i>Research Paper</i>	<i>Time Period</i>	<i>Observations (Window)</i>	<i>Run-Up (%)</i>	<i>Announcement Return (%)</i>
Dodd (1980)	1971-1977	151 (-40,-2)	11.2	13
Keown and Pinkerton (1981)	1975-1978	194 (-25,-1)	13.3	12
Dennis and McConnell (1986)	1962-1980	76 (-19,-2)	8.11	8.84
Huang and Walking (1987)	1977-1982	204 (-50,2)	9.1	23.4
Bradley et al. (1988)	1963-1984	236 (-20,-1)	10.07	14.5
Jarrell and Poulsen (1989a)	1981-1985	172 (-20,-1)	11	13.9
Meulbroek (1992)	1974-1988	145 (-20,-1)	13	17.6
Barclay and Warner (1993)	1981-1984	108 (-30,-2)	16.3	15
Schwert (1996)	1975-1991	1,523 (-42,-1)	13.3	10.1
Schwert (2000)	1975-1996	2,296 (-63,-1)	12.4	9.6
		Simple average	11.8	13.8

TABLE 8.4 Takeover Premiums for Targets

<i>Research Paper</i>	<i>Time Period</i>	<i>Observations</i>	<i>Base Price Date</i>	<i>Premium (%)</i>
Bradley (1980)	1962-1977	161	41 days before offer	49
Jarrell, Brickley, and Netter (1988)	1981-1984	225	1 month before offer	53
Jennings and Mazzeo (1993)	1979-1987	647	10 days before offer	23
Cotter and Zenner (1994)	1988-1991	141, initial 141, final	30 days before rumor 30 days before rumor	47 60
Betton and Eckbo (2000)	1971-1990	697, initial, single bid 194, initial, multiple bids	60 days before offer 60 days before offer	51 45

Table 8.5 Research on Factors Affecting Bidder Returns***Panel A. Method of Payment***

Research Paper	Time Period	Observations	Window	Return Cash	Return Mixed	Return Stock
Travlos (1987)	1972-1981	167	(-10,+10)	-0.13	NA	-1.6
Asquith et al. (1990)	1973-1983	186	(-1,0)	0.2	-1.47	-2.4
Servaes (1991)	1972-1987	380	(-1, resolve)	3.44	-3.74	-5.86
Andrade, Mitchell, and Stafford (2001)	1973-1998	3688	(-1, +1) (-20, close)	0.4 -0.2	NA NA	-1.5 -6.3

Panel B. Single Versus Multiple Bidders

Research Paper	Time Period	Window	Returns (%)			
			Single	Multiple	1st Bid Acquirer	Late Bid Acquirer
Bradley et al. (1988)	1963-1984	(-20,+1) (-20,+40)	2.75 2.97	-0.41 -0.21	2	-2.5
Servaes (1991)	1972-1987	(-1, resolve)	-0.35	-2.97		
Schwert (1996)	1975-1991	(-42,+1) (0,+126)	1.9 -0.4	0.2 -3.5		

TABLE 8.6 Research on Long Term Stock Price Performance

Research Paper	Time Period	Obs.	Method	Stock Return(%)
<i>Panel A. Overall Results</i>				
Loughran and Vlijh (1997)	1970-1989	947	5-year EW BHAR	-6.5
Rau and Vermaelen (1998)	1980-1991	2,823	3-year CAR	-4.04
Mitchell and Stafford (2000)	1961-1993	2068	3-year EW BHAR 3-year VW BHAR 3-year EW Calender 3-year VW Calendar	-1 -3.8 -5 -1.4
<i>Panel B. Results Based on Form of Payment</i>				
Loughran and Vlijh (1997)	1970-1989	314 Cash 405 Stock	5-year EW BHAR	18.5 -24.2
Mitchell and Stafford (2000)	1961-1993	1,039 Cash 1,029 Stock	3-year VW Calendar 3-year VW Calendar	3.6 -4.3
<i>Panel C. Results Based on Book-to-Market Ratio</i>				
Rau and Vermaelen (1998)	1980-1991	931 Value 932 Growth	3-year CAR	7.64 -17.3
Mitchell and Stafford (2000)	1961-1993	257 Value 526 Growth	3-year VW Calendar 3-year VW Calendar	1.1 -7.2

