ISTANBUL BILGI UNIVERSITY

INSTITUTE OF SOCIAL SCIENCES

DEPARTMENT OF FINANCIAL ECONOMICS

STOCK PRICE REACTIONS OF TARGET FIRMS TO MERGERS AND ACQUISITIONS IN TURKEY

A THESIS SUBMITTED TO THE GRAUDATE SCHOOL OF SOCIAL SCIENCES OF ISTANBUL BILGI UNIVERSITY

BY

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Supervisor: Asst. Prof. Ebru REIS

JANUARY 2017

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TÜRKİYE'DE ŞİRKET BİRLEŞME VE SATIN ALMALARININ HEDEF ŞİRKETLERİN HİSSE SENEDİ FİYATLARINA ETKİLERİ

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ABSTRACT

The study aims to analyze the effect of mergers and acquisitions (M&As) on target stock price over the period 1991-2014. The public target firms' Cumulative Abnormal Returns (CARs) have been examined for several pre-announcement and post-announcement date event windows. 128 completed M&As that include public target firms and public, private and subsidiary acquirer firms, have been examined with event study. Due to the information leakages, insider trading and difficulties of detecting original announcement date (Hekimoglu and Tanyeri, 2011), it is not possible to evaluate the effects of M&As properly in Turkey. In order to capture the pre-announcement date effects, extend the pre- event windows by 30 days prior to the announcement date. The determinants of target CARs have been examined in both univariate and multivariate analysis for different event windows.

The findings of the analyses show that the M&As create statistically significant CARs around the announcement date. For the event window [-30, 0] that include 31 days (announcement date and pre-thirty days of the announcement date), statistically significant CARs have been observed as well. The CARs of the [-30, 0] event window is larger than the shorter event windows' CARs. This finding may provide support for the argument that the stock market is not efficient in Turkey. In multivariate analyses, the effects of target CARs' determinants are not statistically significant for all event windows. Although the variables (determinants) are statistically significant for the short event windows that around the announcement date, they are not statistically

significant for the longer pre-event window. All findings may support the information leakages, the absence of original announcement date and inefficient stock market argument for Turkey market.

Keywords: Merger and Acquisition, Cumulative Abnormal Returns (CARs), Target firm, Merger waves, Event window.

ÖZET

Bu çalışma 1991-2014 yılları arasında gerçekleşen şirket birleşmelerinin ve satın almalarının hedef şirket hisse senetlerinin fiyatları üzerindeki etkisini incelemeyi hedeflemektedir. Hedef şirketin kümülatif olağandışı getirileri çeşitli ilan tarihi öncesi ve sonrası olay pencereleri için hesaplanmıştır. Halka açık hedef şirketler ve halka açık, özel ve yan kuruluş alıcı firmalardan oluşan 128 adet tamamlanmış işlem olay çalışması yöntemi ile incelenmiştir. Bilgi sızıntıları, içeriden bilgilendirme ve orijinal ilan tarihinin belirlenmesindeki zorluklar (Hekimoglu ve Tanyeri, 2011) nedeniyle Türkiye'de birleşme ve satın almaların yarattığı etkiyi tam olarak incelemek mümkün olmamaktadır. İlan tarihi öncesindeki etkiyi incelemek amacıyla, olay penceresi ilan tarihinden önceki 30 güne kadar genişletilmiştir. Hedef şirketin kümülatif olağandışı getirilerinin determinantları tek değişkenli ve çok değişkenli analizler ile incelenmiştir.

Analizlerin bulguları şirket birleşme ve satın almalarının istatistiksel olarak anlamlı ilan tarihi çevresinde olağandışı getiriler yarattığını gösteriyor. İstatistiksel olarak anlamlı olağandışı getiriler ilan tarihi ve öncesindeki 30 günü içeren [-30, 0] olay penceresinde de gözlemlenmiştir. Bu olay penceresinde gözlemlenen olağandışı getiriler daha kısa olay pencerelerinde gözlemlenen olağandışı getirilerden daha fazladır. Bu bulgu Türkiye'de hisse senedi piyasasının etkin olmadığını ileri süren argümanları destekleyici nitelikte olabilir. Çok değişkenli analizlerde hedef şirket olağandışı getirilerinin determinantları her olay penceresinde istatistiksel olarak

anlamlı sonuçlar vermemektedir. Bu değişkenler (determinantlar) ilan tarihini çevreleyen kısa olay pencerelerinde istatistiksel olarak anlamlı sonuçlar verirken, daha uzun olay pencerelerinde anlamlı sonuçlar vermemektedir. Elde edilen tüm bulgular Türkiye piyasası için, bilgi sızıntılarını, orijinal ilan tarihinin bulunmaması sorununu ve etkin olmayan hisse senedi piyasası argümanını destekleyici nitelikte olabilir.

Anahtar Kelimeler: Birleşme ve Satın Alma, Kümülatif Olağandışı Getiriler, Hedef şirket, Birleşme dalgaları, Olay penceresi.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

INTRODUCTION

M&As were used as a strategy since nineteen century. The M&A activities emerged firstly in U.S. and then spread to U.K., Europe and lastly the emerging countries. The companies use the M&As as a strategy for economies of scale, economies of scope, financial synergies, market power, expanding into new markets, growth and diversifying the risks.

The M&As occurred as waves in the World. There are six waves that started in 1893 and extended over the 2000s. The first and second waves took place mostly in U.S. and with the third wave the M&As spread to Europe. The fifth wave spread to the emerging markets with globalization.

The Turkey M&As emerged in 1987 and increased after 1990. However, the increase was not substantial. After 2000 the M&As became more explicit and surged after 2005. While the European Union negotiation affected the investment decisions of foreign investors, the political stability and reform of economic liberalization also affected the domestic and foreign investors' decisions. The M&As are less risky and less costly than completely new investments. Thus the investors preferred M&As rather than completely new investments.

The wealth effects of M&As are widely studied for developed markets and recently studied for emerging markets. Both in developed and emerging markets the target firms' CARs are larger than acquirer firms' CARs. Generally, the acquirer firms gain negative abnormal returns in U.S.. However for Europe and emerging markets,

generally the acquirer firms' abnormal returns are zero or positively low. The magnitude of the target firms' CARs is significantly changeable for developed and emerging markets. The target firms' CARs are significantly larger in developed markets compared to emerging markets. Moreover the difference of developed and emerging markets' CARs is substantially large for short event windows that include a few days around the announcement date. The M&A related returns are gained prior to the announcement date. Thus it is very difficult to capture all effect of M&As in emerging markets. In order to capture the effect of M&As, pre-event windows are used.

