Are Investor Reactions to Mergers and Acquisitions Dependent upon the Economic Cycle?

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This paper utilizes an event study methodology to investigate the possible differences in market reactions to same- and cross-industry merger and acquisition activity during different economic cycles. Target firms from same- and cross-industry mergers experience larger positive cumulative abnormal returns during recessions than in non-recessions. This suggests that good news in bad times is worth more than good news in good times. The study also finds evidence that same-industry acquirers experience small but significantly higher CARs than cross-industry acquirers during non-recessions. This result may indicate the market's preference for synergistic same-industry mergers over diversifying mergers.

INTRODUCTION

Behavioral finance scholars have found that investors do not make their decisions in a vacuum (Schijven & Hitt, 2012). Studies have shown that investors are influenced by their perceptions on whether a strategic action will create value (March & Simon, 1958). Drawing from the behavioral theory of the firm (Cyert & March, 1963), we argue that investors do not react to merger and acquisition (M&A) announcements based on rational or efficient calculations. Rather, investors are influenced by their own perceptions and bounded rationality; that is, investors will react to M&A announcement differently in times of recessions and non-recessions. We thus predict asymmetric stock market reactions to similar M&A news for firms in recessions and non-recessions.

Prior literature suggests that "bad is stronger than good" (Baumeister, Bratslavsky, Finkenauer, and Vohs, 2001; Kahneman and Tversky, 1979) and could be related to evolutionary psychology. Humans that were more vigilant towards bad things were more likely to survive threats and would increase their chances of producing more of their genes. During primitive times, only one instance of ignoring a potential bad outcome could result in death (McDermott, Fowler, and Smirnov, 2008). However, ignoring a positive outcome only resulted in a missed chance for "pleasure or advancement" (Baumeister, Bratslavsky, Finkenauer, and Vohs, 2001).

In modern times, the extensive coverage of negative economic news during economic contractions further aggravates the perceptions of economic uncertainty (Bloom 2009, 2014). However, the same attention is not given to positive economic phases (Soroka 2006). Therefore, humans tend towards inconsistent and context-dependent reactions to negative and positive events. McQueen and Roley (1993), for instance, show that when the economy is strong, the stock market responds negatively to news about

higher real economic activity while the same surprise in a weak economy is associated with higher stock returns. This result suggests that good news during bad times is worth more than good news during good times.

Mergers and acquisitions (M&As) are an important method of expansion or diversification (Hitt, Freeman, & Harrison, 2001). Much of the prior literature examines whether M&As influence stock prices without the informative context provided by economic cycles. Typically, studies of M&A returns find large positive target returns (Chevalier, 2004; Xuan, 2014; Wang and Xie, 2009; Bhagat, Dong, Hirshleifer, and Noah, 2005) and small negative acquirer returns (Andrade, Mitchell, and Stafford, 2001; Moeller, Schlingemann, and Stulz, 2005; King, Dalton, Daily, and Covin, 2004). Therefore, this paper seeks to contribute to the extant literature that examines the influence of M&A announcements on stock price by incorporating the economic cycle.

This study investigates the M&A announcement day stock returns across different phases of the business cycle as defined by the National Bureau of Economic Research (NBER). Specifically, we use a traditional Fama-French three-factor event study approach (Fama & French, 1993) to examine announcement day abnormal returns associated with firms (both acquirer and target firms) in recessions and non-recessions. Under this framework, we examine the following questions: 1) Are same-industry target returns different from cross-industry target returns? 2) Are same-industry acquirer returns different from cross-industry acquirer returns? 3) Do economic cycles affect same-industry target returns and cross-industry target returns equally? 4) Do economic cycles affect same-industry acquirer returns and cross-industry acquirer returns equally?

In the following section, we review some of the relevant literature and layout our theoretical framework. We then describe the sample data and methodology used. Next, we empirically test our hypotheses and discuss the results. Finally, we conclude with implications, limitations, and directions for future research.