The Market for Corporate Control

Tender Offers

Historical Perspective: Tender Offers became popular in the 60s. This was quite possibly due to SEC rules adopted in the 50s that made proxy contests more cumbersome. The rash of tender offers occurred with blinding speed. It was not uncommon for tender offers to be accomplished within a few days. The offer was made, the shares tendered, and the tendered shares accepted. Federal legislation regulating tender offers was passed in 1968 under the title of the Williams Act. One of the principle proscriptions of the law was that tender offers could not be done with short fuses. The law required that any offer to purchase tendered shares must be left open for a minimum of 2 weeks. In addition, the law required that the bidder must state its intention concerning the disposition of the target's assets and its plans for the target's employees. The law also required that in over-subscribed offers the buyer had to pro-rate its purchase across all tendering shareholders. As opposed to first-tendered, first-purchased.

Mechanics: A tender offer is a solicitation directly to the shareholders of a company to purchase their shares at a specific price. The bidder simply publishes ads that make the offer. Shareholders tender or deliver their shares to the investment banking firm that is handling the offer. If the offer is completed, tendering shareholders' shares are purchased by the bidder. The tender price times the number of shares bought from each tendering shareholder plus any excess shares are returned. Tender offers have a cost which involves putting together the financial backing to pull off the tender offer.

Tender offers come in various forms: Any-&-All, All-or-None, Up-to-50%, etc. The bidder usually reserves the right to cancel the offer if some minimum number of shares is not achieved. The form of the offer usually depends on what the bidder is trying to accomplish in the short run. If it is simply trying to get a seat or two on the board, a minority holding of 20% may be sufficient. Complete control may require 100%. Companies desire to take control over other companies due to 1) new technology or information- for example the AT&T acquisition of NCR. 2) It is a good buy 3) management furthering their entrenchment.

Empirical Evidence: Tender offer premiums, that is, the price offered by the bidder in excess of the trading price of the stock before the first announcement of any offer range from 15% to 50% depending on the type of acquisition. It is very rare for stock prices to drop after the announcement of a tender offer. The highest premia come in the cases of contested, complete control battles that are thwarted by a *white knight*. A white knight is a company who agrees to buy another company that is in the process of being taken over hostilely. The management hopes to retain its position when taken over by a white knight whereas they would most likely be thrown out in an hostile takeover. (Why white knights exist is another question.) The lowest premia are paid in clean-ups. (A company has long held 80% ownership in a subsidiary that it is completely taking over.) The stock price appreciation that results from a tender offer only rarely reverses when the offer fails. There are some notable and completely understandable examples, like Time, Inc. when it was being pursued by Paramount, or UAL in Oct. 1989. In the UAL case,

UAL was to be a labor-owned company- the pilots would also be the managers. But the deal fell apart. The possible explanation is the need for strong management to coordinate the activities and implement the policies of the organization. There did not seem to be any set-up that would serve to do the function of monitoring these managers. In the usual case, though, either the firm becomes the object of takeover by other bidders or restructures on its own when the takeover was occasioned by unprofitable business practices. On the other hand, the original tender offer may be driven by new insight into the future profitability of the company. This information is impounded in the stock price as a result of the failed tender offer and there is no price reversal.

Discussion: What is the cause of tender offer premiums? That the price of a security can increase by 50% or more in an instant is a puzzling question and is often cited as an example of market inefficiency and excess volatility. It seems doubtful to many observers that true value of this magnitude can be created in such a short period of time. The shortness of time is not disputable, but is probably not a valid cause for alarm. We know from other examples that the securities market is an institution that specializes in the speedy and accurate assessment of the value of assets. (The Challenger disaster is a case in point.)