Due to the late emergence of M&As in Turkey, there are a few studies that examine target shareholders wealth effect (Arslan and Simsir, 2015; Hekimoglu and Tanyeri, 2011; Kılıc and Akın, 2008; Yılmaz, 2010; Mandacı 2004). The studies do not analyze the determinants of target firms' return. The study aims to examine the target CARs especially for pre- announcement event windows and also aims to analyze the determinants of target firms' returns. The determinants consist of mostly pronounced determinants that include target, acquirer and deal characteristics. However, some mostly used determinants are not used in this study. For instance method of payment and hostile deals are not used in this study. Because the stock payments and hostile deals rarely occur in Turkey. In my sample, there is not any stock payment and hostile deals. Thus the determinants are not used.

My sample consists of 128 deals that are obtained after the following requirements.

i. The target firm is publicly traded firm on the Turkish Stock Exchange Market(İMKB).In order to examine target return with share price, the firm should be publicly traded.

ii. The target firm should be traded for at least 100 trading days pre-two months of the announcement day. For the estimation window, it should include at least 100 trading days.

iii. The transaction should be announced between 1991 and 2014. There is not enough information for earlier years.

iv. The transaction should be completed. In order to examine short-term effects of M&As after the announcement date.

v. If there are any other M&A transactions that related with the target firm, at least two months should be between two announcement dates of the target. If it is less than two months only earlier deal is added to the sample.

vi. For acquisitions, the acquirer should be acquired at least 30% interest of target firm.

After the limitations, the target firms' CARs are calculated by using event study methodology. The event study method eliminates the need of profitability analysis that based financial analysis and became popular method (McWilliams and Siegel, 1997). The advantage of event study method is that the event study method measures the shareholders' wealth effect before and after an event. After the announcement of the event, the market reacts to the new information and the price is readjusted with the new information. The event study method is based on Efficient Market Hypothesis and suggesting that the share prices do not only reflect the firms' value but also the prospects of profit.

The study consists of four chapter. In chapter one, the definitions, classifications of M&As and M&A motives are explained. In chapter two, the M&A waves of World and Turkey are explained. In chapter three the literature review of target CARs and literature review of Target CARs' determinants are explained. In chapter four the study methodology is explained and the sample is introduced. Then the univariate and multivariate analysis are presented. And lastly, in the conclusion, the findings are evaluated.

CHAPTER 1

MERGERS AND ACQUISITIONS

1.1 Merger and Acquisitions (M&As) and Type of Merger and Acquisitions

1.1.1 Definitions

Merger as argued by Brockington (1986), is "the amalgamation of two or more businesses which were separate". In other words, if the acquirer acquires the entire target, the transaction will be considered as a merger. After the completed merger, only one company remains, the other one no longer exist. If the acquirer buys only part of the target firm interest, then it is considered as an acquisition. Takeover or major acquisition refer to the acquisition of major interest, namely acquisition of target firm control (Danbolt, 1996).

There are three type of integration as the statutory merger, subsidiary merger and consolidation. In a statutory merger, the acquirer buys target's all assets and liabilities. Thus the target no longer exist. This integration generally occurs when the target firm smaller than the acquirer. In a subsidiary merger, the target firm becomes a subsidiary of the acquirer firm. This integration generally occurs when the target firm has a well-known brand. In a consolidation, both target and acquirer firm are no longer exist and create a new firm. The integration generally occurs when the acquirer and target firm have similar size.

1.1.2. Classification of merger & acquisition (M&A) transactions

Hoang and Lapumnuaypon (2007) argue that M&As may be classified in terms of the value chain (horizontal, vertical and conglomerate M&As), relationship (friendly and hostile M&As) or Economic area (domestic and cross-border M&As).

M&A classification in term of value chain

The M&As are classified as horizontal, vertical and conglomerate M&As in terms of the value chain. In horizontal M&A, the acquirer and target are in the same industry and competing firms. The horizontal M&As are done in order to benefit from synergy gains and achieve market power. Moreover, Chunlai Chen and Findlay (2003) suggest that Horizontal M&A surged because of the global industry reconstruction in the poor technological innovations and liberalization.

In Vertical M&A, the acquirer acquires its supplier or client that classified as forward integration and backward integration. If a firm acquires its client or distributor, it is identified as forward integration that moves up the product supply chain. However, if the firm acquires its supplier, then it is identified as backward integration that moves down the product supply chain. The acquirer seeks to reduce its transaction cost and take advantage of economies of scope (Chunlai Chen and Findlay, 2003).

Lastly, in conglomerate M&A, the acquirer and target operate in completely different industries. In spite of no expectation of synergies from this M&A, it is expected to diversify risks and obtain economies of scope.

M&A classification in term of relationship

The M&As are classified as 'friendly' or 'hostile' in terms of relationship (Chunlai Chen and Findlay, 2003). "When an M&A transaction is undertaken in a friendly manner, the board of the target company agrees to the transaction." (Hoang and Lapumnuaypon, 2007). Jenkinson and Mayer (1994) state that when the manager of the target firm initially refuses the acquisition offer, the acquisition turns into hostile.

M&A classification in term of economic area

The M&As are also classified as domestic and cross-border which indicate that the parties of M&A are from same or different countries. If the acquirer firm is operating in the different country, it is referred to a cross-border acquisition. If the target and acquirer operate in the same country, then it is referred to a domestic acquisition.[1]

1.2. Motives of M&As

1.2.1. Synergy gains

Synergy gains may be identified as assuming that all other conditions remain same, the free cash flows that firm is expected to gain with the acquired or merged firm are larger than the cash flows that the acquiring firm gains on its own. The empirical evidences argue the synergy being the common aim of acquisitions (Berkovitch and Narayanan, 1993; Gupta et. al. 1997; Bruce and Christopher, 2000;

[1] The cross-border and domestic M&As are explained in 3.2.1 cross-border section.

Goergen and Renneboog, 2004). Synergy gains' motive consists of operational synergy and financial synergy.

