Analysis of U.S. Acquirers' Performance Following Cross-Border Mergers and Acquisitions

Jared Cloutier
Cook Street Consulting

Irina Khindanova
University of Denver

ABSTRACT

Cross-border mergers and acquisitions (CBMA) are complex business operations that have become increasingly popular in recent years because of their ability to help firms achieve several benefits, including but not limited to economies of scale, improved access to resources, and increased shareholder wealth. Due to the complicated nature of integrating companies from different nations and cultures, studies show that firms undertaking cross-border mergers and acquisitions can have varying levels of success. The aim of this study is to determine the short- and long-term abnormal returns in the stock prices of U.S. acquirers following completion of cross-border M&A, assuming two investment strategies: daily portfolio rebalancing and buy-and-hold. Research suggests that factors leading to successful U.S. acquisitions of foreign companies include target firms cross-listing on U.S. exchanges and acquisitions of companies in segmented financial markets. This paper also considers the impact of U.S. firms acquiring companies from integrated versus segmented financial markets. The findings of this study based on a daily portfolio rebalancing approach indicate that U.S. acquirers outperformed the market in both the short- and long-term following transaction completion. Based on a buy-and-hold strategy, U.S. acquirers slightly outperform the market in the short-run, but slightly underperform the market in the long-run. This study concludes that U.S. acquirers of target companies from segmented financial markets exhibit outperformance relative to the U.S. stock market in both the short- and long-run. Overall, U.S. firms acquiring companies in segmented markets perform better in the short-run and long-run compared to firms acquiring companies in integrated markets.

Keywords: Cross-border mergers and acquisitions, US acquiring firms

1. INTRODUCTION

This paper analyzes the short- and long-term performance of U.S. acquirers following cross-border mergers and acquisitions. In recent years, CBMAs have become an increasingly popular method of Foreign Direct Investment (FDI). The United Nations Conference on Trade and Development (2015) reported that, from the first half of 2014 to the first half of 2015, the value of CBMA purchases increased by 136%. Additionally, Yang (2014) notes that CBMA accounted for more than 75% of global FDI inflows in 2005. The rising level of global economic integration combined with capital market liberalization are two largely contributing factors to the recent increase in the popularity of this method of FDI. Economies of scale, technological advancement, brand prestige, managerial expertise, improved supplier/distributor relationships, improved access to resources, and increased shareholder wealth are a few desired outcomes of CBMA which help companies become more competitive in the global marketplace. Despite the synergies and increase in value that firms anticipate when undertaking CBMA, studies show that they can have varying levels of success depending on several different factors. This paper examines the short-term and long-term performance of U.S. acquirers' after undertaking CBMA by determining daily cumulative market-adjusted returns over both a one-month and two-year period. A buy-and-hold strategy is also utilized to provide an additional measure of performance over the one-month and two-year periods. An analysis of the data sample using the daily portfolio rebalancing and buy-and-hold strategies is conducted for a subsample which divides the data based on two different classifications: target companies from countries that represent either integrated or segmented financial markets. The data sample utilized in this study includes 244 cross-border mergers and acquisitions by 179 U.S. companies from 2005-2018.

There is existing research that has been conducted on characteristics affecting the results of cross-border mergers and acquisitions. The amount of research that has specifically been conducted pertaining to the performance of U.S. acquirers following cross-border mergers and acquisitions is relatively limited. The literature that is currently available on this topic suggests a few things. First, Cosset and Meknassi (2011) studied the impact of the cross-listing status of target firms on the short- and long-term performance of U.S. acquirers in CBMA using an event-study approach to account for announcement period abnormal returns and a buy-and-hold approach relative to similarly sized firms to account for long-term abnormal returns. They found that acquirers experience higher returns in the long-term when foreign targets cross-listed on U.S. exchanges and they also experience higher long-term returns when they successfully transmit their corporate governance practices to the target firm. Francis et al. (2008) found that large U.S. acquirers in cross-border M&A experienced significant positive abnormal returns and post-merger operating performance improvements when acquiring firms from segmented financial markets. They suggest that value creation takes place through large U.S. firms offering their segmented market targets better access to capital. This paper will help to determine the performance of U.S. acquirers' stock price relative to the performance of the overall market following the transaction.