What then can explain the increase in value that drives the tender offer premium? Sometimes it must surely be that new technology is discovered. In a recent case, AT&T acquired NCR. The facts of the story seem to be the following. AT&T tried for years to develop a new framework for a computer based management information system. Their attempts were particularly unsuccessful. Apparently, NCR had such a network nearly ready to go. At least, that is what NCR said. Nonetheless, AT&T believed them and believed that integrating such a network with sophisticated communications technology will be a major component of full blown MIS applications. They took a chance, and based on their commitment to their belief, the market responded. The market repriced the assets of NCR and those of AT&T such that the new total was greater than the original sum.

In other cases, technological progress does not seem to be the driving force behind tender offers. Instead, the new value is found in better control of the costs of management. Henry Manne argued that tender offers solve the agency problem in that a company can profit on the bad management of other companies. This occurs if the acquiring company can solve the agency or managerial problems.

Theory of Corporate Control

Tender offers are the last line of defense in the fight against the agency costs that exist because of the separation of ownership and control. Tender offers may occur for reasons other than sanctioning bad management, either by replacement or incentive based redirection, but tender offers clearly have the potential to impose sanctions.

Tender offers are costly and have become more costly as a result of regulation. Even so, their usefulness is in part evidenced by the fact that issues of new securities are increasingly placing up to a third of the voting common stock in the European market where it is unaffected by U.S. securities laws and requirements. These firms recognize that the amount that investors are willing to pay to buy into future cash flows is dependent on the severity of agency costs and that

agency costs are mitigated by the market for corporate control acting through the ability of corporate raiders to quickly and quietly acquire a large block of stock.

On the other hand, government regulation of corporate control is driven by interests in the polity other than corporate shareholders. Workers have only indirect interest in the investment earnings of stockholders. Workers are happy with laws that protect their jobs even if this comes at the expense of lowering the earnings of shareholders. There is not much evidence that takeovers impose large dislocation of employment, but some studies have found some effect especially on pensions and benefits.

There are internal brakes against corporate raiders as well. Corporations voluntarily choose to limit their exposure to the takeover market. They adopt *poison pills*, *golden parachutes*, staggered board of directors, supermajority voting, dual class stocks, cumulative voting, and the like. Poison pills are rules triggered by hostile takeover attempts that allow the board of directors to take actions that make the acquisition less valuable. For instance, the board may be authorized to issue new shares to self-tendering shareholders whenever a tender offer is made by another party. Existing shareholders can only tender to one or the other, that is, either to the company in which case they get multiple shares in return, or to the bidder. The board can choose. If they consider the outsider's bid too low, they can protect the existing, non-outside tendering shareholders by giving them a larger percent of the residual claims. Golden parachutes give top managers a bonus check if the company is taken over. This increases the cost of a takeover and reduces the risk managers face when committed to one company for a long time. Staggered boards make replacing the board more difficult. Only a portion of the board is elected in any year, usually 1/3. Thus it would take three years to replace the board. Supermajority voting requirements cause potential takeover firms to buy more stock in order to be able to change the rules of the target firm. Dual class stocks restructure the stock of the company into two classes. Each has different voting rights. The reason for its existence is to provide insiders with more voting power than their stock ownership warrants. Cumulative voting rights make it possible for a minority group to elect directors even if the majority disapproves. These anti-takeover provisions occasion a modest, negative stock price reaction when they are announced and they are generally approved by a majority of the shareholders even when incumbent management does not hold a controlling share. Hence, there is some evidence that shareholders have an interest in protecting management from takeovers.

Tender offers have always been the center of controversy. Opponents claim that corporate raiders plunder the assets of the company and impose costs on management and labor. On the other side, proponents claim that tender offers are the only way in extreme cases to regain control of the assets of the company. This latter view is called the Manne Hypothesis, named after Henry Manne who first proposed this view in the mid 60s. Manne claimed that tender offers presented a way for managerial reorganization to be profitably exercised from outside the corporate organization. The Manne hypothesis has been hotly debated mostly on its theoretical merits. Is it really possible for outsiders to profit in control battles? If the imagination of the acquiring company is to see agency cost that can be cured there is no reason to think that they have a unique skill in curing that cost. We imagine a bidding company has to receive normal returns on its bidding activities. The net of a bunch of acquisitions might be zero or at least a very small positive number. Some authors have claimed that it is impossible for the bidding firm intending

to cure an inefficient management problem to profit on the purchase and sale of stock because of a holdout problem among the shareholders of the inefficiently managed company. They all want to retain some interest in the company knowing that it will be more profitable when the new management is instituted. However, by holding out they queer the deal and ruin even the partial benefit they might have enjoyed. While this notion is taken with some seriousness in some circles it is generally laughed at around here.

