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Linda Canina
Cornell University School of Hotel Administration, lc29@cornell.edu

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Keywords
mergers and acquisitions, hospitality industry, portfolio, takeover, stocks

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Comments

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Linda Canina
Assistant Professor of Finance
School of Hotel Administration
Cornell University

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We examine the stock market's reaction to merger announcements in the lodging industry over the 1982-2000 period. Unlike the results for the overall market, we find that both the stockholders of the acquiring and target firms gain at the time of the merger announcement. In the lodging industry, mergers are positive net present value investments for bidders. Whereas for the overall market, merger bids are at the best zero net present value investments. In addition, we found that shareholders benefit from mergers in the short- (one year), medium (three year) and long-term (five-year). Lastly, the wealth gains to tender offers and significantly greater than the wealth gains to mergers for both the portfolio of target and acquiring firms.

Managers sell mergers to shareholders and institutional investors claiming that the value of the two firms is greater together than apart. In theory, this is probably true because of monopolistic power, efficiency gains, and/or the elimination of inefficiencies. But in reality, there are frictions and implementation problems such as clashes of corporate cultures, leadership problems and as a result, the financial reality may be quite different from the theoretical expectations of management. On average, over time, across all industries, fewer than half of all mergers have created value. In fact, according to The Economist (January 9th 1999, pp 21-23), "study after study of past merger waves has shown that two of every three deals have not worked; the only winners are the shareholders of the acquired firm, who sell their company for more than it is really worth." How, the prudent manager should wonder, can we be one of the few that succeed? The main purpose of this paper is to analyze whether mergers in the lodging industry have added value. Specifically, we examine both the targets' and acquirers' stock price reaction to merger announcements. In addition, we compare the pre-merger value of the two firms to the short-, medium-, and long-term post-merger combined values.

The hospitality industry is a mature industry, where the leader companies have been fighting for market share. Segmentation had been one of the strategies to maintain growth in this environment. However once the demand for new products leveled off, consolidation became the way to grow. So, given the slow pace of internal growth that can be achieved through regular business development processes, consolidation was a key tool to meet the market's expectations of fast and constant growth.

Both big and small companies have been involved. For the bigger corporations the main reason was "getting bigger", in pursuit of critical mass. Smaller companies had a different approach; they combined in an effort to remain competitive, sharing resources and trying to achieve economies of scale.[1] Also, the globalization of the market has made U.S. companies acquire brands and corporations overseas in an effort to ensure an international presence. Buying international companies is a faster and more efficient way of expanding than purchasing properties individually.

[1] Economies of scale refer to decreases in per-unit costs that result from an increase in the size or scale of a company's operations.

Mergers and acquisitions proliferate in all sectors in times of steady growth, low inflation and a hot stock market. Furthermore, economics, technology and logistics are making size in the lodging industry increasingly more important. The more rooms you have, the lower the cost per room of supplies including furniture, bedding and the expensive technologies demanded by guests who want to be able to plug in their computers in their rooms. Training also becomes more efficient when spread across a large workforce.

The computers and communications systems used for reservations and billing also become more useful as companies grow. With a computer reservation system, hotel companies can track their customers' spending over time in different hotels. Frequent guests are worth the investment, by setting up a room the way they like it and/or by offering discounts. Such systems are expensive but the relative cost decreases as the number of reservations increases.

Even though managers claim that the two firms are worth more together than apart, historically for the overall market, the financial reality has been somewhat disappointing. The shareholders whose company is bought end up richer; the shareholders of the buyer seldom do. The purpose of this paper is to analyze the financial reality of mergers in the lodging industry. That is, to estimate the effect of the announcement of corporate acquisitions on stockholder returns for a portfolio of acquirers and a portfolio of targets. Furthermore, we compare the value of the combined firms at one, three and five year intervals after the merger announcement to the sum of the values of each firm prior to the merger announcement. This allows us to determine whether the stock markets' reaction at the time of the merger announcement is consistent with the additional value created over various time intervals following the merger.

The remainder of this paper is organized as follows. Section I presents the underlying theories of mergers. Section II describes the hypotheses tested in this article and Section III, the data sample. Section IV presents the methodology and reports the results of our statistical tests. The final section summarizes and concludes the paper.

I. Reasons for Takeovers

Takeovers occur through merger, tender offer, or proxy contest, and sometimes elements of all three are involved. In mergers or tender offers the bidding firm offers to buy the common stock of the target at a price in excess of the target's previous market value. Mergers are negotiated directly with target managers and approved by the target's board of directors before going to a vote of target shareholders for approval. Tender offers are offers to buy shares made directly to target shareholders who decide individually whether to tender their shares for sale to the bidding firm. Proxy contests occur when an insurgent group, often led by a dissatisfied former manager or large stockholder, attempts to gain controlling seats on the board of directors.

Economic analysis identifies two broad motives for value maximizing mergers. Either they are undertaken to achieve synergies between the acquiring and the target firms, or they are undertaken to discipline the target firm's managers. In synergistic takeovers, gains are generated by efficiencies that result from combining the physical operations of the acquiring and the target firm. In disciplinary takeovers, gains can be achieved without combining the physical operations of the two firms. Rather, altering the non-value maximizing operating strategies of the target firm's managers generates gains.[2] In either case, if mergers are value-maximizing decisions, the value of the combined firm should be at least the sum of the values of each firm separately.

