UNIVERSITY HONORS PROGRAM

SENIOR PROJECT - APPROVAL

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PROJECT TITLE: How to Determine When Mergers and Acquisitions Create Value for Long-Term Investors

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I have reviewed this completed senior honors thesis with this student and certify that it is a project commensurate with honors level undergraduate research in this field.

Signed: _____, Faculty Mentor

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Comments (Optional):

How to Determine When Mergers and Acquisitions Create Value for Long-Term Investors

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April 15, 1998

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Mr. David Moon
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Dear Mr. Moon:

As we discussed on February 23, I have investigated how to determine when mergers and acquisitions create value for investors.

Investment advisors and academic researchers continue to debate the question of when a merger or acquisition creates value for investors. This informational report contributes to the body of research on this problem, but also seeks to answer a specific question of what characteristics of mergers and acquisitions suggest that the new company will create abnormally high shareholder value.

Research shows that mergers between companies that were not formerly direct competitors, but that were in the same industry group performed better than deals between fierce rivals. Cash transactions reward investors better than deals that involve stock trades. Also, hostile acquirers receive better returns than friendly acquirers. Also, target shareholders in contested bids tend to earn significantly large returns.

In summary, cash deals that come as hostile takeovers between intra-industry firms create the greatest shareholder returns when the firms are not direct rivals. The most successful investors look for deals that involve these characteristics to achieve the greatest long-term return on investment.

I still need to explore how a merger or acquisition constructed as a purchase of interest rewards investors compared to a deal constructed as a pooling of interest. The Form of Payment section indirectly addresses one of the key differences between these two deal structures. However, I look forward to suggestions on the best ways the identify the effects on the other differences.

Sincerely,

Charles Holmes
Researcher

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How to Determine When Mergers and Acquisition Create Value for Long-Term Investors

Executive Summary

Research shows that mergers between companies that were not formerly direct competitors but that were in the same industry group performed better than deals between fierce rivals. Cash transactions reward investors better than deals that involve stock trades. Also, hostile acquirers receive better returns than friendly acquirers do. Most information suggests that targets that receive multiple, contested bids also outperform targets for which bidders do not need to compete.

Investors regularly purchase shares of companies that have recently merged with, or have acquired other firms. However, despite their research and analysis, investors do not consistently achieve higher returns on their investment in the newly merged entity than they might have with investments in the two separate entities.

From a strictly financial perspective, buyers would pay for the net assets of a target company. But the deal drivers make up the difference between the net assets and the final purchase price. Acquirers and targets establish the deal structure through the due diligence process. The structure of the deal can significantly affect the company operations, employee jobs, management compensation packages and product mix.

The criterion of this report is how successfully it guides investors to purchase company shares that will generate superior returns. The characteristics that the report considers are among the most important guides to shareholder returns outside of the inherent worth of the companies involved in the deal. Certainly, whether a firm is well managed and provides a useful product are the most important indications of a firm's ability to produce revenues and cash flows.

With an understanding of the key characteristics of the deal, investors can more successfully chose between firms that seem to have similar financial prospects and invest in the one with the best deal structure. In a similar fashion, investors can glean important information about the future prospects of a firm from a few preliminary indicators that influence the success of a merger or acquisition.

The conclusions of this report reflect how markets react to different deals, their structures and some preliminary factors that can influence a company's future. Readers and investors must remember that whether they own shares of the acquiring firm or the acquired firm affects their individual returns. Also, whether they own shares before, during or after a particular deal often dictates the level of return they may achieve over the long term.

Introduction

Investors who purchase shares of recently merged companies want to be sure that they invest in companies whose value increases as a result of the merger.

Purpose

Investors regularly purchase shares of companies that have recently merged with, or have acquired other firms. However, despite their research and analysis, investors do not consistently achieve higher returns on their investment in the newly merged entity than they might have with investments in the two separate entities. The purpose, therefore, of this project is to identify what characteristics of mergers and acquisitions (M&A) suggest that the new company will create abnormally high shareholder returns.

Information for this report comes from sources in the Hodges Library and Law Library at the University of Tennessee, and the Davidson County Public Library. Books, financial journals and company annual reports will form the base for the report. Additionally, I consult with finance professors and local investment advisors.