Prior to the Williams Act, corporate raiders were able to solve any hold out problem more easily because they could make lightning fast offers. Even now, causal evidence suggests that corporate raiders like T. Boone Pickens and Sir Roger Goldsmith make a lot of money on forcing bad management to give up the reins. Even so, the returns to corporate acquisitions remained stubbornly reluctant to reveal any truth on this point, at least until Mitchell & Lehn examined the issue.³

Mitchell & Lehn look at the business performance of firms and contrast this between firms that are the object of takeover and those not sanctioned by the market for corporate control. The measure of performance is stock price reaction to the announcement of acquisitions. Acquisitions are an interesting managerial decision to inspect. Only rarely are firms *forced* to engage in acquisitions. Thus, acquisitions are a free choice: When management proposes an acquisition it should increase the value of the company to the existing shareholders. If the corporation makes a bad acquisition then this bidder should become a likely target in the market for corporate control.

The stock price reaction to the announcement of an acquisition is also an efficient metric to use in evaluating management. The stock price reaction at the announcement is the evaluation of the decision by the informed investors. Paramount's managerial decisions from 1962-1982 include 20 acquisitions and the average was slightly positive. Acquirers returns are not necessarily significantly positive even in the event of management working in the best interest of the shareholders. That the stock price reaction is a good measure depends on the ability of management to convey the rationale of its decision to analysts. Some might argue that there are times when management has inside information about the acquisition that cannot be revealed or explained. Even so, the stock market reaction is an *unbiased* measure of the quality of the decision. If analysts always undervalue the story told by management, then there would be a profit rule for trading: Always buy at the announcement of an acquisition. No profit rule exists.

Mitchell & Lehn looked at all the acquisitions comprising 5% or more of the buyers equity value made by the firms tracked by Value Line in 1981. The acquisition records were traced from 1982 through 1986. Of the 1100 VL firms, 289 made acquisitions of this size. 401 purchases were completed. Of the 289 firms, around 90 were themselves the object of takeovers. The acquisition performance of the two groups differed dramatically. The takeover market targeted firms that made the worst acquisitions.

The stroke of brilliance in the Mitchell-Lehn research is that prior research was always stirring the wheat with the chaff as opposed to separating it. Acquisitions are undertaken by both good and

³ Mitchell, Mark, and Ken Lehn, "Do Bad Bidders Become Good Targets?" *Journal of Political Economy*, 1990, 98, 372-397.

bad managers. Acquisition returns are the *sign* of bad management (when they are negative) and the profit to good management (when the acquisition is scapel in the market for corporate governance). Mitchell and Lehn exploit this dichotomy. Their results are:

- Overall, acquisition returns are zero.

This is consistent with the prevailing findings.

- Broken out between firms that became targets and others that did not, the returns are -3% and +3%.

This is the separation of the wheat and chaff. The Manne result holds.

- For those acquisitions that are ultimately divested, if the acquisition was made by a firm that later became a target, the acquisition return was -7%. For those acquisitions that were not divested, if the acquisition was made by a nontarget, the return was +3.5%.

This is a really cute finding because it says that the market is very prescient about the potential profitability of the firm restructuring that is forecast when a firm engages in an acquisition.

An alternative to tender offers in the market for corporate control is that of a group of shareholders initiating a proxy contest. They petition the other shareholders to proxy them their right to vote. This enables the petitioners to have a majority of the vote and oust the management. Though this is difficult to pull off, and even in the event that the proxy contest turns out to be unsuccessful, a management shake-up is bound to follow.