Firms merge to fulfill certain objectives. The overriding goal for merging is the maximization of the owners' wealth as reflected in the acquirer's share price. More specific motives include growth or diversification, synergy, fund raising, increased managerial skill or technology, tax considerations, increased ownership liquidity, and defense against takeover. These motives should be pursued when they are believed to be consistent with owner wealth maximization. Each of these motives is described below.

1. Growth or diversification

Companies that desire rapid growth in size or market share or diversification in the range of their properties may find that a merger can be used to fulfill this objective. Instead of going through the time-consuming process of internal growth or diversification, the firm may achieve the same objective in a short period of time by merging with an existing firm. Such a strategy is often less costly than the alternative of building new product. If a firm that wants to expand can

[2] Nonvalue maximizing behavior on the part of the target's managers can take a variety of forms. For example, it could include the excessive consumption of corporate perquisites, excessive compensation, overpayment for supplies and raw materials, or the deployment of corporate resources to self-enriching or self-aggrandizing projects. It could also be that the target's managers are simply ineffective at or incapable of operating the target firm efficiently.

find a suitable going concern, it may avoid many of the risks associated with the development of new properties. Moreover, when a firm expands or extends its product by acquiring another firm, it also removes a potential competitor.

2. Synergy

The synergy of mergers is the economies of scale resulting from the merged firms' lower overhead. These economies of scale from lowering the combined overhead increase earnings to a level greater than the sum of the earnings of each of the independent firms. Synergy is most obvious when firms merge with other firms in the same line of business, because many redundant functions and employees can thereby be eliminated. Staff functions, such as purchasing and sales, are greatly affected by this type of combination as well as computers and reservation systems.

3. Financing

Often, firms combine to enhance their financing ability. A firm may be unable to obtain funds for its own internal expansion but able to obtain funds for external business combinations. Quite often, one firm may combine with another that has high liquid assets and low levels of liabilities. The acquisition of this type of cash-rich company immediately increases the firm's borrowing power by decreasing its financial leverage. This should allow funds to be raised externally at a lower cost.

4. Taxes

Quite often, tax considerations are a key motive for merging. In such a case, the tax benefit generally stems from the fact that one of the firms has a tax loss carry forward. This means that the company's tax loss can be applied against a limited amount of future income of the merged firm over the shorter of either 15 years or until the total tax loss has been fully recovered. Two situations could actually exist. A firm with a tax loss could acquire a profitable company to utilize the tax loss. In this case, the acquiring firm would boost the combination's after-tax earnings by reducing the taxable income of the acquired firm. A tax loss may also be useful when a profitable firm acquires a firm that has such a loss. In either situation, however, the merger must be justified not only on the basis of the tax benefits but also on the grounds consistent with the goal of owner wealth maximization. Moreover, the tax benefits described can be used only in mergers.

5. Liquidity

The merger of two small firms or a small and a larger firm may provide the owners of the small firm(s) with greater liquidity. This is due to the higher marketability associated with the shares of larger firms. Instead of holding shares in a small firm that has a very "thin" market, the owners will receive shares that are traded in a broader market and can thus be liquidated more readily. Also, owning shares for which market price quotations are readily available provides owners with a better sense of the value of their holdings. Especially in the case of small, closely held firms, the improved liquidity of ownership obtainable through merger with an acceptable firm may have considerable appeal.

II. Hypotheses

One of our concerns, in this paper, is to estimate the effect of corporate acquisitions on stockholder returns. In this section we examine a number of alternative hypotheses of mergers to derive testable implications for the effects of mergers on stockholder returns. These hypotheses fall within two categories, the positive impact hypotheses and the zero impact hypothesis.

1. The positive impact hypotheses

There are at least three hypotheses that predict that corporate acquisitions will have a positive impact on the values of target and/or bidding firm's equity.[3] Each of these hypotheses implies that the announcement of a corporate acquisition releases positive information about the firms involved and that the stock prices of these firms will rise to reflect this new information.

The first hypothesis is that mergers result in monopolistic market power and that monopoly rents are generated.[4] The empirical implication is that the target and/or bidding firm stockholders benefit from a merger, but the hypothesis provides no prediction as to how the monopoly rents are split. Unsuccessful merger attempts generate no monopoly rents and no gains are implied for either firm. Furthermore, these unsuccessful mergers are not costless since the management of both the bidding and target firms dissipate resources in the offer. Abnormal losses in unsuccessful offers are therefore consistent with this hypothesis.

An alternative hypothesis is that there are gains from mergers arising from increased productive efficiency when the real assets of the two firms are combined. This synergy hypothesis suggests that combining these assets will result in an increased aggregate market value of the two firms.[5] Vertical integration motivations are special cases of this hypothesis. The synergy hypothesis has the same empirical implications for stockholders as the monopolistic hypothesis: successful mergers will result in gains and unsuccessful offers will result in either a zero or negative impact. Thus, it is not possible to discriminate between the monopolistic and

[3] Galai and Masulis (1976) demonstrate that corporate acquisitions will also affect the value of the firm's debt.
[4] See Ellert (1976) for a discussion and empirical test of this hypothesis.
[5] Mandelker (1974) discusses this hypothesis.

synergy hypotheses by examining the impact of the takeover announcement on stockholder returns.