Scope

In this report, I will define and discuss capital markets, the efficient market theory, general types of mergers and acquisitions, and the role investors play in the financial market system.

I will investigate the following topics in detail:

1. What have been significant trends in M&A activity in the US?
   - What have been the causes of merger trends?
2. In what ways do capital markets influence and react to corporate transactions?
   - How do markets measure attributes like managerial talent?
   - What other factors influence the way capital markets respond to a deal?
3. How can the due diligence process affect the success of a merger?
   - What can occur when acquirers do not approach this step properly?
   - In what way does the due diligence process reflect in capital markets?
4. What are key characteristics of merger and acquisition structures?
   - Mode of acquisition -- Merger v. Tender offer
   - Form of payment -- Cash v. Stock
5. What are important preliminary indicators of merger and acquisition returns?
   - The struggle for the target -- Contested bid v. Uncontested bid
   - Pre-deal relations -- Cordial competition v. Fierce rivalry

The report will not attempt to discuss taxes and their effects primarily because tax laws vary by country and change frequently. The report focuses on the factors that make a merger profitable, and will not focus on why corporate managers believe mergers might be profitable.

Limitations

This report's conclusions may only have predictive value in cases that are similar to the ones I discuss here. Most of the information relates to large, publicly traded companies that are widely held. Small, private companies may produce results that do not conform to this report's conclusions. Realistically, this project will build upon existing works and offer an elementary method to understand under what circumstances merging companies will create value for investors.

Assumptions

I assume that governments will not significantly alter the regulations to which merging companies must adhere. Additionally, this report's conclusions will remain valid as long as investors receive free flows of information, and capital markets in individual countries remain linked globally. I also assume that investors will continue to measure total return on investment by increased share value instead of other non-financial factors.

Criteria

The criterion of this report is how successfully it guides investors to hold or purchase company shares that will generate superior returns. As a corollary, it should guide investors to sell or reduce their holdings of company shares as well.

Significant US Merger Trends

This century has allowed the United States to expand the limits of capitalism. Trends in mergers have expanded and changed as well. Particularly since the years around World War II, the US economy has lead the world's economic trends. Researchers frequently identify five distinct merger waves that were lead by or have produced economic changes in this century.

The first great merger wave climaxed in 1900. The trend of horizontal consolidations in several manufacturing industries in the US changed the country's business landscape. Especially active participants in this wave were companies in the primary metals, food, non-electrical machinery, transportation equipment, tobacco, chemicals and metal products industries (Post 13).

This movement accompanied major changes in economic infrastructure and production technologies that created economies of scale and specialization.

The second major merger wave occurred during the roaring 20's, in which public utilities and banking industries actively participated. Food processing, retailing, chemicals, and mining sectors became targets during this time of vertical integration. Analysts note that companies expanded their operations vertically to benefit from production efficiencies that shortened processes and eliminated waste, and secured inputs and product outlets (Post 14).

The next major wave of transactions occurred during the 1960's, and peaked at the economic climax of 1968. The conglomerate became the favorite corporate structure for takeovers (compared to horizontal and vertical), and almost half of the firms regarded as conglomerates were based in the defense and aerospace industries. These government budget-dependent industries were volatile, however, and they diversified broadly into durable goods, petroleum and coal products, paper products, and industrial chemicals.

The mid 1970's to late 1980's showed managers shift from the conglomerate mentality to a more strategic focus on mergers. Firms in oil and gas extraction, electronic equipment and industrial machinery sought to solidify their core activities (Post 15). Horizontal acquiring returned as firms bought smaller or weaker competitors that were very similar to themselves.

In the 1990's, companies have developed the desire to offer "one-stop shopping" and have focused their acquisitions on firms that provide complementary goods and services. The financial and telecommunications industries are excellent examples of this latest wave. Insurers, brokerage firms, investment banks, credit card companies and commercial banks have joined to offer clients a huge array of financial services. In telecommunications, cable, local and long distance telephone providers, Internet providers, motion picture companies, and print media companies are joining forces to control the information age.