Operational Synergy

Maksimovic and Phillips (2001) suggest that M&As are mostly motivated by seeking efficiency increase. The operational synergies, which are based on efficiency, resulted from the economies of scale and economies of scope. The economies of scale provide higher production with a lower marginal cost which is a common motive for mergers. The economies of scale may emerge in case of a larger and financially stronger firm invests in new technologies that considerably enhance its production process, research and development areas (Tirole, 1988).

With technological development, the economies of scope emerged that producing different two or more than two products in the same place, became to be pronounced as M&A motive. The economies of scope facilitate to generate new productions and services and also offer the products/services to the market by using the advantages of the product development, advanced production process and distribution channel (Yılmaz, 2010).

Financial synergy

The merger of two firms reveals merger of cash flows of these firms and it creates more debt capacity, namely the low cost of capital. Especially, the firms with high growth rate, seek fund in order to proceed the development process. The firms head towards M&As in order to achieve low-cost funds. For the financial synergy gain, the acquirer firm should have the opportunity of achieving low-cost fund more than target firm.

1.2.2. Market Power

The market power is the ability of a firm to raise the market price of a good or service under the competitive conditions. "The market power enhancement related to industry concentration, product differentiation, entry barriers and cost advantages"(Motis, 2007). Market power is regarded as a motive of horizontal mergers. But these kinds of M&As' success depends on the product differentiation that if the products are not differentiated, namely they are perfect substitutes, the horizontal merger is expected to create market power for the acquirer firm. New investors may cause a reduction in the market power of the firm. Thus the sustainable market power also depends on entry barriers that some sectors, such as bank and telecommunication, are regulated against to new investors.

Vertical M&As may also be resulted in market power by acquiring a key supplier of raw materials. By this way, the acquirer firm may exclude the competitor firms which use the same raw materials.

Even though, the M&As are expected to result in market power. Bruner (2002) study which examined the 130 U.S. M&As during 1971- 2001 period, found that the M&As, which occurred in order to increase the market power, are generally failed.

1.2.3. Rapid Growth

The increasing competition, increasing demand, economic conditions, technological developments and managerial hubris induce the firms' growth desire. Hereat, the firms generally seek growth opportunities in their industry and related industry or occasionally in different industries. There are two growth options for these firms and named as organic growth (internal growth) and external growth (M&A). Organic growth is achieved by increasing output and enhancing sales internally. The

organic growth is very costly and risky. Moreover, it presents slow growth. In order to receive a lower cost and more rapidly growth, firms use M&As as a means of growth. Furthermore, there are entry barriers for some industries that restrict new investments. Thus the M&As become a unique option when sectors or industries have entry barriers.

This M&A motive arises in the industries that have excess demand and high competition. The high demand and competition create the growth need and these industries prefer to grow by M&A in order to raise the efficiency of available capacity rather than completely new investment.

1.2.4. Diversification

Diversification motives M&As as industrial and geographic diversification. Both of them in an attempt to reduce the risk. The diversification motive is related to modern portfolio theory which suggests that if a firm diversifies its optimal risk by investing uncorrelated or low correlated instruments, the market value of the firm can be increased (Motis,2007).

When the modern portfolio theory is considered, the acquirer firm may diversify the industrial risk by conglomerate M&As. As a supporting statement, Madura and White (1990) suggest that different features of real assets and financial assets can create diversification benefits. Similarly, the geographic diversification is capable of reducing risk, if the markets of the target and acquirer are not highly correlated. Adler and Dumas (1975) argue that firms benefit from geographic diversification in case of the market not being fully integrated. Fatemi (1984) compared multinational corporations (MNCs) and domestic firms and observed that fluctuation of MNCs returns is lower than domestic firms which is supporting the geographic diversification motive.

1.2.5. Hubris

Shareholders and managers are separated in the big complex corporate firms. The principle- agent theory, which is based on the conflicts between shareholders and managers, occurs as a result of the asymmetric information. The shareholders aim to maximize firm value but managers aim to maximize firm size rather than value. Hayward and Hambrick (1997) management research shows that the acquisition performance is decreased as a result of large premiums[2] in CEO hubris. Malmendier and Tate (2008) suggest that overconfidence of CEOs cause overpayment and decrease the M&As performance.

1.2.6 Deregulation

Deregulation is an external motive which has done national level and international level. As a national level, deregulation is done in order to remove the barriers for more competition. As an international level, several legislations were promulgated in order to achieve greater competition and benefit from diversification in the U.S., and encourage the integration in Europe (Berger *et al*., 1999; Group of Ten, 2004). Mitchell and Mulherin (1996) state that deregulation facilitated the fifth wave which emerged in the 1990s. Moreover, Weston and Chung (1990) argue that numerous M&As were done in the industries with ongoing deregulations.

1.2.7 Globalization

Cross-border M&As are usual and the least risky method for increasing global market power. The U.S. cross-border M&As have been stably increased, because of

[2] Calculation bid premiums is another method of measuring shareholder wealth of M&A on target firm which compares the offer price with target's stock price before the announcement date (Arslan and Simsir, 2015).

the globalization of product markets (Lipton, 2006). Globalization is one of the most significant motives for fifth and sixth M&A waves. Martynova and Renneboog (2005) state that significant proportion of cross-border M&As ensued from the increasing globalization of product, services, and capital markets in the 1990s.

1.2.8 Other Motives

There are some other motives which do not influence the M&A decisions as much as the priorly mentioned motives. These motives as follows; tax consideration, know-how, inefficient management.

Tax consideration motive is considered as reducing the tax on the newly merged firm by the tax losses of the target firm.

Firms may diffuse know – how motive by M&As. Indeed, in some studies, the know-how motive is regarded as a synergy motive. Goold and Campbell (1998) specify synergy with six form which includes know-how motive.

The inefficient management hypothesis asserts that the firms with inefficient management will be acquired by firms that could manage it more efficiently (Berger *et al*., 2000). Thus for inefficiently managed firms, inefficient management may be a driver to increase their efficiency.