LITERATURE REVIEW

M&As and Economic Conditions

Many studies have been conducted to examine the influence of M&As on stock price (Bruner, 2002; McQueen & Roley, 1993; Shleifer & Vishny, 2003). Traditional M&A studies, however, generally overlooked the link between M&A announcements and the underlying economic conditions that are present at the announcement. There are good reasons to expect M&A announcements to be perceived differently in different phases of the business cycle. To the authors' knowledge, there is only one study that considers the current economic cycle. In this study, target firm cumulative abnormal returns (CARs) are 3.53% to 8.12% higher during recessions than non-recessions (Wann and Lamb, 2016). This result suggests that good news during bad times is more valuable than good news in good times.

Fama and French (1989) find that expected prices for stocks and bonds are higher when economic conditions are weak (e.g., during recession) and vice versa. When economic conditions are weak as in a recession, more firms are more likely to experience performance problems. Jensen (1991) argues that M&As can be an effective tool to help firms in financial distress. Other scholars have found that distressed firms are more likely to be sold during recessions (Baird & Rasmussen, 2003). Even though M&As can be a tool for firms to cope with recessions, few studies have yet examined the impact of M&As on stock price in recessions.

Though scholars have argued that M&A activities tend to occur less often in recessions (Cools, Gell, Kengelbach, & Roos, 2007), others argue that M&As in recessions often result in better deals (Rhodes & Stelter, 2009). The claims may be valid. For instance, firm values tend to drop in recessions. Thus, the acquirer firm may be able to buy the target firm at a discount (from its real market value). However, if this is the only reason, then we should see similar influence for the acquirer firms and target firms, meaning, both acquirer firms and target firms should experience stock price increases after a recession.

Scholars have not reached an agreement whether M&A announcement has the same influence for both the acquirer firms and target firms in recessions and non-recessions. For example, Goergen and

Renneboog (2004) find that target firms accrue positive returns while acquirer firms experience insignificant return during non-recessions. Other scholars, however, find contradictory results for acquirer firm's stock price (Moeller, Schlingemann, & Stulz, 2005). Ding and Rahaman (2010) find that recessions tend to reveal the true risks of firms that engaged in acquisitions during non-recessions. These firms tend to become acquired during the next recession. On the other hand, firms that acquire during recessions tend to perform well and not be acquired in subsequent recessions. Therefore, a recession provides market participants with information about the true financial strength of acquiring firms.

In summary, scholars have yet reached an agreement whether M&A announcement has a positive impact on a firm's stock price in recessions or non-recessions. We argue that investors react differently to similar M&A announcements in different states of economic conditions due to changing preferences and expectations.

Traditional Efficient-Markets Hypothesis

Fama (1970) argues that a firm's stock price should reflect all available information on the markets. In this reasoning, every investor is informed of any market constraints and can make efficient and rational investment decisions (thus reflected in the stock price). For instance, Klein (2001) suggests that if there is an M&A, this means it will generate positive returns for both firms, increasing shareholder wealth, and thus resulting in higher stock price. Efficient-markets hypothesis has three assumptions. First, investors are rational. Second, irrational decisions are random and rare, and finally, the impact of irrational decisions will eventually be corrected by the market (Schijven & Hitt, 2012).

Based on the efficient-markets hypothesis, M&A announcement should have the same impact on stock price regardless whether the economic conditions are weak or strong. Because investors are rational, they should be able to make the best decisions based on firms' M&A announcements. Despite its popularity, scholars have found several drawbacks. First, efficient-markets hypothesis downplays informational asymmetry that is well-studied in the management field (Aharoni, Tihanyi, & Connelly, 2011; Connelly, Certo, Ireland, & Reutzel, 2011). Information asymmetry often exists between managers and investors because managers are the ones that oversee the day-to-day operations of the firm (Myers & Majluf, 1984). Investors often rely on public information whereas the managers often hold the keys to private information. Second, efficient-markets hypothesis assumes that the markets are efficient but fails to explain how and why. It treats the market as a black box where things just naturally happen (Zajac & Westphal, 2004). If markets were to be as efficient as the efficient-markets hypothesis assumes, there would be no opportunity for arbitrage.