The internal efficiency hypothesis contends that the assets of the target firm were not being utilized efficiently prior to the takeover attempt. The bidding firm is assumed to be motivated by information on the inefficiency. A special case of this hypothesis is that corporate takeovers are a means of disciplining inept management.[6] Whatever the origins of the inefficiency, the announcement of a takeover attempt are viewed as positive information for the target firm. The information released is that stockholder wealth will increase if the inefficiency is eliminated. Unless there are permanent barriers to the realization of these gains (in which case it is not an inefficiency) the market value of the target firms will increase.

The implication of the internal efficiency hypothesis for the market value of bidding firms is less clear. The impact of the takeover attempt depends upon the market's evaluation of the new information and the offering price, and either normal or positive abnormal returns are consistent with the hypothesis. If information of the target firm's inefficiency were publicly available prior to the offer, competition in the acquisition market would imply normal returns for the bidding firms. If the information is not publicly available prior to the offer and is not released during the offer, the bidding firms will realize positive abnormal returns. Thus, positive abnormal returns can be generated by bidders engaged in takeovers, which are successful. Those bidders whose tenders are unsuccessful, however, will not realize any gains and can experience abnormal losses as resources are dissipated.

2. The zero impact hypothesis

This hypothesis states that corporate takeovers have no impact on the values of the firms involved. The hypothesis implies that there are no net gains from altering the operations of the target or bidding firms. The empirical implications are that for the successful mergers the stockholders of both bidder and target firms earn normal returns. Unsuccessful offers are not costless and the stockholders of both firms can earn negative abnormal returns.

We have now developed two distinct sets of empirical implications of the effects of mergers on stockholder returns. These are summarized below. The monopolistic, synergy and internal efficiency hypotheses each predict non- negative abnormal performance for stockholders of

[6] See Manne (1965) for an exposition of this argument.

firms engaged in successful mergers. The predictions of the zero impact hypothesis are obvious.

III. The Sample

Our data sample was formed by a two-stage process. First, we searched the CRSP data files for all NYSE, AMEX and NASDAQ firms delisted during 1981-1998. Second, we searched the SDC database for all mergers over the January 1999 – March 2000 period. CRSP identifies firms delisted by reason of acquisition with a delisting code between 200 and 203 and a last dividend payment code starting with 32, 37, or 38. The delisting date is the effective date of acquisition. We checked the *Capital Adjustments Register* to identify the acquiring firm for each delisted firm. The announcement dates were collected from the *Wall Street Journal Index*. The final sample comprises acquisitions that satisfy the following criteria: the acquirer and the target are U.S. companies listed on the New York Stock Exchange (NYSE), the American Stock Exchange (ASE) or the National Association of Securities Dealers Automated Quotation System (NASDAQ); and, the acquirer or the target is in the lodging industry.[7]

Table 1 reports the annual number and annual market value of target stocks for acquisitions completed during 1982-2000. Our sample includes a total of 57 acquisitions with an aggregate market value of target stocks of over $ 53 billion dollars. A noticeable trend is present in the data. During the late 1990's, lodging companies had been joining together as never before. The value of lodging mergers of publicly traded companies has increased dramatically since 1993. In 1993, there were 2 mergers valued at $29.7 million, in 1994, 5 mergers valued at $280 million, in 1995, five mergers valued at $196 million, in 1996, four mergers valued at $ 4.9 billion, in 1997, 7 mergers valued at $15 billion, and in 1998, 11 mergers valued at $25 billion. In 1999 there were four mergers announced, valued at $4 billion. The value of acquisitions in the lodging industry was almost 1000 times greater in 1998 relative to 1993. Since 1998, the number and value of acquisitions has still been significant but far lower than the levels in 1997 and 1998.

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[7] The lodging industry was defined by the 4 digit SIC code of 7011 and the Lodging Real Estate Investment Trusts, SIC codes of 6798 and 6799.

Table 1: Number and Value of Acquisitions by Calendar Year

Year	Total Number of Acquisitions	Aggregate Dollar Value of All Acquisitions
1982	1	152.4
1983	2	423.7
1984	2	316.0
1985	3	460.3
1986	2	1,065.0
1988	4	50.7
1989	1	55.5
1990	1	48.4
1992	1	4.8
1993	2	29.7
1994	5	280.1
1995	5	196.4
1996	4	4,936.0
1997	7	15,559.6
1998	11	25,013.1
1999	5	4,827.0
2000	1	428.3
Total	57	53,847.0

A lot of the consolidation in 1998 was driven by REITS. Refer to Appendix A for a list of the publicly traded U.S. lodging companies involved in mergers over the 1982-2000 period. For example, Starwood and Patriot American were able to use their low-cost capital and unique structure to snatch up several billion dollars in acquisitions that included large hotel C-corps, small hotel portfolios and countless single hotel assets. The largest transaction during 1998 was between Starwood and ITT. After a very interesting battle Starwood acquired ITT, becoming the world's largest lodging and gaming company with over 650 hotels. Also Patriot American went on an aggressive acquisition spree that included Wyndam Hotel Corporation, WGH Resorts and Casinos, Grand Heritage Hotels, Interstate Hotels, and many others. The first hotel "paper clip" REIT was created when Capstar Hotel and American General Hospitality agreed to merge. CapStar spun off its hotel operations and management business to its stockholders as MeriStar Hotels and Resorts (the new C-Corp that was created) and subsequently merged its hotel assets into American General Hospitality (which was renamed as MeriStar Hospitality Corporation). MeriStar became the third-largest hotel REIT and MeriStar Hotels and Resorts became the country's second largest independent hotel manager. The combined REIT owned 110 hotels, focusing mainly in the premium end of the full-service sector