CHAPTER 2

MERGER AND ACQUISITION WAVES

2.1. Merger Waves in the World

Mergers and acquisitions emerged at the end of the nineteenth century in the U.S. and then surged as waves (Lipton, 2006). The waves were specified by considering number and value of transactions. When we observe the M&A waves, it is seen that the waves emerged and changed due to the economic cycle and industrial shocks. Harford's (2005) neoclassical explanation of merger waves suggest that;

"Specific industry shocks that require a great extent reallocation of assets, induce the merger waves. Beside the shocks, there must be enough capital liquidity in order to reallocate of assets. The rise of the capital liquidity and reduction in financing constraints is related to high asset values. He concludes the explanation of merger wave as, the merger waves require both an economic motivation for transactions and relatively low transaction costs for generating the large volume of transactions."

Similarly, Rhodes-Kropf and Viswanathan (2004) indicate that the M&As, especially with stock payment M&As, increased as a result of the overvaluation of the firms' share price. This statement shows a positive relationship between the overvaluation and frequency of M&As.

In addition, Toxvaerd (2008) indicates that the external factors such as deregulation, globalization, and the technological developments, make the M&As more attractive by changing the industrial environments and conditions.

The motives of waves are presented in this section for each wave separately. Six M&A waves were observed over the period 1893-2007 and each wave was named with its feature that indicates the density of M&A type or specific industries' M&As (Motis, 2007).

2.1.1. First Wave 1893-1904

The first wave occurred as a result of economic constriction at the end of the nineteenth century that prompted the firms to enhance the market power (Yılmaz, 2010) and reduce the price competition rather than benefit from scale economies (Lamoreaux, 1985). Thus the first M&A wave mostly consists of horizontal mergers in steel, telephone, oil, mining, railroad industries in the U.S.. Due to many small firms being consolidated with horizontal mergers, the wave is called as the merger for monopoly (Motis, 2007). Against to this big monopolies, antitrust laws emerged in U.S. which enacted in 1904. However, the First World War had influenced the first wave to end.

2.1.2. Second Wave 1920s

The second merger mostly occurred as vertical mergers. Both first and second M&A waves took place mostly in the U.S.[3]. Sudarsanam (2003) suggest that execution

[3] Thus vast of M&A literature mostly search U.S. M&As. The early U.S. merger waves documented but reliable documents of UK M&As are available from the 1960s and 1980s for Continental Europe (Martynova and Renneboog, 2005)

of the anti-trust laws led to second merger wave that started in the late 1910s and proceeded through the 1920s. While in the first wave firms were seeking for market power in order to reduce the price competition, in second wave firms had aimed to benefit from scale economies through vertical mergers. Stigler (1950) states that the second wave led an oligopolistic structure that is dominated by two or more giant companies. The second wave continued until 1929, the emergence of Great Depression.

2.1.3. Third Wave 1950s – 1970s

The Great Depression and Second World War frustrated the new third M&A wave. The third wave started in the 1950s and culminated in 1968 and collapsed in 1973 (Martynova and Renneboog, 2005). Although the third wave identified as a conglomerate wave, conglomerate M&As were dominated in the U.S. due to the strict antitrust laws and in the UK mostly horizontal M&As took place (Sudarsanam, 2003). Matsusaka (1996) state that even if the absence of strict antitrust policies, the countries as Canada, Germany, and France also experienced conglomerate M&As in the 1960s. Some studies provide the clarification about the reasons of conglomerate M&As. It is suggested that due to the imperfection in the external capital market (Williamson, 1970), the companies solved the liquidity problem by diversification in order to develop the internal capital market. This diversified companies reduce the risk of bankruptcy (Higgins and Schall, 1975; Shleifer and Vishny, 1992) and reduce the variability of revenues (Lewellen, 1971). However, Ravenscraft and Scherer (1987) could not find the evidence of profitability improvements for conglomerate M&As.

2.1.4. Fourth Wave 1980s

After the crash of diversified firms' stocks, the fourth wave emerged in 1980 and ended up in 1989. Due to M&As mostly occurring as hostile M&As, the fourth wave is also called as disciplinary mergers (Motis, 2007). The wave is triggered by antitrust policy changes, deregulation of the financial service sector, new financial instruments, new markets (junk bond market), and technological advance in some industries (Martynova and Renneboog, 2005). The imperfection of conglomerate integration led to the emergence of the fourth wave. The problems are created by conglomerate M&As, such as rent-seeking by divisional managers (Scharfstein and Stein, 2000) and bargaining issues within the diversified companies (Rajan et al.2000), were expected to be solved by leaving aside the diversification and focus on core business. Additionally, some failed companies of diversification were restructured by hostile riders.

Due to the economic, technological, and regulatory changes in the 1980s, the external market became more efficient and it resulted in less requirement of the internal capital market which was a motive for diversification (Bhide, 1990). The decrease of conglomerate M&As is considered to be a result of the inefficient internal capital market (Lang and Stulz, 1994; Berger and Ofek, 1995).

2.1.5. Fifth Wave 1990s

The fifth wave emerged in 1993 and continued until the equity market collapse in 2000. The globalization process, deregulation, privatization, technological development, and financial market expansion promoted the fifth wave (Martynova and Renneboog, 2005). According to Mitchell and Mulherin (1996), the most prominent motives in this wave were deregulation and privatization. Andrade et. al. (2001) allege

that the other prominent motive was the internet revolution. Banking, Financial Services, Telecommunications, Entertainment, Media and Technology industries were dominated industries in this wave (Motis, 2007). Most of the deals' payment methods are stock payment and generally the acquirer and target firms are in the same industry (Andrade et al., 2001). According to Thomson Financial Securities Data, while 119035 M&A deals were registered in the US, 116925 deals were registered in Europe. When we compare such a substantial wave with the fourth wave, only 34494 and 12729 deals occurred in the U.S. and Europe respectively (Martynova and Renneboog, 2005). Asian M&As also emerged and as a result of globalization, cross-border M&As largely increased in the fifth wave. While the horizontal and vertical M&As were increasing, it decreased the proportion of diversified M&As. Moreover, the hostile bids decreased. Martynova and Renneboog (2005) state that the decrease of hostile M&As may be a result of regulatory changes and also bull markets which indicate that target shareholders more likely to approve lower bids when their shares overpriced. Although the hostile M&As decreased in the U.S. and the UK, it increased in Continental Europe. More interestingly, it emerged in the countries with no experience of hostile M&As in the 1980s (Martynova and Renneboog, 2005).