Many studies have shown that markets are not as efficient as what is believed (Cording, Christmann, & Weigelt, 2010; Hunter & Coggin, 1988). Target firms have been found to experience positive abnormal returns of 20%, 21.52%, and the range of 17.96% to 44.78% in studies by Ishii and Xuan (2014), Wang and Xie (2009), and Bhagat, Dong, Hirshleifer, and Noah (2005), respectively. Acquirer firms have been found to experience negative returns (Moeller, Schlingemann, and Stulz, 2005; King, Dalton, Daily, and Covin, 2004).

Given the complexity of M&As, the information asymmetry between the managers and investors will be high. Adding the complexity of different economic conditions such as recessions, it is plausible that investors will react differently. Thus, M&A announcements are likely to influence stock price in different ways in recessions and non-recessions. We thus relax the assumptions of the efficient-markets hypothesis and turn to the behavioral theory of investors.

Behavioral Theory of Investors

Cyert and March (1963) propose that people make decisions based on different factors, such as routines and learning. In essence, people are bounded rational. Different scholars have found support for the behavioral theory by examining the perceptions of risks and uncertainty and how they affect a firm's strategies (Argote & Greve, 2007; Gavetti & Rivkin, 2007). For instance, Cuypers and Martin (2010) examine the perceptions of firm risk with respect to real options on international joint ventures, and find exogenous uncertainty strongly influences investment. Others find that family firms often perceive risks

differently than non-family firms; thus family firms display different risk tolerance behaviors (Gomez-Mejia, Haynes, Nunez-Nickel, Jacobson, & Moyano-Fuentes, 2007).

Behavior theory can explain the investors' behaviors because it takes into consideration information asymmetry and people's reactions to it. Scholars have shown that when a target firm is a private firm, it will be harder for investors to value it than a public target firm (Officer, Poulsen, & Stegemoller, 2009). In this vein, behavioral theory suggests that the investors' reactions on the stock market are the results of "problematic search" (Greve, 2003). This means that the investors' problem is the information asymmetry and thus they seek to find the information needed to make the best investment decisions. Thus, an M&A announcement will trigger an investor to search for information in order to maximize their wealth (Kock, 2005). For instance, Veronesi (1999) finds that shareholders overreact to bad news in good times. There has been evidence that M&As can be affected by a recession (Aguiar & Gopinath, 2005) and Gaughan (2011) finds that the recession of 2008 decreased most firms' number of M&A activities.

Building on the arguments above, an M&A announcement will influence an investor differently in times of recession vs. non-recession. During a recession, an M&A announcement shows that a target firm is "worthy" of being acquired. Because the investors have no private information available to them, they have to rely on public information. This can be thought of as good news in bad times. Investors are likely to react positively to the M&A announcement for the target firm. On the other hand, in a non-recession, the investors may not value the good news in good times as much as good news in bad times.

DATA

Sample

The sample includes firms with annual data on the Thompson One database as well as research industrial file from January 1, 1971 to December 31, 2013. The sample excludes incomplete M&As or those that were repurchases. Repurchases occur when firms buy back its own shares. The initial search gave us a total of 64,989 M&A announcements, and they included deal-level information (e.g. target country and M&A size). The initial sample contained a total of 73,277 unique firms. Stock return data are obtained from the Center for Research and Security Prices (CRSP) daily stock event file. After matching the original sample to the available CRSP stock return data, the sample size decreased to 31,815 firms.

One purpose of the study is to analyze event period cumulative abnormal returns for same- and cross-industry M&A activity. There are twelve industry categories: consumer products and services, consumer staples, energy and power, financials, healthcare, high technology, industrials, materials, media and entertainment, real estate, retail, and telecommunications. Table 1 describes the sample in terms of percentages of acquirer and target firms by industry. The largest percentage of acquirer and target firms represent the technology, industrial, financials, and health care industries.

Table 2 reports descriptive statistics for merger announcements by business cycle phase and merger type. Panel A reveals that there were a total of 3,492 total firms involved in mergers and acquisitions during recessions versus a total of 28,323 firms during non-recessions. The total percentage of firms involved in M&A activity during recessions and non-recessions is 11% and 89%, respectively.