Over the past 20 years, the yearly value of U.S. acquirers' CBMA has exhibited several noticeable trends. From 2001 - 2008 the aggregate deal value of U.S. acquirers' CBMA was steadily increasing, which was then followed by a sharp decline in 2009 and 2010. Subsequently, the 2011 yearly value recovered to a level that was higher than that of 2008 and in line with the previous uptrend. From 2011 - 2013, a relatively stagnant period pertaining to the yearly value of U.S. acquirers CBMA ensued, which would continue in the years 2015 - 2017 after exhibiting a

major spike in the 2014 yearly value. Finally, another spike occurred in 2018 before the yearly value of U.S. acquirers' CBMA experienced a considerable decline in both 2019 and 2020. These trends are highlighted in Figure 1 (Appendix).

The structure of this paper is as follows. Section two examines previous literature that has been published pertaining to the topic of cross-border mergers and acquisitions. Section three highlights the methodology for empirical analysis that is employed in this paper. Section four describes the data utilized in the event study. This is followed by section five, which highlights the findings based on an empirical analysis. Finally, section six summarizes conclusions that have been drawn as a result of this study.

2. REVIEW OF LITERATURE ON PERFORMANCE FOLLOWING CROSS-BORDER MERGERS AND ACQUISITIONS

Most of the research on CBMA has been conducted on various characteristics that have the potential to influence the performance of companies undertaking the deal, both from the target and acquirer perspective. Several works consider factors that lead to the underperformance of firms following these transactions. Regarding the success or failure of companies engaging in CBMA, the findings are varied.

Internalization theory says that the increased scale of application regarding intangible assets across borders will lead to an increase in shareholder wealth. Morck and Yeung (1991) argue in support of the internalization theory, stating that the lack of information-based assets is responsible for determining whether a firm will experience a positive reaction reflected in its stock price. They also point out the high costs that are often associated with operating an overseas firm and highlight the need for the added value of the acquisition to outweigh these additional costs. Backwards-internalization occurs when a multinational corporation engages in CBMA for the purpose of acquiring and expanding the intangible assets of a foreign target firm. Examples of backwards-internalization are provided in Wang and Khindanova (2020). They point that from 2013 to 2015, the dollar amount of Chinese foreign acquisitions tripled from $259 billion to $735 billion. A shift in China's economic focus has encouraged the development of technology and consumer goods companies, moving away from the traditional Chinese economic focus on manufacturing exports. According to Wang and Khindanova (2020), Chinese companies are now frequently acquiring North American and European firms to capitalize on their technological expertise and intellectual property, and this is highlighted by a case study of four privately owned Chinese firms and one state-owned Chinese firm, all of whom have recently engaged in overseas acquisitions. Liang et al. (2018) suggested that technological advancements are not a primary motivation for emerging market Asian M&A outflows, however reduced foreign labor costs are.

Morck and Yeung (1991) found that when international mergers and acquisitions are announced by firms that engage in relatively high spending on R&D, the firm's stock price experienced positive abnormal returns. For larger firms, the same is true with respect to spending on advertising. Francoeur (2006) found that when predicting the long-term success of Canadian firms engaging in CBMA, higher spending on R&D was associated with a higher probability of long-term abnormal returns in the stock price. Chen et al. (2017) noted an increase in abnormal returns by about 1% when acquiring firms in CBMA deals utilized financial hedging compared to when they did not. They also found that firms who utilized derivatives experienced lower volatility during the announcement of an international deal compared to those that did not.

Frésard et al. (2017) note that abnormal returns are higher for both the acquiring and target firm when there is a large difference in the level of industry specialization between the firms. Furthermore, they note that there is a greater intensity in the amount of CBMA deals between two countries when the acquiring industry, rather than the target industry, benefits from improved technological and human capital.

In the years immediately following the global financial crisis of 2008, approximately 50-60% of all cross-border mergers and acquisitions ended in failure, according to Reddy et al. (2012). A few of the typical problems that tend to arise when firms engage in cross-border mergers and acquisitions include political obstacles, managerial opportunism, increased government regulation, and differences in the culture and politics of the merging firms and their host nations. Managerial opportunism resulting from international expansion past the point of shareholder wealth maximization may encourage poor decision-making regarding cross-border M&A (Jensen 1986). The division of synergistic gains between acquiring and target firms can be a cause for concern if the gains are not distributed equally. Differences in culture and politics can also be problematic when engaging in cross-border M&A. Ahern et al. (2015) found that differences in culture can directly impact the likelihood of a successful merger, as merging firms coming from dissimilar cultures are less likely to succeed than firms coming from similar cultures. Belcher and Nail (2000) studied a 1995 cross-border merger between European firm Pharmacia and American firm Upjohn and noted that unanticipated culture clashes, such as differences regarding leisure and work practices and a corporate governance structure that was split between continents, led to the severe underperformance of the company's stock price immediately following the transaction. According to Cao et al. (2019), when firms have preexisting foreign representation on their board of directors, they tend to engage in less profitable CBMA, as the differences in culture can lead to friction when executing strategy.