Significant consolidation had also occurred in C-Corps. For example, Doubletree had been very active. Since going public in 1994, Doubletree merged with Guest Quarters. Then, in 1996 they acquired Red Lion hotels, expanding the company's portfolio of upscale, full-service hotels by 56,000 rooms. They also acquired RFS Inc., a hotel management company and purchased an interest in the RFS REIT. Doubletree had also reached a preliminary agreement to buy Renaissance, but Marriott outbid them. Then, in September 1997, Promus and Doubletree announced their intentions to merge. The two companies consolidated assets under the Promus Hotel Corporation name with a total value of $4.7 billion and annual revenues over $5 billion. The hotel portfolio consisted of 1,199 properties and a total of 178,800 rooms under multiple brands (Embassy Suites, Hampton Inn, Hampton Inn & Suites, Homewood Suites, Doubletree, Doubletree Guest Suites and Red Lion). On September 7, 1999, Hilton announced their intentions to acquire Promus for about $4 billion. This merger resulted in one of the world's largest and most diverse lodging companies, with about 1,900 hotels and 350,000 rooms worldwide.

IV. Methodology and Results

In order to test the market's reaction to merger announcements in the lodging industry, we examined the unexpected return the day before through the day after the merger announcement. Daily closing prices of the stock for each company were obtained from the CRSP Daily File. The sample period, for each company, is defined as 102 days before the announcement date through one day after the announcement date. The daily returns were computed as the log price relatives adjusted for dividends.

The analysis of the effect of corporate acquisitions on stockholder returns is accomplished by testing the statistical significance of the unexpected return of a portfolio of acquiring/target firms that announced mergers in the lodging industry using the event study methodology.[8] The unexpected returns for the portfolios of acquiring and target firms are computed each day of the event period. The mean model is used to estimate the expected return during the estimation period. The event period is defined as one day before through one day after the announcement date. The estimation period consists of 100 trading days prior to the event period.

A brief description of the standard event study methodology used to compute the excess returns and t-statistics for the portfolio of acquiring and target firms during the announcement period follows. First, the expected return was computed during the estimation period by event *i*, by company *j*

$$\overline{R}_{ji} = \frac{\sum_{t=-101}^{-2} R_{jit}}{\mathrm{N}_{ji}}$$

Where:

t	is the t'th day relative to a given announcement date i for firm j,
R_{jit}	is the log price relative for firm j, event i and day t,
N_{ji}	is the number of trading days in the estimation period for event i, company j.

The unexpected or excess return is calculated for each day, *t*, in the event period, by event, *i*, by company *j*. It is defined as the actual daily return minus the expected return.

[8] See Brown and Warner [1980, 1985] for a detailed explanation of event study methodology.

$$\hat{e}_{jit} = R_{jit} - \overline{R}_{ji}$$

Where t denotes the t'th day relative to a given announcement date i for firm j. The excess returns are averaged across events for the acquiring and target companies separately in order to compute the unexpected return for the acquiring/target portfolio of firms for each day, t, in the event period.[9]

$$\overline{e}_t = \frac{\sum_{j=1}^{J}\sum_{i=1}^{I_j} \hat{e}_{jit}}{\sum_{j=1}^{J} I_j}$$

Where I_j represents the number of announcements of mergers for company j.

In order to test the statistical significance of the daily excess returns by event and the daily excess returns for the acquiring/target portfolio, t statistics were calculated, in the following manner: 1) Calculate the t-statistic for the unexpected return, by event day, t, by announcement, i, by company, j:

$$t(\hat{e}_{jit}) = \frac{\hat{e}_{jit}}{se_{ji}}$$

Where se_{ji} is the standard error of the unexpected returns calculated over the 100-day estimation period prior to the event period of each announcement i, by company, j. And, 2) Calculate the t-statistic for the unexpected return on each portfolio, by event day, t:

$$t(\overline{e}_t) = \frac{\sum_{j=1}^{J}\sum_{i=1}^{I_j} t(\hat{e}_{jit})}{\sqrt{\sum_{j=1}^{J} I_j}}$$

The results, the excess return and the t-statistic for the portfolio of acquiring firms and target firms for each day in the event period are presented in Table 2. Panel A presents the results for the entire sample of both mergers and tender offers, Panel B, the results for the sample of mergers alone and Panel C, the results for the sample of tender offers alone. For the sake of completeness, the analysis was performed separately for the samples of mergers and tender offers since prior research found that acquirers under perform over the long run after mergers, but not after tender offers.

[9] All statistics are computed assuming independence.