2.1.6. Sixth Wave 2003- 2007

The sixth M&A wave emerged in 2003 and continued until 2007. The collapse of the sixth wave is attributed to the mortgage crisis which emerged in U.S. and spread around the World. The M&As during the sixth wave induced by the globalization, encouragement by the governments, the availability of low-interest financing, and hedge fund (Lipton, 2006). Martynova and Renneboog (2005) state that the wave started with the recovery of the economy and financial market which collapsed in

2000. And mostly it is motivated by the presence of abundant liquidity (Alexandridis et. al., 2012). Alexandridis et. al., (2012) which studied sixth merger wave, state that acquirers are less overvalued relative to target firms in sixth merger wave and the market for corporate control was less competitive. they also state that acquirers were less acquisitive. Malmeinder and Tate (2008) suggest that the managers were less overconfident. Thus fewer premiums and returns occurred for target firm in the sixth wave compared to the fifth wave. Alexandridis et. al., (2012) suggest that the cash payments took place in 2003-2007 (sixth wave) in contrast to the 1990s (fifth wave). This is a result of less overvalued acquirer firms relative to target firms.

2.2. The M&A Activities in Turkey

2.2.1. The M&A Waves

The M&A activities emerged lately in Turkey and in other emerging countries compared to the developed countries. The first, second, third and fourth M&A waves, which were mentioned previously, have not been effective in Turkey, meanwhile the fifth and sixth waves spread around the emerging markets. This spread is attributed to the globalization. The globalization of markets and industries affected the economy globally over the past 25 years. Lifting the trade barriers, cost reduction of international trade and communication, common financial market effect and the reforms promoted the globalization (Wiersema and Bowen, 2008). While the globalization increased the cross-border M&As around the world, it brought with an effective competition process for international competitors. Due to the rugged competition conditions, the firms seek to achieve economies of scale and scope (Wiersema and Bowen, 2008).

Although the Turkey M&As emerged in 1987, the number of the deals are very few to analyze properly. Indeed the M&As emerged with the fifth wave in Turkey as a result of globalization and technological development. Turkey M&A waves are specified according to M&A frequency and economic progress. Due to the late emergence of M&As, there are a few studies about M&As in Turkey literature. Thus sources are scarce about Turkey M&A waves. Akdoğu (2011) studied Turkey M&A waves between the period 1988-2008 and presented M&As with the number of observations and value of them for each year. The specified waves in Akdogu's study are in line with my study.

Figure 2.1 presents the M&As distribution on yearly basis. Even if the M&As emerged in 1987 and became more explicit after 1990 in Turkey, there are a few deals during the 1990s. However, after 2000 the number of M&As significantly increased. When we analyze the period of 2000-2001 which indicates Turkey Financial Crisis, only 145 M&As were announced. During 2002-2004 which indicates the crisis recovery period, only 98 M&As were observed. In addition, 85 deals were announced in 2005. After 2005 the increase of M&As became more significant. Thus the periodic increase of M&As implies M&A waves. Figure 2.2 presents the distribution of the completed M&As between 1990 and 2014 by these periods. When analyzed the M&As during the 1990-1999 period, there are only 200 M&As that correspond to 10% of all completed M&As during 1990-2014. There are 1796 M&As between 2000 and 2014 which implies that actually, M&As surged after 2000 in Turkey. The completed M&As, which are announced during 2000-2004, constitute 15% of total completed M&As during 1990-2014. Moreover, 75% of M&As were announced between 2005 and 2014. Additionally, the highest number of M&As are observed in 2013.

When M&As are analyzed in terms of deal value, it is seen that the completed M&As that were announced after 2000, constitute a great majority of total deal values between 1990 and 2014. According to the study of Akdogu (2011), the total deal value of M&As, which were announced during 1988-2014, is 187 billion dollar and 163 (87%) billion dollar belongs to the deal that announced after 2000. Moreover, 137 billion dollar of the 163 billion belongs to the M&As which were announced between 2005 and 2008. Also, emphasized that even the deal number of 2000 is lower than deal numbers of 2001, the total deal value of 2000 is higher than the total deal value of 2001.

Figure 2.1: Number of M&As on Yearly Basis

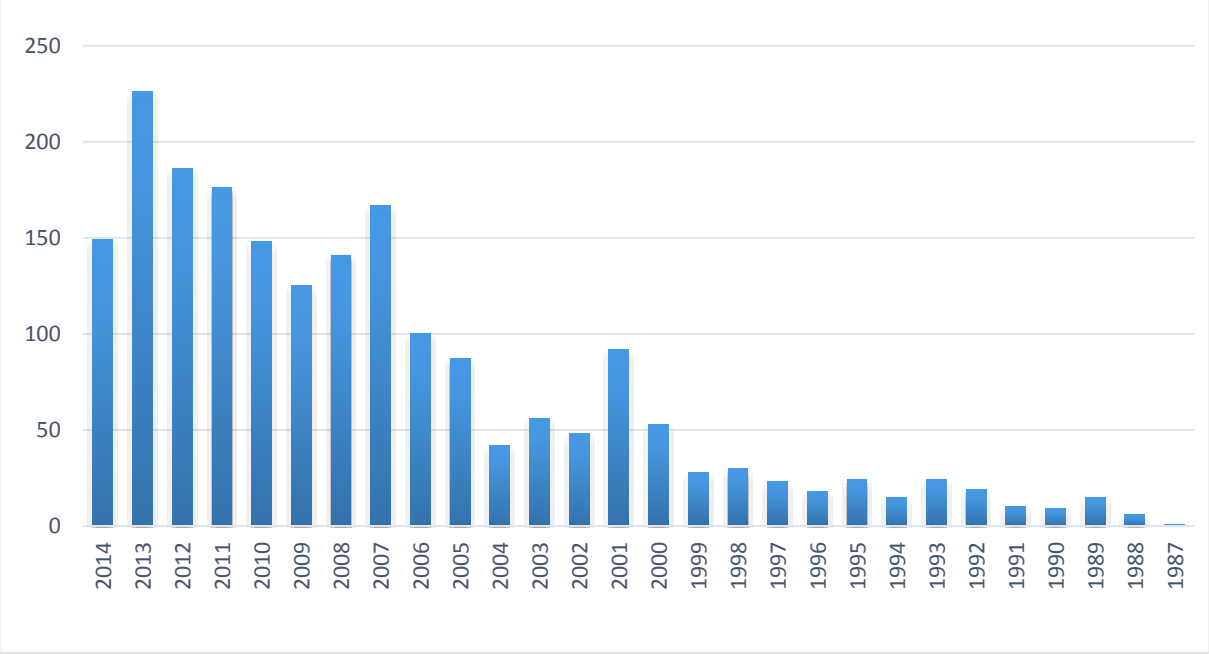
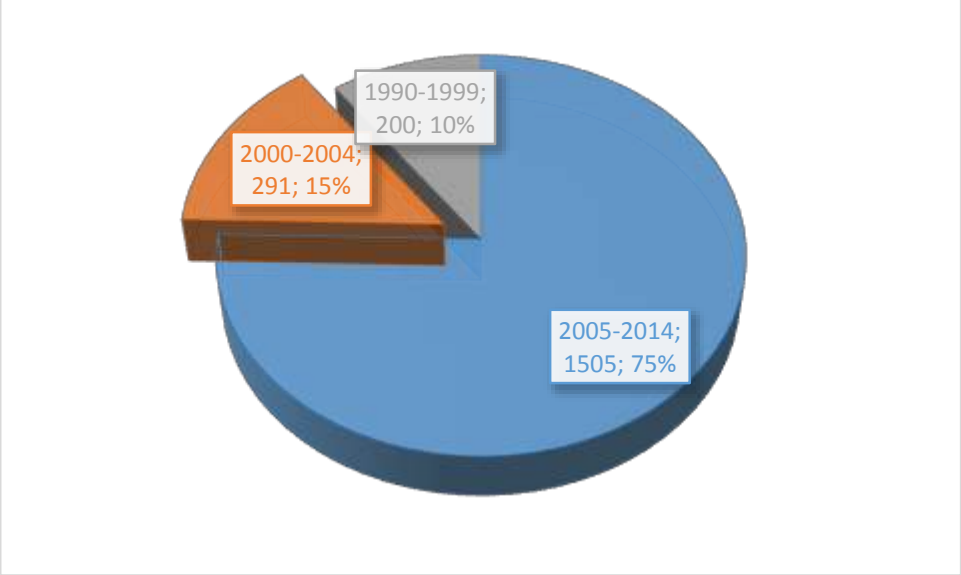