As expected, merger activity is reduced during economic downturns (Cools, Gell, Kengelbach, & Roos, 2007; Aguiar & Gopinath, 2005). The target firm sample consists of 363 (9.6%) firms during recessions and 3,402 (90.4%) firms during non-recessions. Similarly, the acquirer firms sample consists of 3,192 (11.2%) firms during recessions and 24,921 (88.8%) firms during non-recessions. The total number of target firms that had returns available in CRSP is 3,765 while the number of acquirer firms is much larger at 28,050. The lower availability of target stock return data is due to the lack of publicly traded shares for a majority of these firms.

TABLE 1
INDUSTRY COMPOSITION OF ACQUIRER AND TARGET FIRMS

Industry	Acquirer	Target
Consumer Products and Services	6.7%	6.5%
Consumer Staples	5.4%	3.9%
Energy and Power	6.7%	7.2%
Financials	13.4%	20.3%
Healthcare	10.9%	13.4%
High Technology	19.0%	18.3%
Industrials	15.3%	9.6%
Materials	7.4%	5.2%
Media and Entertainment	4.3%	3.7%
Real Estate	3.9%	3.7%
Retail	3.5%	3.5%
Telecommunications	3.5%	4.8%
Total	100%	100%

TABLE 2
DESCRIPTIVE STATISTICS ON MERGER ANNOUNCEMENTS DURING RECESSIONS AND NON-RECESSIONS AND FOR SAME- AND CROSS-INDUSTRY MERGER ANNOUNCEMENTS

Panel A	Target	%	Acquirer	%	Total	%
Recessions	363	9.6%	3,129	11.2%	3,492	11.0%
Non-recessions	3,402	90.4%	24,921	88.8%	28,323	89.0%
Total	3,765	100.0%	28,050	100.0%	31,815	100.0%
%	11.8%		88.2%		100.0%	
Panel B	Target	%	Acquirer	%	Total	%
Same-Industry	2,724	72.4%	19,454	69.4%	22,178	69.7%
Cross-Industry	1,041	27.6%	8,596	30.6%	9,637	30.3%
Total	3,765	100.0%	28,050	100.0%	31,815	100.0%
%	11.8%		88.2%		100.0%	

We also provide data for same-industry and cross industry announcements in Table 2 Panel B. Panel B reveals that same-industry mergers occur more often than cross-industry mergers. Same-Industry mergers accounted for 69.7% (22,178) of the total announcements, leaving 30.3% (9,637) attributed to cross-industry announcements. Same-industry target firms make up 72.4% of the sample while cross-industry target firms represent 27.6% of the sample. This is likely due to the perception of an easier assimilation in acquiring and managing a firm within a firm's own industry compared to a diversifying acquisition.

Table 3 provides more detailed data for the types of mergers that occur during recessions and non-recessions. During recessions, there are 2,428 (69.5%) same-industry mergers while there are only 1,064 (30.5%) cross-industry mergers. Therefore, a majority of mergers during recessions involve firms within

the same industry. Similar findings occur during non-recessions. In non-recessions, 69.7% of M&A activity involves firms within the acquirer's same industry and 30.3% occurs outside of the firm's industry.

TABLE 3
DESCRIPTIVE STATISTICS ON MERGER ANNOUNCEMENTS BY ECONOMIC PHASE AND TYPE OF MERGER

Economic Phase	Type of Merger	Target	%	Acquirer	%	Total	%
Recessions	Same-Industry	258	71.1%	2,170	69.4%	2,428	69.5%
	Cross-Industry	105	28.9%	959	30.6%	1,064	30.5%
Total		363	100%	3,129	100%	3,492	100%
%		10.4%		89.6%		100.0%	
Non-recessions	Same-Industry	2,466	72.5%	17,284	69.4%	19,750	69.7%
	Cross-Industry	936	27.5%	7,637	30.6%	8,573	30.3%
Total		3,402	100%	24,921	100%	28,323	100%
%		12.0%		88.0%		100.0%	