There are several factors that can impact the level of success a company has following a cross-border merger or acquisition. Gugler et al. (2003) found that, in general, mergers tend to lead to an increase in profits but a decrease in sales. They also note that this pattern is consistent across different nations and not impacted when examining domestic versus cross-border acquisitions. Gugler et al. (2003) used a model that controls for changes in the broader economy and compares the performance of merging firms against non-merging firms, which represent industry median counterparts. The model also controls for additional acquisitions or sell offs that the acquiring company takes following the initial merger, and measures changes in profits as a ratio of profits to total assets to find these results. Tripathi and Lamba (2015) studied Indian companies engaging in CBMA from 1998-2009 and found that, on the aggregate, firms tend to increase in size more rapidly when undertaking cross-border M&A, but tend to experience a decrease in profitability, solvency, and liquidity. They also separated their data into firms acquiring before and during the financial crisis of 2008 and found that firms acquiring during the crisis experienced reduced growth and greater declines in profitability compared to those acquiring before. Tripathi and Lamba (2015) used several different financial ratios to measure pre-merger and post-merger financial performance and then removed any outliers occurring more than three standard deviations away from the mean. Finally, Martynova et al. (2006) analyzed the long-term operating performance of companies following mergers and acquisitions using two different measures of cash flow which are then adjusted for size using two more different measures, resulting in four separate measures of operating performance. They then compare the pre and post operating performance measures to the median and average firms within the merging firms' industries, testing whether certain characteristics of the deal impacted

performance, and found that performance is negatively associated with hostile bids, tender offers, and acquiring companies with excessive amounts of cash on hand. Martynova et al. (2006) also noted that profitability tends to increase when the target firm is relatively large and decrease when the target firm is relatively small.

3. METHODOLOGY FOR PERFORMANCE ANALYSIS

This paper employs a standard event study methodology to compare the performance of U.S. companies that completed cross-border mergers and acquisitions to the performance of the U.S. stock market by estimating abnormal returns of acquirers' stock prices. Two investment strategies are assumed in the performance analysis: daily portfolio rebalancing and buy-and-hold. Both strategies utilize the S&P 500 index daily returns as a proxy for the overall U.S. stock market.

Analyzing the performance of U.S. acquirers relative to the United States stock market following CBMA using a daily portfolio rebalancing strategy requires several steps. The first step is calculating *daily raw returns* for U.S. acquiring companies and the S&P 500 index from May 6, 2003, to December 31, 2020. This paper examines CBMAs completed between 2005 to 2018, with the first transaction completed in this period announced on May 6, 2004. To have stock returns one year before the announcement date, daily returns calculations begin on May 6, 2003. For an evaluation of long-run performance, the paper examines the two-year period after the completion of transactions. The latest transaction completion date is December 21, 2018. Calculating returns through December 31, 2020, gives two years of data for that transaction.

Subsequently, daily raw returns are used to derive *daily market-adjusted returns*. Based on them, *daily average market-adjusted returns* across firms are found. To assess the U.S. acquirers' performance under the daily portfolio rebalancing strategy, an estimate of daily cumulative market-adjusted returns is necessary. An interpretation of the 2-year cumulative adjusted return (CAR_m) provides insight regarding the long-run performance of U.S. acquirers following CBMA. The positive 2-year CAR_m indicates that the U.S. acquirers outperformed the U.S. stock market in the long-run (over the 2-year period) assuming the daily portfolio rebalancing strategy. Whereas the negative cumulative adjusted return CAR_m means that the U.S. acquirers underperformed U.S. stock market in the long-run (over the 2-year period).