Table 2. Acquirer and Target Portfolio's Abnormal Returns

Panel A: Mergers and Tender Offers

Day Relative to Announcement Day	Acquirer		Target	
	Abnormal Return	t-statistic	Abnormal Return	t-statistic
-1	0.0547	0.1826	0.6599	0.3358
0	1.2820	3.1460	8.9089	26.4655
+1	-0.2328	-1.4283	1.3406	2.2975

Panel B: Mergers

Day Relative to Announcement Day	Acquirer		Target	
	Abnormal Return	t-statistic	Abnormal Return	t-statistic
-1	-0.2325	0.1725	1.8153	1.9150
0	0.9056	2.5559	5.5806	17.8217
+1	-0.3254	-1.5722	0.7201	1.8376

Panel C: Tender Offers

Day Relative to Announcement Day	Acquirer		Target	
	Abnormal Return	t-statistic	Abnormal Return	t-statistic
-1	0.4950	0.1813	-3.2850	-2.2885
0	3.6140	3.5108	14.1200	25.1292
+1	-0.1420	-0.5471	3.7050	1.0758

3. Entire sample --mergers and tender offers together

For the entire data sample, that is for both mergers and tender offers, Table 2, Panel A shows the unexpected return and t-statistic for each day during the announcement period, the day preceding through the day following the announcement for the portfolio of acquiring firms and the portfolio of target firms. The results show that the unexpected return for the portfolio of target firms is significantly different from zero on the announcement day, day 0, and the following day, day 1. On the announcement day the unexpected return is 8.9089% and the unexpected return is 1.3406 % for the following day. Each is significant at the one percent level of significance. The extremely large abnormal returns make it quite clear that the shareholders of the target firm benefit upon the announcement of the merger.

For the acquiring firm portfolio, the unexpected return is much lower and is significantly different from zero only on the announcement day. The unexpected return on the announcement day is 1.2820% for the acquiring portfolio compared to an unexpected return of 8.9089% for the target portfolio on the announcement day. The unexpected return is insignificantly different from zero for both the days preceding and following the announcement for the portfolio of acquiring firms.

In sum, the results show that the shareholders of both the acquiring and target firms gain at the time of the merger announcement. Further, we see that the gains to the shareholders of the target firms are much greater than the gains to acquiring shareholders.

These results are consistent with the positive impact hypotheses described in Section III that predict that the announcement of an acquisition reflects positive information about the firms involved. This positive information results in a positive stock price response. That is, a statistically significant and positive unexpected return. The positive price response may be due to the effects of monopolistic market power, increased productive efficiency due to synergies and/or increased efficiency due to the removal of inefficiencies. Each of these effects predicts that the combined firm generates cash flows with a present value in excess of the sum of the market values of the acquiring and target firms.

The results found here are similar to those for the overall market for the portfolio of target firms but are different for the acquiring firm portfolio. For the overall market, most studies that examine mergers' effect on shareholders agree that target-firm shareholders gain when the merger is announced. Our results are consistent with the overall empirical evidence for the target firms. However, the existing evidence regarding the gains to acquiring shareholders are mixed. Some studies show that merger bids are, on average, negative net present value investments for bidders. However, others report slightly positive, but statistically insignificant, abnormal returns – suggesting that merger bids are zero net present value investments. Our evidence differs significantly since we find significantly positive unexpected returns for the portfolio of bidding firms on the merger announcement day. Unlike the results for the overall market, we find that both the stockholders of the acquiring and target firms gain at the time of the merger announcement. It appears that in the lodging industry, mergers are positive net present value investments for bidders. As a result, mergers, on average in the lodging industry have been value-maximizing decisions.

In sum, the results suggest that mergers appear to be value enhancing in the lodging industry since both the target and acquiring portfolios earn positive excess returns. On average, mergers increase the value to the shareholders of the target firms while not reducing the value, actually increasing the value, to the shareholders of the acquiring firms.

The results may differ in the lodging industry relative to the overall market since most of the mergers in the lodging industry have remained within the company's core business. It makes sense that mergers are more likely to succeed when companies buy businesses they know something about. In addition, most of the mergers in the industry have occurred more recently. Over this period, senior managers have become substantial shareholders, ensuring that their interests are more closely aligned with those of other owners of the business. This may have discouraged more egotistical deals.

4. Mergers and tender offers, separately

The empirical evidence for the overall market indicates that the effect of takeover attempts varies across takeover techniques. Both acquiring and target firms experience higher abnormal returns in tender offers relative to mergers. The mode of acquisition may be related to the expected wealth gains resulting from operating synergies and the disciplining of target managers. 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. Martin and McConnell (1991) document a large turnover of target managers during the two years following tender offers, which suggests that the acquirers in tender offers attempt to create wealth gains by removing inefficient managers.

As shown in Table 2, Panels B and C, our results are consistent. Target firms experience statistically significant abnormal stock price changes of 25.12% in tender offers and 5.5806% in mergers on the announcement day. Acquiring firms experience statistically significant abnormal returns of 3.6140% and 0.9056% in tender offers and mergers, respectively. Our results indicate that the wealth gains to tender offers are significantly greater than the wealth gains to mergers, in the lodging industry. Whether or not this difference is due to the acquirers ability to achieve larger efficiency gains in tender offers than in mergers is an interesting topic for further research.