METHODOLOGY

Abnormal Performance Measurement

The Fama-French (Fama & French, 1993) three factor model is used to estimate abnormal returns using the following cross-sectional equation:

$$R_{i,t} - Rf_t = \alpha_i - \beta_i(Rm_t - Rf_t) - \gamma_i\, SMB_t - \delta_i\, HML_t + \varepsilon_{i,t} \tag{1}$$

where $t = -100, \ldots, -11$. Also, $R_{i,t}$ is stock i's return, Rf_t is a risk-free rate, and $(Rm_t-Rf_t, SMB_t, HML_t)$ represents the market risk premium, firm size, and book-to-market factors in period t, respectively. Rm_t-Rf_t is the value-weighted return on all NYSE, AMEX, and NASDAQ stocks minus the one-month T-bill rate. The historic excess return of small capitalization stocks over large capitalization stocks is measured by SMB (i.e. small minus big). The historic excess return of high book-to-market equity (value stocks) over low book-to-market equity is measured by HML (i.e. high minus low).

Fama and French (1992) observed that small cap stocks and stocks with a high book-to-market ratio tend to have superior historic performance relative to the market as a whole. These two factors proxy for additional risk factors beyond that of the traditional CAPM beta. Fama and French (1992) showed that these three stock market factors (Rm_t-Rf_t, SMB and HML) capture a larger and more statistically significant fraction of the variation in stock returns. The residuals produced by the three factor model isolate the firm-specific component of returns better than the residuals of the traditional CAPM model (Fama & French, 1993).

Abnormal returns are calculated using the estimated coefficients with the following equation for t= -10, …., 5:

$$AR_{it} = R_{i,t} - Rf_t - \hat{\alpha}_i - \hat{\beta}_i(R_{mt} - Rf_t) - \hat{\gamma}_i\, SMB_t - \hat{\delta}_i\, HML_t \tag{2}$$

Once the excess abnormal returns (*AR*s) are calculated, excess *CAR*s are calculated for each firm over the event period ($t = -10, \ldots, 0, \ldots 5$):

$$CAR_t = \sum_{t=-5}^{5} AR_{i,t} \qquad (3)$$

EMPIRICAL RESULTS

We study the possible asymmetric market reaction to target and acquiring firms during recessionary time periods as opposed to non-recessionary time periods. We examine several pieces of this issue in the following way. We distinguish between mergers involving target firms in industries similar to the acquiring firm versus mergers involving target firms in industries different from the acquiring firm. We expect that same-industry mergers should result in significantly different cumulative abnormal returns than those in cross-industry mergers. This is expectation arises due to the synergies that naturally arise from combining two firms in the same industry. First, we simply examine whether there are differences in returns for same-industry and cross-industry cumulative abnormal returns. Then, we expand our analysis to study the effect of the business cycle on same-industry and cross-industry mergers.

Are Same-Industry Target Returns Different from Cross-Industry Target Returns?

To test this hypothesis, the sample of mergers is segregated into groups based upon two basic types of mergers. We group firms into same-industry mergers and cross-industry mergers. The results in Panel A of Table 4 show the cumulative abnormal returns from the day before the announcement to 5 days afterwards for these two categories of target and acquirer firms. Panel A indicates that there is no significant difference between the CARs of same-industry and cross-industry firms. This finding is contrary to our previously stated expectation of higher same-industry target returns. However, the study has not yet incorporated the possible effects of the current phase of the business cycle.