Figure 2.2: The Distribution of M&As Between 1990 and 2014



2.2.2 The Industrial distribution of Target and Acquirer Firms

Figure 2.3 presents the mostly observed eleven industries of target firm between 1990 and 2014. The 1028 deals of total 1996 completed deals are with the target firms of these eleven industries. Namely, the industries are the most active industries. The industries of Power and Food & Beverage are most active industries with 158 and 155 deals respectively. The industries of Metals & Mining, Transportation & Infrastructure, and Banks are also mostly observed industries between 1990 and 2014.

Figure 2.4 illustrates the mostly observed eleven industries of acquirer firm between 1990 and 2014. The Other Financials is most active industry but actually, it does not represent an industry. The Other Financials include investor groups, personal investors, holdings and investment companies. Due to these acquirer firms being regarded as other financials, the deal number of Other Financial industries are larger

than other industries. The Food & Beverage, Metals & Mining and Power are also mostly observed industries between 1990 and 2014.

Figure 2.3: Industrial Distribution of Target Firms

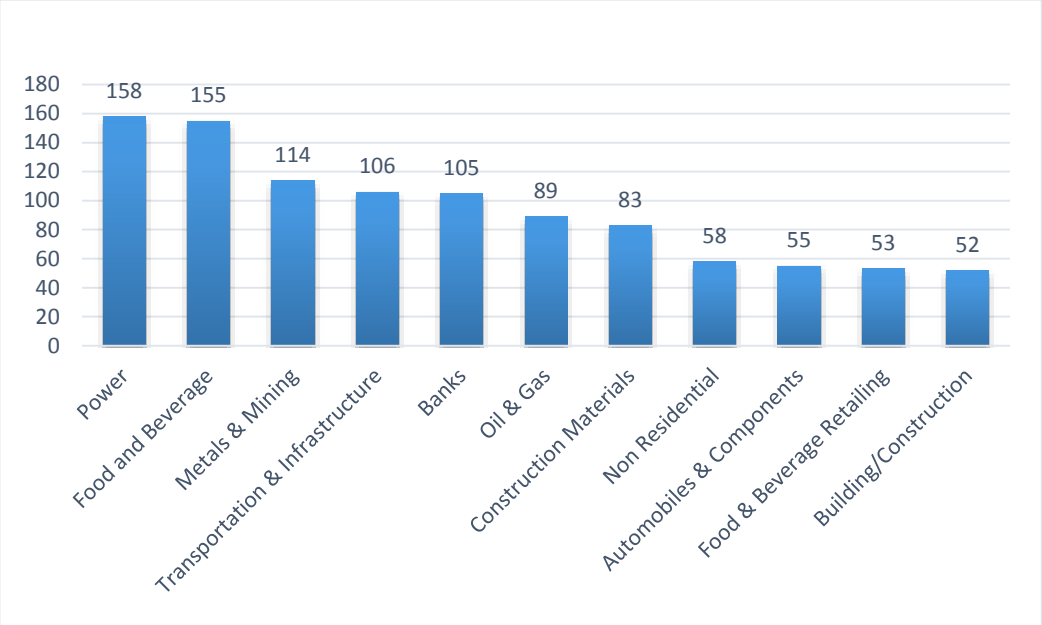
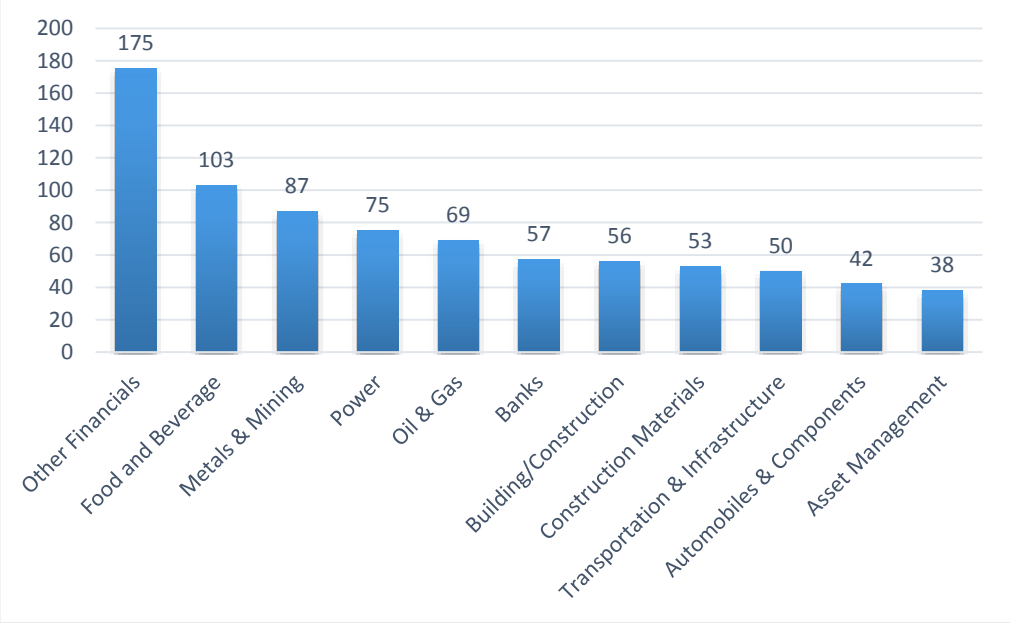