Despite these waves of activity, inconclusive support exists about why they occur. Indeed, some claim that each wave has its own unique causes that do not repeat themselves. Nonetheless, the reasons managers and investors use to defend each trend generally center around making more money. The inconsistency of their results, however, suggests that while they may need to change with trends to survive in an evolving marketplace, these external forces are not necessarily good indicators of their ability to reward investors through the capital markets.

Mergers, Acquisitions and the Capital Markets

Researchers continue to study how capital markets influence and react to mergers and acquisitions. The equity markets often dictate the terms of a potential acquisition bid, and they

are also the scorecards by which investors determine if they have made or lost money on various transactions.

Frequently, once a potential acquirer announces a bid (offer) for another firm, the stock of the target (acquired) company jumps significantly. This sometimes happens because investors believe that the acquirer has information or resources to use with the target which will increase the value of the firm. They may also believe that the target's management was weak and inefficient, and that the acquirer will remove these incompetent managers and run the company better.

At the same time, however, that the target firm's stock often rises, the stock price of the acquirer often falls or remains unchanged. Investors realize that the acquiring firm must deal with the potential of serious problems that can accompany an acquisition. The acquirer must successfully meld different cultures, coordinate different management structures, maintain employee morale, incur transition costs and accounting charge-offs, and ultimately ensure that the target firm is really worth what they paid for it.

The capital markets will assess all of these and more factors about a proposed merger and assign a value that may or may not accurately reflect the true value of the firm and it's earning potential. Still, investors depend on these fickle and volatile markets.

Due Diligence

Even when a target's financial statements are accurate, they can seriously mislead a buyer that doesn't examine them in detail. Beyond the financial due diligence, acquirers can ensure that they receive what they pay for with a due diligence process that confirms whether the drivers that made a deal attractive are really as good as they look. Acquirers that conduct due diligence to get behind the corporate-wide financial statements that Generally Accepted Accounting Practices (GAAP) require will increase the chance of success for themselves and for investors.

From a strictly financial perspective, buyers would pay for the net assets of a target company. But the deal drivers make up the difference between the net assets and the final purchase price. *Mergers & Acquisitions* agrees with the idea that these non-financial aspects like markets and market share, products and technology, brand names, management teams, opportunities to cut costs and synergies are still important (Filek 29). Real due diligence has to address these deal drivers. To that end, the goal of due diligence is to validate a purchase price that frequently exceeds net asset value.

Acquirers and targets establish the deal structure through the due diligence process. The structure of the deal can significantly affect the company operations, employee jobs, management compensation packages and product mix. This research focuses on how the deal

structure affects investors who own stock in either the acquirer or target, since the capital markets will account for all of the above factors through the prices it assigns. For that reason, the due diligence process is very important for investors because it can determine how well a company rewards investors over the long term.

The various trends, or waves, of merger and acquisition activity identified above do not necessarily reward investors abnormally because of the type of company acquired, or because of any particular trend behind the acquisition. Exogenous factors like the era in which a deal was conducted and the state of the economy have not conclusively produced abnormally high shareholder returns by themselves. Rather, the characteristics of the deal structure more likely contribute to the way capital markets respond in the long term and to the type of returns investors receive. Due diligence begins that process, and the structure that evolves from it suggests whether the new company will create abnormally high shareholder value.

Critical Characteristics of the Deal Structure

Mode of Acquisition

The mode of acquisition offers a crucial piece of information about an announced deal. Mergers are different from tender offers. A *Journal of Finance* article defines the two ideas clearly. "Mergers are usually friendly deals that enjoy the cooperation of incumbent managers. Tender offers are made directly to target shareholders, often to overcome resistance from incumbent managers, and indicate greater confidence in the acquirer's ability to realize efficiency gains from the acquisition" (Loughran 1767).

One of the significant effects of a tender offer, or hostile takeover, is that the managers of the acquired firm tend to leave shortly after the deal. Tender offers coincide with acquirers that expect to benefit from company synergies. Additionally, some research suggests that firms that make tender offers continue to bypass the target's managers, and create additional efficiency by removing them (Martin and McConnell 671).

We may deduce a few things from this information. Shareholders in the target firm were probably dissatisfied with existing management, and the buyer offered them a higher price per share than they thought they could gain otherwise. At the same time, investors who hold shares of the acquiring firm may or may not benefit over the long term from this type of deal because acquiring managers base their bid price on earning expectations which may or may not materialize for the combined firm. Other factors also contribute to investor returns, but history strongly suggests that shareholders of the target firm in tender offers fare much better than their peers who are in mergers and own shares of the acquirer.