TABLE 4
CUMULATIVE ABNORMAL EVENT PERIOD RETURNS FOR SAME-INDUSTRY VERSUS CROSS-INDUSTRY MERGERS

Days Relative to AD	-1	0	1	5
A. Target Firms				
I. Same-Industry (A1)				
CAR (%) (-5, t)	2.99%	16.15%	20.86%	20.64%
p-value (n=2,724)	0.0000	0.0000	0.0000	0.0000
II. Cross-Industry (A2)				
CAR (%) (-5, t)	3.13%	16.68%	20.63%	23.39%
p-value (n=1041)	0.0000	0.0000	0.0000	0.0000
Difference in CARs (A1) - (A2)	-0.14%	-0.53%	0.23%	-2.75%
p-value	0.7700	0.5780	0.8240	0.3612
B. Acquiring Firms				
I. Same-Industry (B1)				
CAR (%) (-5, t)	-0.09%	0.10%	0.24%	0.52%
p-value (n=8,779)	0.2847	0.1741	0.0025	0.0000
II. Cross-Industry (B2)				
CAR (%) (-5, t)	0.09%	0.06%	0.20%	0.16%
p-value (n=3,810)	0.1636	0.5320	0.0729	0.2092
Difference in CARs (B1) - (B2)	-0.18%	0.03%	0.04%	0.36%
p-value	0.0942	0.7864	0.7877	0.0163

Are Same-Industry Acquirer Returns Different from Cross-Industry Acquirer Returns?

Panel B of Table 4 reveals a small, but statistically significant difference in cumulative abnormal returns for acquirer firms on day 5 after the announcement. Same-industry acquirers experience 0.36% higher CARs than cross-industry acquirers (p=.0163). Prior research also provides evidence of insignificant short-term acquirer returns (Goergen and Renneboog, 2004). However, this finding may indicate that the market views same-industry M&A activity more favorably than cross-industry M&A activity. The findings in this table indicate that the market values acquirer firms that engage in relatively safer same-industry mergers. This seems to imply that the market values acquisitions that involve same-industry expertise over diversifying, cross-industry mergers. Ultimately, this finding appears to be related to agency theory expectations rather than information asymmetry or behavior theory.

Next, we analyze the insight gained by examining the cumulative abnormal returns in same-industry and cross-industry mergers across business cycles. For reporting purposes, we analyze target firms in recessions and non-recessions separately from acquiring firms. For example, Table 5 only reports the results for target firms and Table 6 only reports the results for acquirer firms.

Do Economic Cycles Affect Same-Industry Target Returns and Cross-Industry Target Returns Equally?

There are many different comparisons that can be studied in Panel A of Table 5. First, we examine whether same-industry target firms experience larger positive abnormal returns during recessions than same-industry target firms during non-recessions. As mentioned before, Wann and Lamb (2016) find that target firm CARs are 3.53% to 8.12% higher during recessions than non-recessions.

Same-industry target firms during non-recessions experience significant CARs in the range of 15.80% to 20.21% after the merger announcement. During recessions, same-industry target firms during recessions experience significant CARs in the range of 19.49% to 27.45%. Therefore, target firms from same industry mergers experience 3.69% to 7.53% larger positive CARs during recessions than in non-recessions over time. The difference between the recession and non-recession CARs are statistically significant from day 0 to 5. The trend in the differences also increases monotonically. Thus, it appears that good news in bad times is stronger than good news in good times.

Second, we examine whether cross-industry target firms experience larger positive abnormal returns during recessions than cross-industry target firms during non-recessions. During non-recessions, cross-industry target firms during recessions experience significant CARs in the range of 16.20% to 23.51%. Cross-industry target firms during recessions experience significant CARs in the range of 21.00% to 23.83% over the time period studied. Even though the target CARs during recessions are larger than those in non-recessions, the differences between the CARs are not statistically significant at the 5% level. However, at the 10% level, cross-industry target returns are 4.80% higher during recessions. This evidence is also consistent with good news being worth more in bad times. Finally, there are no statistical differences between CARs for same-industry and cross-industry target firms during non-recessions (Panel C) and recessions (Panel D).

Do Economic Cycles Affect Same-Industry Acquirer Returns and Cross-Industry Acquirer Returns Equally?

We examine whether same-industry acquirer firms experience larger positive abnormal returns during recessions than same-industry acquirer firms during non-recessions. The results are presented in Table 6. Prior literature suggests that we should not find statistical differences (Wann and Lamb, 2016; Goergen and Renneboog, 2004).