Figure 2.4: Industrial Distribution of Acquirer Firms



2.2.3. The Features of the M&A Wave Periods

The M&A waves did not remain only in the U.S and Europe and spread into emerging markets. The spread is associated with globalization. But as mentioned priorly, Turkey M&As surged in the 2000s.While Akdogu (2011) points out two wave between 1988 and 2008, I observe the increase in 2013 due to observing wider period in the current sample.

Firstly, when 2000-2001 period is analyzed, the mergers of the firms, which attend to recover after 2000 financial crisis in Turkey, indicate a negative shock effect. In fact, the lower deal value of 2001 compared to 2000, may be a result of this shock effect. A more clear expression, the small target firms that were badly affected by the financial crisis, were acquired in 2001. As a result of the small firm acquisitions in 2001, the total deal value of 2001 deals decreased.

After this period, more apparent wave emerged in 2005 and increasingly continue towards 2014. After the dot-com crisis, world markets recently recovered in 2003 and the sixth merger wave appeared. In spite of the sixth wave effect not being so rapid, it is seen in Turkey after 2004. More importantly, the political stability, reform of economic liberalization and entering into negotiations of the European Union full membership induced the M&A wave in Turkey.

After 2008 Global Crisis the M&A decreased and again start to increase after 2010. The increase became more apparent in 2013. The increase that occurred in 2013 is clarified by Earns and Young 2013 M&A report as while the developed economies' growth rates remain limited, Turkey growth rate outperforms the previous growth rate that attracts the foreign investor. Moreover, according to Earns and Young report the increase of credit rating by independent credit rating agency, not only influenced

money market and short-term economic indicators but also it strengthened Turkey in term of medium and long-term investments which directly related to M&As.

CHAPTER 3

LITERATURE REVIEW

3.1 Literature Review of Target CARs

When viewing the literature, both target and acquirer firms' returns that occurred before and after the announcement date, are generally analyzed by CAR method. In these analyses, different long- short event windows, estimation periods and methods are used. Some of these studies analyze the completed M&As as I do, while some of them analyze all deals irrespective of it completed. Unlike my sample, U.S., UK, Europe, emerging market and Asia studies have the large sample size and thus it is possible to observe more significant results.

The vast of studies search U.S., UK and developed markets. First of all, we present the developed markets starting with U.S. and then emerging markets' studies are presented.

3.1.1 Developed Markets

As an earlier study of U.S. mergers by Andrade et. al. (2001) evaluated merger waves between 1973 and 1998. They distinguish the period as 1973-1979, 1980-1989 and 1990-1998 and examine the stock reaction for 3 days [-1, +1] and 21 days [-20, 0] event windows. They found 1.5% and 0.1% average CARs for 1973-1979 wave in these [-1, +1] and [-20, 0] event windows respectively. The average CARs are

evaluated as 2.6% and 3.2% for 1980-1989 period and 1.4% and 1.6% for 1990-1998 period for the event windows respectively.

The other earlier U.S. M&A study Swenson(1993) that investigate U.S. targets' CARs between 1974 and 1990, found highly abnormal returns in -1 and 0 (one day prior the announcement day and announcement day) event days but not for -20, -15, -10 event days (20, 15,10 days prior the announcement day).

The other more recently study for U.S. M&As studied by Kıymaz and Baker (2008), displayed 12.55% average CAR for [-1, 0] event window and 11.45 % for [-30,-1] event window. The findings indicate that the shorter event window CARs are higher than longer event window. However, there is not a too large difference between two event windows' average CARs.

Kyei-Mensah (2011) investigates abnormal returns of U.S. targets and bidders over the period 1988-2008. The research based on different estimation methods such as the method CAPM which I use for this study. The methods are standard CAPM model, Fama and French three-factor model and Chart four-factor model within OLS-GARCH estimation method. The pre and post- announcement returns are evaluated 20 days prior and 20 days after the announcement date and results of standard CAPM within OLS estimation method are 0.383%, 5.231% and 5.109% for [-20, -1] , [-1,+1] and [0, +1] event windows respectively. The highest returns are evaluated for the announcement and the next day. After the announcement date, the abnormal returns diminish and become negative.

Alexandridis et al. (2011) analyzed completed M&As of U.S. that announced between 1990 and 2007. They distinguish the target firms as small, medium and large

target firms and found respectively 24.46%, 19.76 and 16.74 significant average CARs for [-1,+1] event window.

As an early UK M&A study Archbold (1998) researched UK M&As between the period 1980-1990 and found insignificantly 0.6% average CAR for [-30, 0] event window. Moreover, larger event windows are used in this study as [-80, 0] and the average CAR is evaluated as 1.5% for this [-80, 0] largest event window

Danbolt (1996) analyzed the UK cross-border and domestic acquisitions between the period of 1986 and 1991 with quite large event windows as 8 months prior and 1 month after the announcement date. Through this analysis, cross-border UK acquisitions resulted in significantly positive returns for [-2, +1] event window which indicates 4 months. In addition, the highest abnormal returns are evaluated for the announcement month. But for the remaining prior months, the abnormal returns are observed as negative. However, for the domestic UK acquisitions only for [-1, 0] event window, which indicate two months, significantly positive abnormal returns are evaluated.