A short-term analysis of U.S. acquirers' performance after CBMA requires finding *daily average market-adjusted returns* over one month after the acquisition completion. This is followed by subsequently estimating daily cumulative benchmark-adjusted returns over one month after the acquisition completion. Once cumulative benchmark-adjusted returns have been determined, interpreting the one-month CAR_m lends insight into the short-run performance of U.S. acquirers following transactions. The positive 1-month cumulative adjusted return CAR_m indicates that the U.S. acquirers outperformed the U.S. stock market in the short-run (over the *1-month* period) assuming the daily portfolio rebalancing. Conversely, the negative cumulative adjusted return CAR_m means that the U.S. acquirers underperformed U.S. stock market in the short-run (over the 1-month period).

Determining the performance of U.S. acquirers following CBMA using the buy-and-hold approach requires a slightly different process compared to the daily portfolio rebalancing strategy. The buy-and-hold analysis methodology follows the process described in (Khindanova and Khindanov, 2015). First, it is necessary to calculate holding period returns for U.S. acquiring companies and the market over two investment periods: (i) one month after the acquisition

completion; (ii) two years after the acquisition completion. From here, the average holding period returns for U.S. acquiring companies and the S&P 500 index are derived. Finally, to analyze the performance of U.S. acquirers following CBMA relative to the performance of the U.S. stock market using the buy-and hold strategy, an estimate of the wealth relative measures as in Ritter (1991) is employed via the following equations:

$$WR_{m,1month} = \frac{1+\bar{R}_{1month}}{1+\bar{R}_{m,1month}}, \quad (1)$$

$$WR_{m,2year} = \frac{1+\bar{R}_{2year}}{1+\bar{R}_{m,2year}}, \quad (2)$$

where $WR_{m,1month}$ is the first trading month (after acquisition completion) wealth relative associated with the benchmark market m, $\bar{R}_{1month}$ is the average first month total return on U.S. acquiring companies, $\bar{R}_{m,1month}$ is the average first month total return on benchmark index m, $WR_{m,2year}$ is the 2-year wealth relative associated with the benchmark market m, $\bar{R}_{2year}$ is the average 2-year total return on companies, $\bar{R}_{m,2year}$ is the average 2-year total return on benchmark index m. If the wealth relative WR_m is more than 1, that implies that the U.S. acquiring companies outperformed the U.S. stock market under the buy-and-hold strategy. While the wealth relative WR_m below 1 means that the U.S. acquiring companies underperformed the U.S. stock market.

4. DATA

The original data sample for this paper consisted of 1,144 cross-border mergers and acquisitions completed by U.S. companies between January 1, 2005, and March 31, 2020. Following a methodology employed by Francis et al. (2008), five acquisitions by utilities companies and 461 transactions by financial companies were removed from this sample, with industries identified using NAICS codes. Furthermore, continuing to follow the Francis et al. (2008) methodology, all transactions made by private U.S. companies were removed from the sample, as this paper only considers publicly traded U.S. acquirers. From here, transactions that were completed after December 31, 2018, were removed from the sample to ensure that two years of stock price data following completion would be available to analyze long-term performance. Data on CBMA transaction by U.S. acquirers was downloaded from the Zephyr database by Bureau van Dijk, which is a Moody's Analytics company. Due to incomplete or unavailable data following transaction completion dates, several more companies were removed from the original sample of transactions by U.S. acquirers. The final sample of transactions utilized in this paper includes 244 cross-border mergers and acquisitions by 178 U.S. companies from 2005-2018, with target companies in 39 countries. Figure 2 (Appendix) shows a distribution of transactions for top 15 target countries. The top target country is the United Kingdom (GB). U.S. companies acquired 58 U.K. companies over the 2003-2018 period. The U.K. is followed by Canada (CA) with 45 acquisitions.

Stock prices and stock returns data were primarily retrieved from the Refinitiv Eikon Thomson Reuters database, and a few stock prices were from finance.yahoo.com. The S&P 500 index was used as a proxy for the broader market. Data on S&P 500 returns and prices was also retrieved from the Refinitiv database.

In order to distinguish between integrated and segmented financial markets, the World Development Indicators database of the World Bank[1] was used to retrieve data regarding target countries' statistics on GNI per capita, Atlas method (current US$).

5. PERFORMANCE OF U.S. ACQUIRERS FOLLOWING CROSS-BORDER MERGERS AND ACQUISITIONS

An analysis of U.S. acquirers' performance compared to the overall stock market following cross-border mergers and acquisitions is outlined in this section. Following the methodology of Francis et al. (2008) outlined in Section 3 of this paper, market-adjusted returns for each of the transactions in the data sample for this study were calculated over both a one-month and two-year period to represent short- and long-run performance. After calculating market-adjusted returns, it is necessary to determine average market-adjusted returns for the data sample in the short- and long-run before estimating cumulative market-adjusted returns which are used to assess U.S. acquirers' performance. U.S. acquirers' average market-adjusted returns over a two-year period following the completion of CBMA are shown in Figure 3 (Appendix).