Form of Payment

The form of payment that a bidding company offers to its target tells a lot about the deal and its prospects as well. Since managers have information that investors do not, firms will most likely issue stock when they believe the equity markets have overvalued it. Accordingly, firms will usually chose to offer cash when the stock is undervalued. Interestingly, the form of payment correlates highly to the mode of acquisition. For example, acquirers often finance a merger with their stock, but they will almost always offer cash when they make a tender offer (Loughran 1767).

Countless researchers have concluded that cash deals reward investors more richly than stock deals. More specifically, target shareholders receive significantly higher returns when the acquirer uses cash. Additionally, the strength a cash acquirer demonstrates suggests that its ability to generate positive returns will continue to reward shareholders. Ironically, the idea of market efficiency does not allow shareholders of the already-strong acquirer to receive abnormally high returns. Rather, investors will have already accurately evaluated and priced those shares, making them profitable but not abnormally superior performers.

Cash bids also suggest that the acquiring firm has great confidence in the prospects of its target. Furthermore, a cash transaction suggests the bidder's ability to sustain substantial future cash flows from its existing assets. These indications frequently increase the market value of the acquired firm. However, as Opler and Weston suggest, "this value change reflects market assessment of undervaluation, rather than altered cash flows and increased wealth" (Post 210).

Equity issues are rare in tender offers, but they occur commonly in mergers. Frequently, managers decide to offer a stock swap that allows the stronger firm to absorb the target. This arrangement often disappoints the stockholders of the acquiring firm. The target firm's shareholders experience mixed results, depending on whether the merger resulted from an interest in horizontal or vertical integration, but they rarely achieve the abnormally high returns of cash deals. The firms merged to capitalize on horizontal integration perform slightly better than deals based on vertical integration, but if the deal structure involves an equity issue or stock swap returns to investors tend not to be spectacular.

Preliminary Indicators of Return

The Struggle for the Target

The question of whether deals that involve multiple bidders for a single target offer abnormally high returns produces mixed answers. In this case, independent of the mode of acquisition or form of payment, the bidding climate directs the returns shareholders achieve. Target shareholders are clear winners when two or more bidders struggle to beat each other's

offers by increasing the price per share above market value and realistic expectations. In these cases, the "unfortunate winner" may find itself unable to create a solid return on investment, much to the chagrin of its original shareholders.

Bradley, Desai, and Kim offer evidence which suggests that bidders in contested bids earn significant negative returns (3). However, J. Franks et al. find that even though bidders pay more for contested targets (multiple bidders), they do not necessarily experience significant negative announcement returns (92). Rather, they suggest that the difference to shareholders over the long term is statistically insignificant based on the bidding climate.

In light of several sources, including Post (212), which argue that target firms in contested bids do earn significantly positive returns, I prefer to agree with the overwhelming evidence and to dismiss the findings of J. Franks et al. on this issue as statistically insignificant.

The issue of capital market efficiency resurfaces here. Most empirical evidence suggests that capital markets constantly evaluate and balance the worth of a company with the price investors are willing to pay for that company. Bids that offer target shareholders abnormally higher returns defy this theory because rational investors should not willingly pay more for something than it is worth. The anomaly occurs frequently when bidders attempt to outbid each other for a potential target, and the windfalls that investors may receive in these cases do represent abnormally high returns.

I realize that it may be very difficult to predict if a potential target may draw the bids of multiple acquirers. Investors can increase their chances of finding these types of firms by looking to industries or sectors that have recently attracted such attention, or that have found acquirers willing to offer extremely high premiums for a target in an attempt to ward off other likely bidders.

Pre-Deal Relations

The way firms relate to one another before they join to form one company can significantly impact the performance of their combined entity. The due diligence process can often smooth managerial transitions and tensions that may exist on a corporate level between both firms. However, the job of this transition team becomes more complicated and ultimately more important with cases in which the companies were fierce rivals as opposed to cordial competitors.