Panel A of Table 6 reveals that same-industry acquirer firms during recessions experience significant CARs of 0.28% to 0.54% on days 1 and 5 during non-recessions. During recessions, same-industry acquirer firm CARs are not statistically significant. The difference between the recession and non-recession CARs are not statistically significant during event period. The business cycle phase does not appear to affect CARs for same-industry acquirer firms.

TABLE 5
CUMULATIVE ABNORMAL RETURNS FOR SAME-INDUSTRY VERSUS CROSS-INDUSTRY TARGET FIRMS DURING RECESSIONS AND NON-RECESSIONS

Days Relative to AD	-1	0	1	5
A. Same-Industry Mergers				
I. Non-Recession (A1)				
CAR (%) (-5, t)	2.98%	15.80%	20.21%	19.92%
p-value (n=2,466)	0.0000	0.0000	0.0000	0.0000
II. Recession (A2)				
CAR (%) (-5, t)	3.04%	19.49%	27.07%	27.45%
p-value (n=258)	0.0025	0.0000	0.0000	0.0000
Difference in CARs (A1) - (A2)	-0.06%	-3.69%	-6.86%	-7.53%
p-value	0.9546	0.0222	0.0124	0.0053
B. Cross-Industry Mergers				
I. Non-Recession (B1)				
CAR (%) (-5, t)	2.92%	16.20%	20.27%	23.51%
p-value (n=936)	0.0000	0.0000	0.0000	0.0000
II. Recession (B2)				
CAR (%) (-5, t)	4.88%	21.00%	23.83%	22.34%
p-value (n=105)	0.0121	0.0000	0.0000	0.0000
Difference in CARs (B1) - (B2)	-1.96%	-4.80%	-3.56%	1.17%
p-value	0.3197	0.0810	0.3148	0.8006
C. Difference in CARs (A1) - (B1)	0.06%	-0.40%	-0.06%	-3.59%
p-value	0.9045	0.6836	0.9631	0.2790
D. Difference in CARs (A2) - (B2)	-1.84%	-1.51%	3.24%	5.11%
p-value	0.3948	0.7121	0.4559	0.2271

Next, we examine whether cross-industry acquirer firms experience different abnormal returns during non-recessions and recessions. In Panel B of Table 6, we find that cross-industry acquirer firm CARs are not statistically significant during the event period, during both phases of the economic cycle. Further, at the 10% level, there are no significant differences between abnormal returns for acquirers in recessions and non-recessions.

Panel C reports the differences in same-industry and cross-industry acquirer returns during non-recessions. Five days after the announcements, same-industry acquirers earn 0.34% higher CARs than cross-industry acquirers during non-recessions (p=0.0336). Therefore, the results found in Table 4 seem to originate from non-recessionary times. This finding of a positive result for acquirers could indicate that market participants view non-recessions as safer times to engage in M&A activity than during recessions. Finally, there are no statistical differences between CARs for same-industry and cross-industry acquirer firms during recessions (Panel D). This is somewhat surprising in the sense that recessions should be viewed more negatively and reflected as more negative CARs for acquirers.

TABLE 6
ABNORMAL ANNOUNCEMENT DAY RETURNS FOR SAME-INDUSTRY VERSUS CROSS-INDUSTRY ACQUIRER FIRMS DURING RECESSIONS AND NON-RECESSIONS

Days Relative to AD	-1	0	1	5
A. Same-Industry Mergers				
I. Non-Recession (A1)				
CAR (%) (-5, t)	0.10%	0.11%	0.28%	0.54%
p-value (n=17,284)	0.1336	0.1333	0.0010	0.0000
II. Recession (A2)				
CAR (%) (-5, t)	-0.14%	-0.05%	0.00%	0.37%
p-value (n=2,170)	0.9475	0.8520	0.7531	0.1103
Difference in CARs (A1) - (A2)	0.23%	0.16%	0.28%	0.17%
p-value	0.6296	0.5432	0.2092	0.4879
B. Cross-Industry Mergers				
I. Non-Recession (B1)				
CAR (%) (-5, t)	-0.09%	0.11%	0.27%	0.20%
p-value (n=7,637)	0.3268	0.2954	0.0221	0.1565
II. Recession (B2)				
CAR (%) (-5, t)	-0.01%	-0.41%	-0.48%	-0.13%
p-value (n=959)	0.6622	0.2157	0.2017	0.6868
Difference in CARs (B1) - (B2)	-0.08%	0.52%	0.76%	0.32%
p-value	0.8825	0.1356	0.0555	0.3440
C. Difference in CARs (A1) - (B1)	0.19%	0.00%	0.00%	0.34%
p-value	0.0966	0.9980	0.9886	0.0336
D. Difference in CARs (A2) - (B2)	-0.12%	0.36%	0.48%	0.50%
p-value	0.7529	0.3780	0.3969	0.2008