There are several insights regarding average-market adjusted returns following the completion of CBMA transactions that can be derived from Figure 3. In general, average market-adjusted returns over a two-year period following CBMA exhibited relatively small changes, mostly staying around zero. Several days experienced average market-adjusted returns that were higher than zero, but typically did not exceed 0.6%. Average market-adjusted returns to the downside rarely exceeded -0.4%. Summary statistics for average market-adjusted returns provide further clarity regarding the graph shown in Figure 3. The mean of the 504 observations for average market-adjusted returns is 0.0126%, reaffirming the observation that the returns are typically centered around zero. The median average market-adjusted return value of 0.0105% supports this notion as well. Furthermore, the maximum average market-adjusted return was 0.8801% and the minimum average market-adjusted return was -0.478%, revealing that even on days with the greatest variance from zero, average market-adjusted returns did not ever reach 1% to the upside or downside. The standard deviation for the 504 observations is 0.2004%, maintaining the notion that the average market-adjusted returns did not experience much volatility. Finally, a skewness of 0.357798 implies that the adjusted returns have a tendency to exhibit positive returns more frequently than negative returns, which is ultimately in line with the findings that are presented in the next two paragraphs of this paper.

Figure 4 (Appendix) shows a visual representation of the one-month cumulative average market-adjusted return (CAR_{1month}) for U.S. acquirers following CBMA. As mentioned in Section 3, an interpretation of the cumulative adjusted return is as follows: a positive CAR indicates outperformance relative to the U.S. stock market, whereas a negative CAR indicates underperformance relative to the U.S. stock market. A CAR of zero indicates performance that is in-line with, or identical to the market return. In this study, the one-month cumulative average market-adjusted return (CAR_{1month}) based on the entire sample of 244 cross-border transactions by 178 U.S. acquirers is 0.92%. Thereby, this positive number indicates slight outperformance of U.S. acquirers over a one-month period following CBMA relative to the U.S. stock market, assuming the daily portfolio rebalancing strategy.

Figure 5 (Appendix) is a graph showing the cumulative average market-adjusted return over a two-year period following U.S. acquirers' CBMA. This graph yields similar findings to

[1] The World Bank data can be accessed at data.worldbank.org.

that of the graph over a one-year period. With a two-year cumulative average market-adjusted return (CAR_{2yr}) of 6.36%, this positive figure implies U.S. acquirers' outperformance in the long-run compared to the U.S. stock market following CBMA. With both the short- and long-run performance of U.S. acquirers following CBMA resulting in positive cumulative adjusted returns, it is worth noting that the long-run outperformance is considerably higher than the short-run outperformance, suggesting that the positive effects of the transaction were realized over time, rather than all at once.

The short- and long-run performance of U.S. acquirers following CBMA was also analyzed using a buy-and-hold approach, which resulted in several key takeaways. Following the process outlined in Section 3 of this paper, an ultimate evaluation of U.S. acquirers' performance following CBMA is determined by the wealth-relative measure, which compares the returns of acquiring companies to returns of the S&P 500. When analyzing the short-run performance of U.S. acquirers following CBMA assuming the buy-and-hold approach, the wealth-relative measure (WR_{1month}) was 1.0013. Since this number is greater than one, the appropriate interpretation of this result is to conclude that U.S. acquirers did slightly outperform the U.S. stock market over a one-month period following transaction completion. Assuming the buy-and-hold approach over a two-year period, the wealth-relative (WR_{2yr}) resulted in a figure of 0.9896. Since this number is less than one, an appropriate interpretation of the result suggests that U.S. acquirers slightly underperformed the market in the long-run following the completion of CBMA transactions.

Another consideration analyzed in this paper is the distinction of U.S. companies' acquisitions of target firms from integrated versus segmented financial markets. This paper utilizes GNI per capita as a proxy for market segmentation. The median GNI per capita based on the data sample is $38,840. In this paper, stock markets that are in countries with a GNI per capita less than the median are classified as segmented financial markets. Stock markets that are in countries with a GNI per capita greater than or equal to the median are classified in this paper as integrated financial markets. Based on this classification, the subsample consists of 49 transactions with target companies from segmented financial markets, which includes 19 different countries, and 195 transactions with target companies from integrated financial markets, including 20 target countries.