5. Short-, medium- and long-term performance

We know that for the overall market, less than half of all mergers add value in the medium- to long-term. In order to analyze this result for lodging companies, we compared the short-, medium- and long-term performance of lodging companies involved in consolidation to the overall market. More specifically, we examined the short-, medium- and long-term average market value of equity for our sample of lodging companies involved in consolidation. In addition, we examined the short-, medium- and long-term average market value of equity for all publicly traded companies. In this way we are controlling for the differences in overall market conditions, across time. The results are presented in Table 3. The average market value of equity for lodging companies is greater after the merger relative to one week before the merger over each holding period. The average market value of equity is $0.948 million one week before the merger announcements. Whereas, the average market value of equity is $2.312 million, one year after, $2.171 million, two years after, $2.006 million, three years after, $1.748 million, four years after, and $1.289 million, five years after. The average value reaches a peak, one year and falls steadily throughout the five-year period. However, even at the end of the fifth year, the average market value is higher than the pre-merger value.

It could be that these results are due to market-wide factors independent of value added as a result of the mergers. As shown, in Table 3, the average overall market value follows exactly the same pattern. It peaks one year after and falls steadily throughout the five-year period.

However, unlike the lodging sample, the average overall market value two years after, of $5,818, million falls below the initial value of $6,359 million.

As shown in Table 3, Panel B, the average holding period returns of lodging companies involved in mergers have been large and positive for periods up to five years. The one-year holding period return was 143.82 percent, the two year, 128.85%, the three year, 111.54%, the four year, 84.27%, and the five year 35.90%. The holding period return was highest over the one-year period and decreases as the holding period increases. On the other hand, the holding period return for the overall market has been positive only for the one year holding period. The one-year holding period return was 8.99%, the two year, -8.51%, the three year, -15.21%, the four year, -17.24%, and the five year, -19.03%. The holding period return has been decreasing as the length of the holding period increases. These results clearly show that mergers have created value in the lodging industry in the short- medium- and long- terms. The large positive returns are a result of the mergers, not a result of market wide fluctuations.

Table 3.
Pre-merger and Post-merger Market Value of Equity and Returns for Lodging Companies and the Entire Market

Panel A

	Average Market Value of Equity	
Time Relative to Announcement ($ millions)	Overall Market ($ millions)	Merged Lodging Companies ($ millions)
1 week before	6,358.944	0.948
1 year after	6,930.925	2.312
2 years after	5,817.924	2.171
3 years after	5,391.721	2.006
4 years after	5,262.755	1.748
5 years after	5,148.857	1.289

Panel B

	Average Holding Period Returns	
Holding Period	Entire Market	Merged Lodging Companies
1 year	0.0899	1.4382
2 years	-0.0851	1.2885
3 years	-0.1521	1.1154
4 years	-0.1724	0.8427
5 years	-0.1903	0.3590

V. Conclusions

In this paper, we have shown that the stock market reacts favorably to merger announcements in the lodging industry for both the acquiring and the target firms. In addition, the reaction is significantly stronger for tender offers than for mergers. These results differ from those for the overall market, which indicate that in general, the target stockholders benefit from mergers while the bidders generally break even. In addition, we have provided evidence that for lodging companies the combined equity value of the bidding and target firms increase as a result of takeovers in the short-, medium and long-term. These increases in equity values could be attributed to some unmeasured source of real economic gains, such as operating synergies, tax savings, transfers from employees or other stakeholders, or increased monopoly rents. But, the equity value gains could also be due to capital market inefficiencies, arising simply from the creation of an overvalued security. From the stock price perspective, the anticipation of real economic gains is observationally equivalent to market mispricing. How ever, an analysis of pre and post merger accounting data will allow us to test directly for changes in operating performance that result from mergers. This is the topic of research currently in progress. If the stock market's positive reaction and increased valuation represent actual economic gains, then these firms should exhibit post-merger increases in operating cash flows returns relative to pre-merger values and/or decreases in their overall cost of capital. These economic gains may come as a result of economies of scale or scope economics. Economies of scale are the reductions in per-unit costs that come as the size of a company's operations increase, in terms of revenues or unit production. Economies of scope occur when a business can offer a broader range of services to its customer base resulting in an increase in operating revenue. The increase in operating revenues may be due to an improvement in market share, product mix and strategic benefits such as access to new and/or difficult to enter markets. Cost reductions may be due to economies of scale reached after achieving a critical mass, complementary resources and inefficiency elimination. The post-merger increase in operating cash flow would explain a pre-merger (at the time of announcement) stock price reaction as a result of anticipated economic gains, indicating that the expected economic improvements underlie the equity reevaluations of the merging firms.

By examining the abnormal returns alone, it is impossible to identify which components of the present value of net cash flows have changed. Without more detailed information about each merger, it is impossible to distinguish among the three effects. For example, data on the equity price changes of firms that compete in product markets with the merged target would allow us to test the hypothesis that takeovers create market power. The market power hypothesis implies that mergers increase product prices thereby benefiting the merging firms and other competing firms in the industry. Higher prices allow competing firms to increase their own product prices and therefore the equity values of competing firms should also rise on the offer announcement.