CONCLUSION

This paper utilizes an event study methodology to investigate the possible differences in market reactions to same- and cross-industry merger and acquisition activity during recessions and non-recessions. First, the paper reports the frequency of same- and cross-industry mergers and the number of firms involved in M&A activity during different phases of the economic cycle from 1971 to 2013. Second, the paper investigates whether the market regards the announcement of same-industry and cross-industry mergers and acquisitions equally. Third, the paper studies the impact of the business cycle on announcement period returns for same- and cross-industry mergers and acquisitions.

The study finds that the largest percentage of acquirer and target firms represent the technology, industrial, financials, and health care industries. Most M&A activity occurs within the firm's same industry (70%) as opposed to different a different industry (30%). During times of recessions, M&A activity occurs much less frequently than during non-recessions. Roughly 10% of the sample M&As occur during recessions compared to 90% that occur during non-recessions.

The first research question explores whether same-industry target returns are different from cross-industry target returns. The reported results indicate no difference between the target returns of same-

industry and cross-industry mergers. This finding seems surprising due to the expectation that same-industry mergers would be interpreted more positively by the market than cross-industry mergers.

The second research question is: Are same-industry acquirer returns different from cross-industry acquirer returns? Similar to the first research question, the expected answer is yes. The results indicate that same-industry acquirers experience small but significantly higher CARs than cross-industry acquirers 5 days after the announcement. Therefore, there is some evidence that market participants view same-industry mergers more positively than cross-industry mergers. This is likely due to the perceived synergies of acquiring a firm in an industry that is familiar rather than a firm in a completely different industry.

The third research question investigates whether economic cycles have an equal effect on same- and cross-industry target returns. This paper shows significant differences in returns to target firms across the business cycle. Target firms from same-industry mergers experience 3.69% to 7.53% larger positive CARs during recessions than in non-recessions over the event period. Further, target firms from cross-industry mergers experience 4.80% higher returns on the announcement day during recessions. These results imply that good news in bad times is worth more than good news in good times. In other words, market participants exhibit an asymmetric response to target firms based upon the economic cycle. This result indicates the presence of a behavioral bias which warrants further investigation of the impact of economic cycles on research results in much of the existing finance literature.

The fourth and final research question is: Do economic cycles affect same-industry acquirer returns and cross-industry acquirer returns equally? The answer is yes for most of the results. However, as reported before, the second research question reports higher same-industry acquirer returns 5 days after the merger announcement. Ultimately, this specific result can be attributed to non-recessionary time periods where same-industry acquirers earn 0.34% higher CARs than cross-industry acquirers five days after the announcement.

This study is not without limitations. This research only examines short run market perceptions regarding M&A activity and provides no information as to the long term performance of the newly formed company. Further, a survey of investors may reveal different opinions regarding reactions to M&A activity for same- and cross-industry target and acquirers. Survey results may also reveal that the economic cycle is not deemed as important by investors when analyzing M&A deals. However, survey results can be biased and this paper does provide a helpful understanding of what actually occurs with respect to average short-run stock market returns.

Future research could further segregate the results found in this study by these industries to see if there is in industry effect. This may prove useful since about 60% of the sample mergers occur in the technology, industrial, financials, and health care industries. Similarly, industry effects could be studied within the context of the current economic cycle. Other future research could study whether there are differences between target and acquirer returns in cross-border and same-country M&A activity based upon the phase of the economic cycle.

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