Results for U.S acquisitions of target firms from segmented financial markets are as follows. Assuming a portfolio rebalancing approach, the one-month cumulative average market-adjusted return (CAR_{1month}) for U.S. acquirers is 1.1370%. An interpretation of this finding implies that, in the short-run, U.S. companies which acquired companies in segmented financial markets outperformed the U.S. stock market by an average of 1.1370%. The 2-year cumulative average market-adjusted return (CAR_{2yr}) for U.S. acquirers of firms from segmented financial markets is 9.4503%. This asserts that U.S. companies which acquired companies in segmented markets exhibited long-term outperformance relative to the U.S. stock market by an average by 9.4503%.

Assuming a buy-and-hold approach, the one-month wealth-relative measure (WR_{1month}) for U.S. acquirers of target firms from segmented financial markets is 1.0139. Since this number is greater than one, an appropriate interpretation implies that, in the short-run, the acquiring companies outperformed the U.S. stock market. Furthermore, the 2-year wealth-relative measure (WR_{2yr}) for U.S. acquirers of target firms from segmented financial markets is 1.0586. This number is greater than one, therefore an appropriate conclusion is that, in the long-run, the acquiring companies outperformed the U.S. stock market.

Results for U.S. acquisitions of firms from integrated financial markets are as follows. Assuming a portfolio rebalancing approach, the one-month cumulative average market-adjusted return (CAR_{1month}) is .8654%. This asserts that, in the short-run, U.S. acquirers of companies from integrated markets outperformed the U.S. stock market on the average by 0.8654%. The 2-year cumulative average market-adjusted return (CAR_{2yr}) is 5.5856%. A conclusion based on this result suggests that, in the long-run, U.S. companies which acquired companies in the integrated markets outperformed the U.S. stock market by 5.5856% on average.

Assuming a buy-and-hold approach, the one-month wealth-relative measure (WR_{1month}) for U.S. acquirers of target firms from integrated financial markets is 0.9982, which is slightly less than one. Therefore, an appropriate interpretation is that, in the short-run, the acquiring companies slightly underperformed the U.S. stock market. Additionally, the 2-year wealth-relative measure (WR_{2yr}) for U.S. acquirers of firms from integrated financial markets is 0.9726, which is less than one. The interpretation based on this result is that, in the long-run, the acquiring companies underperformed the U.S. stock market.

6. CONCLUSIONS

This paper examines the performance of U.S. acquirers compared to the U.S. stock market following cross-border mergers and acquisitions. Additionally, the resulting impact of U.S. companies acquiring target firms from integrated versus segmented financial markets is analyzed. Both considerations employ two different investment strategies: daily portfolio rebalancing and buy-and-hold. An analysis of U.S. acquirers' performance following CBMA contributes to the literature that is currently available on this method of FDI while also lending insight into best practices for future U.S. acquirers to achieve transaction optimization. The results of this study suggest several key takeaways.

Based on a daily portfolio rebalancing approach, the findings of this paper indicate that U.S. acquirers outperformed the market in both the short- and long-term. Assuming a buy-and-hold strategy, results reveal that U.S. acquirers slightly outperformed the market in the short-run, but slightly underperformed the market in the long-run. Findings regarding the distinction of U.S acquirers targeting firms from integrated versus segmented financial markets yielded significant considerations as well. This paper concludes that U.S. companies acquiring firms from integrated financial markets tend to underperform the U.S. stock market in both the short-run and long-run according to the buy-and-hold strategy. The daily portfolio rebalancing approach implies U.S. acquirers' outperformance relative to the U.S. stock market when acquiring target companies from integrated markets in both the short- and long-run. Regarding U.S. companies' acquisitions of target companies from segmented financial markets, this paper found that firms outperformed the U.S. stock market in both the short- and long-run utilizing the daily portfolio rebalancing and buy-and-hold strategies. Cumulative adjusted returns and wealth relatives for the below-median subsample are higher than for the above-median subsample. Therefore, this paper ultimately concludes that the U.S. firms acquiring companies in segmented markets perform better in both short-run and long-run than firms acquiring companies in integrated markets.