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APPENDIX A

Date Announced	Date Effective	Year	Acquirer	Target	Value of Transaction	Type	Tender Offer	Form
11/20/1981	3/3/1982	1982	Marriott Corp	Host International inc	$152.4	Disclosed Dollar Value	No	Merger
1982	**Totals**		**1**		**$152.4**			
4/22/1983	4/22/1983	1983	Bally Manufacturing Corp	Bally's Park Place Inc	$286.3	Disclosed Dollar Value	No	Acq. Maj. Int.
1/31/1983	4/6/1983	1983	Bally Manufacturing Corp	Federated Income and Private	$137.4	Disclosed Dollar Value	No	Merger
1983	**Totals**		**2**		**$423.7**			
8/1/1984	9/18/1984	1984	Prime Motor Inns Inc	American Motor Inns Inc	$216.0	Disclosed Dollar Value	Yes	Merger
7/5/1984	7/5/1984	1984	Golden Nugget Inc	MCA Inc	$100.0	Stake Purchases	No	Acq. Part. Int.
1984	**Totals**		**2**		**$316.0**			
12/21/1984	5/31/1985	1985	Pratt Hotel Corp	Drew National Corp	$308.6	Disclosed Dollar Value	No	Merger
8/16/1985	9/26/1985	1985	Resorts International Inc	Pan Am Corp	$97.3	Stake Purchases	No	Acq. Part. Int.
11/25/1985	12/30/1985	1985	Southmark Corp	Servico Inc	$54.4	Stake Purchases	No	Acq. Part. Int.
1985	**Totals**		**3**		**$460.3**			
11/15/1985	4/25/1986	1986	Bally Manufacturing Corp	MGM Grand Hotels Inc	$564.5	Disclosed Dollar Value	Yes	Merger
5/7/1986	8/4/1986	1986	Marriott Corp	Saga Corp	$500.5	Disclosed Dollar Value	Yes	Merger
1986	**Totals**		**2**		**$1,065.0**			
4/26/1988	4/26/1988	1988	Bally Manufacturing Corp	US Health Inc	$28.5	Disclosed Dollar Value	No	Acq. Maj. Int.
12/16/1988	12/14/1988	1988	Golden Nugget Inc	Caesars World Inc	$10.6	Stake Purchases	No	Acq. Part. Int.
2/29/1988	2/29/1988	1988	National Realty LP	Servico Inc	$5.8	Stake Purchases	No	Acq. Part. Int.
11/2/1987	3/1/1988	1988	Southmark Corp	Servico Inc	$5.8	Disclosed Dollar Value	Yes	Acq. Maj. Int.
1988	**Totals**		**4**		**$50.7**			
4/15/1988	1/13/1989	1989	Bally Manufacturing Corp	US Health Inc	$55.5	Disclosed Dollar Value	No	Merger
1989	**Totals**		**1**		**$55.5**			

Date Announced	Date Effective	Year	Acquirer	Target	Value of Transaction	Type	Tender Offer	Form
7/19/1990	12/27/1990	1990	Caesars World Inc	Caesars New Jersey Inc	$48.4	Disclosed Dollar Value	Yes	Acq. Rem. Int.
1990	**Totals**		**1**		**$48.4**			
6/3/1992	7/1/1992	1992	Microtel Franchise and Dvlp	Hudson Hotels Corp	$4.8	Disclosed Dollar Value	No	Acq. of Assets
1992	**Totals**		**1**		**$4.8**			
2/18/1993	10/1/1993	1993	Sahara Resorts	Sahara Casino Partners LP	$19.4	Disclosed Dollar Value	No	Acq. Rem. Int.
4/7/1993	4/30/1993	1993	Blockbuster Entertainment Corp	Discovery Zone Inc	$10.3	Stake Purchases	No	Acq. Part. Int.
1993	**Totals**		**2**		**$29.7**			
4/7/1993	9/6/1994	1994	Blockbuster Entertainment Corp	Discovery Zone Inc	$136.0	Disclosed Dollar Value	No	Acq. Maj. Int.
3/14/1994	8/9/1994	1994	Sea Containers Ltd	Orient-Express Hotels Inc	$75.2	Disclosed Dollar Value	Yes	Merger
10/18/1993	1/24/1994	1994	La Quinta Inns Inc	La Quinta Motor Inns LP	$46.4	Disclosed Dollar Value	Yes	Merger
6/23/1994	6/23/1994	1994	Sodexho SA(Financiere Sodexho)	Corrections Corp of America	$17.5	Stake Purchases	No	Acq. Part. Int.
12/2/1993	2/18/1994	1994	HFS Inc	Capital Gaming International	$5.0	Stake Purchases	No	Acq. Part. Int.
1994	**Totals**		**5**		**$280.1**			
7/6/1995	11/30/1995	1995	Grand Casinos Inc	Gaming Corp of America	$139.2	Disclosed Dollar Value	No	Merger
11/2/1994	5/11/1995	1995	HFS Inc	Casino & Credit Services Inc	$33.3	Disclosed Dollar Value	No	Merger
12/1/1995	12/6/1995	1995	HFS Inc	Insignia Financial Group	$13.9	Stake Purchases	No	Acq. Part. Int.
12/19/1995	12/19/1995	1995	Grand Casinos Inc	Stratosphere Corp	$7.5	Stake Purchases	No	Acq. Part. Int.
1/26/1995	1/26/1995	1995	Sky Scientific Inc	Jockey Club Inc	$2.5	Disclosed Dollar Value	No	Acq. Maj. Int.
1995	**Totals**		**5**		**$196.4**			
6/6/1996	12/18/1996	1996	Hilton Hotels Corp	Bally Entertainment Corp	$3,138.1	Disclosed Dollar Value	No	Merger
8/28/1996	11/8/1996	1996	Doubletree Corp	Red Lions Hotels(Red Lion Inn)	$1,174.1	Disclosed Dollar Value	No	Merger
2/16/1996	6/13/1996	1996	Marriott International Inc	Forum Group Inc	$622.3	Disclosed Dollar Value	Yes	Merger
3/15/1996	9/16/1996	1996	Promus Hotel Corp	Winston Hotels Inc	$1.5	Stake Purchases	No	Acq. Part. Int.
1996	**Totals**		**4**		**$4,936.0**			