Normally, companies that compete for revenues from the similar client pools are not "cordial." However, many instances exist that allow competitors to coexist without developing intense animosities or negative feelings toward each other. When each firm develops a culture that repulses the other, serious issues may surface after senior managers complete the deal. Mark Heitner writes in *Mergers & Acquisitions*, "One of the most serious problems in a merger of

rivals is the danger of losing customers and key employees" (18). This issue is more difficult to evaluate, and the effects are more difficult to predict than the other factors discussed.

If we consider a theoretical example like a proposed merger between Coca-Cola and Pepsi, this point becomes clearer. Employees in both companies believe that their firm is the best. They also tend to believe that their own products are vastly superior to those of their rival. They have each told customers as many bad things about each other as they could legally say. Suddenly combining these two groups and asking them to work together as a team would certainly jeopardize customers and employees.

All others things equal, mergers and acquisitions between firms that were not fierce, bitter rivals before joining generally perform better than others. A thorough due diligence process in these cases should include a business plan and clearly articulated new mission for the combined entity. In mergers between fierce rivals, the deal structures and preliminary indicators explained above influence the success of the new company, but if managers neglect these softer issues they can seriously undermine the long-term profitability of their new company.

Between investments that are otherwise very similar, investors tend to receive better returns when the firms are not fierce rivals before they combine. At this point, I have not found conclusive empirical research that shows the difference in returns between investors of fierce rivals and cordial competitors. However, studies of net income and revenue growth indicate that firms meet expectations more frequently when they were cordial (Heitner 22).

Conclusions

One of the most important parts of a merger or acquisition, apart from the inherent strengths of the firms involved, is the structure of the deal. The mode of acquisition can have a large impact on shareholders' returns of the target firm. A merger frequently rewards target shareholders, and frequently disappoints shareholders of the bidding firm. On the other hand, when an acquirer bypasses incumbent management to make a tender offer directly to target shareholders these investors often receive abnormally high returns.

Highly correlated to the mode of acquisition, the form of payment also gives shareholders different returns. Cash deals reward investors more richly than stock deals do. Some underlying reasons behind why managers chose to offer equity instead of cash suggest that investors will not receive huge returns in the long term. Cash offers bode well for both the target and acquiring shareholders.

Before managers finalize the terms of a merger or acquisition, the number of bidders interested in a particular target affects investor returns as well. Despite efficient market theories, bidders sometimes offer and pay more for a target than appears prudent. In these scenarios, the obvious winners are the target shareholders. Multiple bidders do not always pay too much for a

target, as the competition may bring the eventual sale price up to market value from a discounted first offer. Still, in a case where all other factors are equal, a contested bid will at least reward investors better than an uncontested bid.

Finally, pre-deal relations affect company performance and shareholder returns. Firms that are not fierce rivals generally perform worse than others after a merger or acquisition. Managers must work through several issues to make two environments that once fought each other to suddenly work smoothly and harmoniously together. In this case, both acquirers and targets regularly do not meet expectations.

Combinations of factors influence company performance that are broad, ambiguous and unpredictable. Managers who conduct a thorough due diligence process have a better chance of creating a better union between firms, but the capital markets can create havoc for even the most conscientious dealmakers. The body of research on this topic is large and continues to grow, to which this report makes a small contribution.

Glossary

Acquisition. Occurs when one company agrees to purchase a majority of the outstanding stock of another company

Bid. Offer, or formal price that an acquirer submits to own part or all of a target.

Capital Markets. Financial markets that deal with securities whose maturities are greater than one year

Corporate Value. Measured by different means, but generally described as what a particular company's shares should be worth, and what investors should be willing to pay to own them

Due Diligence. A legal and financial process through which firms inspect each other's financial strengths and weaknesses before completing a merger or acquisition.

Efficient Market Theory. Theory argues that capital markets accurately reflect all available information at all times, and that investors cannot consistently earn abnormally high returns legally. In Graham and Dodd's Security Analysis, Cottle et al. dedicates a chapter to this topic by the same name and explains the strong, semi-strong, and weak forms of this theory.

Merger. Occurs when two companies agree to combine resources and form one legal entity with only one corporate structure and share price

Tender Offer. An offer that an acquirer makes directly to the shareholders of a target, usually bypassing the incumbent target's managers

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