This paper can be extended in such directions as running regressions on various subsamples of the data according to characteristics of acquiring firms and distinct time periods which include noteworthy historical events. The consideration of breaking up transactions by the time of CBMA completion, particularly pertaining to the financial recession of 2007-2008 and deals that were completed before, during, or after this historical event, could potentially yield

significant conclusions around engaging in these deals during recessionary periods. Breaking up the data according to firm characteristics such as acquiring companies that are small versus those that are large, or those with a high beta versus those with a low beta, could help provide further insight regarding which firms are the most likely to exhibit success when undertaking CBMA.

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APPENDIX

Figure 1. Yearly Value of U.S. Acquirers' CBMA from 2001-2020

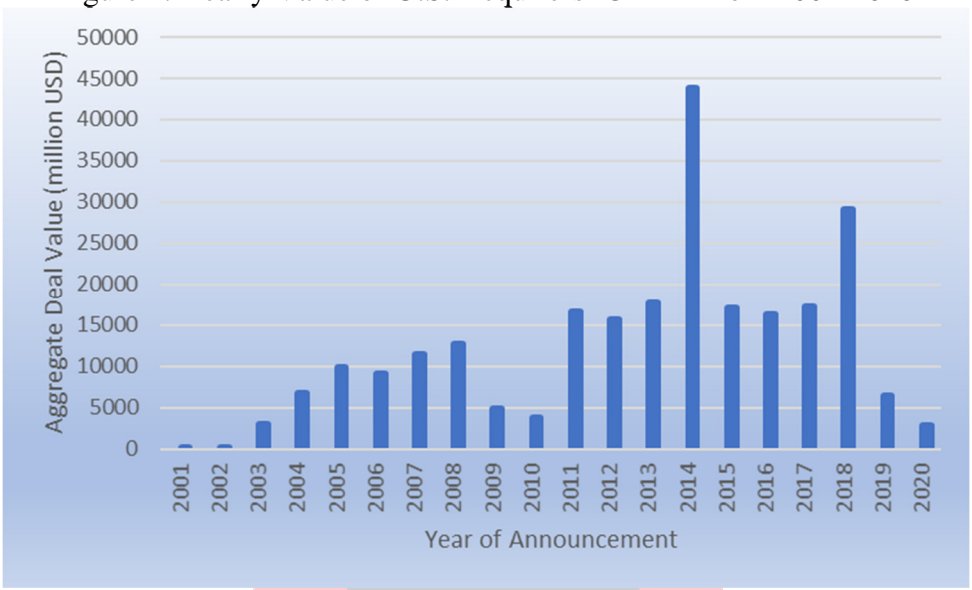

Figure 2

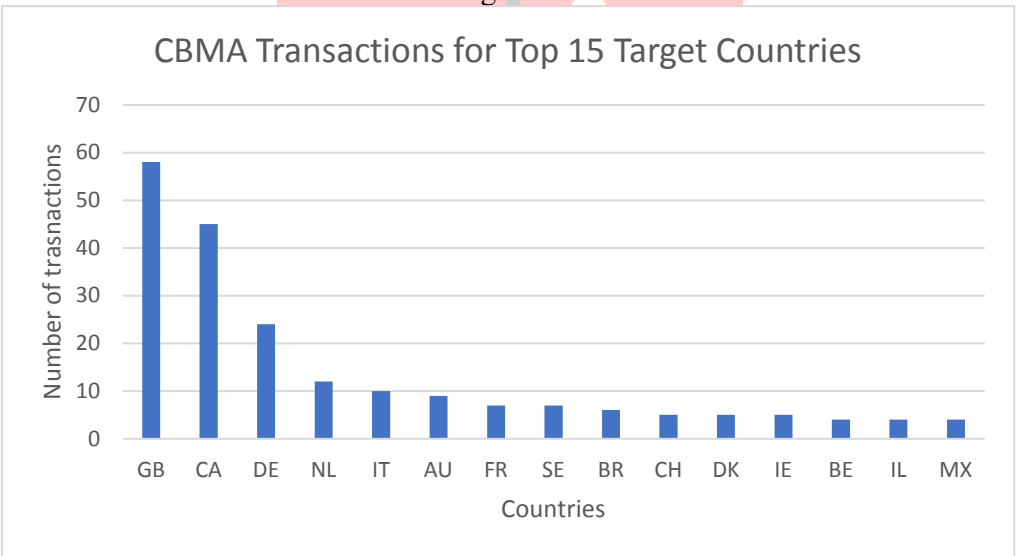

Figure 3

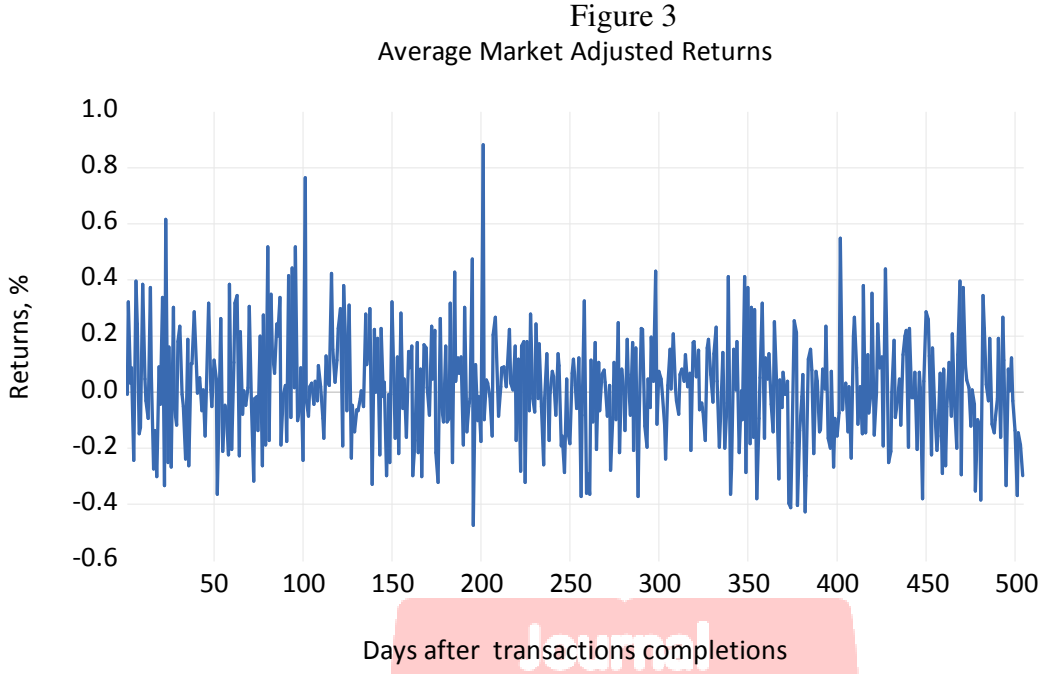

Figure 4

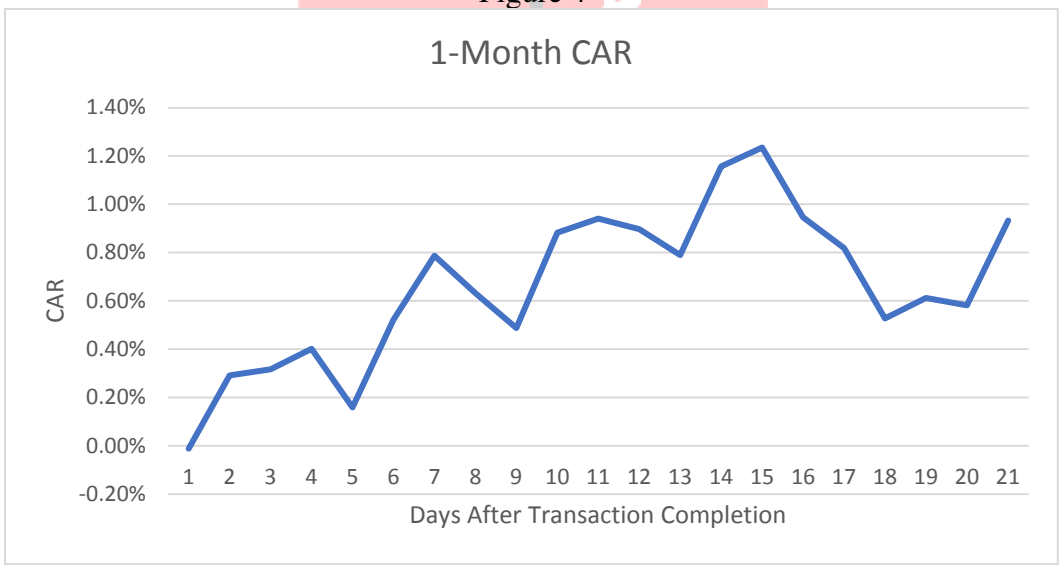

Figure 5