Date Announced	Date Effective	Year	Acquirer	Target	Value of Transaction	Type	Tender Offer	Form
5/27/1997	12/18/1997	1997	CUC International Inc	HFS Inc	$11,342.9	Disclosed Dollar Value	No	Merger
11/11/1996	4/30/1997	1997	HFS Inc	PHH Corp	$1,809.5	Disclosed Dollar Value	No	Merger
9/2/1997	12/19/1997	1997	Promus Hotel Corp	Doubletree Corp	$1,703.6	Disclosed Dollar Value	No	Merger
1/17/1997	4/11/1997	1997	Extended Stay America Inc	Studio Plus Hotels Inc	$295.9	Disclosed Dollar Value	No	Merger
3/20/1996	7/1/1997	1997	Hollywood Park Inc	Boomtown Inc	$183.5	Disclosed Dollar Value	No	Merger
7/25/1997	12/1/1997	1997	Prime Hospitality Corp	Homegate Hospitality Inc	$133.2	Disclosed Dollar Value	No	Merger
5/6/1997	7/25/1997	1997	Riddell Sports Inc	Varsity Spirit	$91.0	Disclosed Dollar Value	Yes	Merger
1997	**Totals**		**7**		**$15,559.6**			
10/20/1997	2/24/1998	1998	Starwood Hotels & Resorts	ITT Corp	$13,748.2	Disclosed Dollar Value	No	Merger
1/5/1998	7/17/1998	1998	Meditrust Acquisition Co	La Quinta Inns Inc	$2,907.5	Disclosed Dollar Value	No	Merger
12/2/1997	6/2/1998	1998	Patriot Amer Hosp/Wyndham Intl	Interstate Hotels Co	$2,055.9	Disclosed Dollar Value	No	Merger
3/23/1998	7/28/1998	1998	Felcor Lodging Trust Inc	Bristol Hotel Co	$1,793.2	Disclosed Dollar Value	No	Merger
3/16/1998	8/3/1998	1998	CapStar Hotel Co	American General Hospitality	$1,211.8	Disclosed Dollar Value	No	Merger
12/19/1997	1/20/1998	1998	Harrah's Entertainment Inc	Showboat Inc	$1,147.6	Disclosed Dollar Value	No	Merger
6/29/1998	12/31/1998	1998	Hilton Hotels Corp	Grand Casinos Inc	$832.4	Disclosed Dollar Value	No	Merger
4/14/1997	1/5/1998	1998	Patriot Amer Hosp/Wyndham Intl	Wyndham Hotel Corp	$773.1	Disclosed Dollar Value	No	Merger
12/31/1997	5/22/1998	1998	Boykin Lodging Co	Red Lion Inns LP	$276.0	Disclosed Dollar Value	No	Merger
9/12/1997	1/16/1998	1998	Patriot Amer Hosp/Wyndham Intl	WHG Resorts & Casino Inc	$266.0	Disclosed Dollar Value	No	Merger
9/2/1998	9/2/1998	1998	MeriStar Hospitality Corp	Meristar Hotels & Resorts Inc	$1.4	Stake Purchases	No	Acq. Part. Int.
1998	**Totals**		**11**		**$25,013.1**			
9/7/1999	12/1/1999	1999	Hilton Hotels Corp	Promus Hotel Corp	$3,642.7	Disclosed Dollar Value	No	Merger
8/10/1998	1/4/1999	1999	Harrah's Entertainment Inc	Rio Hotel & Casino Inc	$821.9	Disclosed Dollar Value	No	Merger
11/9/1998	3/1/1999	1999	MGM Grand Inc(Tracinda Corp)	Primadonna Resorts Inc	$268.4	Disclosed Dollar Value	No	Merger
6/11/1999	10/26/1999	1999	Humphrey Hospitality	Supertel Hospitality Inc	$52.8	Disclosed Dollar Value	No	Merger
1/28/1999	5/10/1999	1999	Jameson Inns Inc	Signature Inns Inc	$41.2	Disclosed Dollar Value	No	Merger
1999	**Totals**		**5**		**$4,827.0**			
8/16/1999	3/22/2000	2000	Harrah's Entertainment Inc	Players International Inc	$428.3	Disclosed Dollar Value	No	Merger
2000	**Totals**		**1**		**$428.3**			