Campa and Hernando (2004) investigate M&As of the firms that are registered in the European Union over the period 1998-2000. They found 5.72%, 5.30% and 3.93% Cumulative Average Abnormal Returns (CAARs) for [-60,-1], [-30,-1] and [-1, +1] event windows. They also evaluate positive CAARs for acquirer firms.

The research of Martynova and Renneboog (2011) for Continental European and the UK, M&As during the fifth takeover wave (1993-2001) evaluated positive significant CARs for both target and bidding firms. For [-1, +1] event window the target average CAR is 12.47% and 0.72% for bidder. For the larger [-40, -1] and [-

60,+60] event windows, target average CARs are 11.49 and 26.70% and the bidder average CARs are 0.39% and -2.83% respectively. They also found higher CARs for UK target firms than Continental target firms.in

The research of Craninckx and Huyghebaert (2011) which examines European completed acquisitions between the period of 1997-2006, found significantly 6.12% , 7.57%, 15.65% and 17.47% target average CARs for [-1,0], [-1,+1], [-35,+1] and [-50,+1] event windows respectively. They also found positive low CARs for acquirers.

Borges and Gairifo (2013) investigate four European countries (Belgium, France, Netherlands, Portugal) from 2001 to 2007. They found significantly 14.76 % average CAR for [-1, +1] event window and for [-30, -2] event window the average CAR is 4.31% that shows most of the returns occurred around the announcement date.

3.1.2 Emerging Markets

As an emerging market study, Mann and Kohli (2011) investigate the domestic and cross-border acquisitions' effect on shareholder's wealth over the period 1997-2008 in India. They extend their analysis to 50 days prior to 30 days after the announcement date. For the domestic acquisitions they observed -1.56%, 6.33%, 8.26% CAARs for [-50, -41], [-20, -11] and [-1, +1] event windows respectively. The results of the cross-border acquisitions are as 1.32%, -1.70% and 5.33% for the same event windows. The highest and significant CAARs are gained around the announcement date for both domestic and cross-border acquisitions.

When we evaluate emerging markets, Arık and Kutan (2015) researched twenty emerging market M&As between 1997 and 2013. They evaluate the return

reaction over 30 days prior the announcement date and found 9.56%, 5.17% and 3.90% CARs for [-30, +1], [-1, +1] and [-1, 0] event windows respectively.

Sehgal et al.(2012) investigate the BRICKS market (Brazil, Russia, India, China, S.Korea, South Africa) stock returns over the period 2005-2009 and found 2.07% and 1,95% CAR for [-20, +20] and [-1, +1] event windows respectively. They evaluate the effect separately as well and while India, Russia, S.Korea, China have positive abnormal returns, Brazil and S. Africa have negative abnormal returns during the 20 days pre-announcement date period.

Wong and Cheung (2009) study examined the effect of Asian M&As (China, Japan, Hong Kong, Singapore, South Korea and Taiwan) on target and bidding firm return over the period 2000-2007. They include all M&As in either case completed or not. They evaluated insignificantly -2.5%, -0.24% and -5.2% CAARs for [-50,-2], [-1, 0] and [+1, +50] event windows respectively. These results are contrary to literature. Interestingly, the bidders' CAARs are significantly positive for [-50,-2] and [+1, +50] event windows and significantly negative for [-1, 0] event window. They state the reason of negative target CAARs as speculation that the target stock had bought before the observed period by investors and speculators and the stocks are sold back in case of deal failure. Pop (2006) found insignificantly low CAARs for Romania acquisitions and used the estimation methods as market model and trade to trade model which considers infrequent trading (Maynes and Rumsey, 1993).

There are a few M&A studies that examine the shareholder wealth effect in Turkey (Arslan and Simsir (2015), Hekimoğlu and Tanyeri (2011), Kılıç and Akın (2008), Yılmaz (2010)). Turkey M&As are examined as an emerging market in some

studies as well (Rossi and Volpin (2004), Arık and Kutan (2015)). Some of the few studies that are also similar to my research as follows.

Çakır and Gülcan (2012) examine the market reactions of Turkey non-financial M&As and found positive returns. Due to the early pre-announcement returns, they state that the Turkish market is inefficient.

Arslan and Simsir (2015) measured the takeover premium of cross-border Turkey M&As over the period 2005-2011. Their study is based on detecting the original announcement date. They argue that the announcement dates, which SDC database presents, are not a proper benchmark for measuring the returns. They studied the sample in detail and specified the original announcement date (ODA). Then they measure the bid premium estimates for both ODA and the SDC announcement date and found that the bid premium estimates of SDC announcement date are lower than the bid premium estimates of ODA. They also measured target CARs for ODA and the SDC announcement date. They found 2.5% and 5.5% average target CAR for [-1, +1] event window of ODA and the SDC announcement date respectively. This finding shows that the announcement dates, which SDC database serves, prevent observing the actual returns/market reactions.

Hekimoglu and Tanyeri (2011) investigate the non-financial target firms' returns over the period 1991-2009. They found that Turkish targets gain 8.56% average CARs for [-1, +1] event window in case of the bidders get the control rights and 2.25% if the bidders acquire low interests.

Consequently, the literature shows that the CARs of target firms are higher in developed markets than emerging markets. In some studies, the developed markets' early pre-announcement date target CARs are also higher than emerging market early

target CARs. Moreover, the emerging market early pre-announcement CARs are higher than the shorter event windows' CARs that occurred around the announcement date. Thus target firms' CARs are more observable in developed markets compared to the emerging markets. In emerging markets, it is very difficult to observe and evaluate the real effect of M&As.

3.2 Determinants of Target Abnormal Returns

3.2.1 Cross-border

Cross-border acquisitions are substantially increased around the world as a result of deregulations and globalization (Danbolt and Maciver, 2012). Evenett (2003) state that cross-border acquisition activities have increased by the end of the 1990s. Furthermore, the 80% of all foreign direct investment in industrialized markets consist of cross-border mergers (Conn et al., 2005). Arık and Kutan (2015) researched whether any change occurred on abnormal returns during the post-2008 crisis which is resulted in the substantial monetary expansion in advanced economies. The monetary expansion affected the global liquidity and by extension of international financing opportunities which including cross-border acquisitions in emerging markets. The developed countries might have been seeking the growth opportunities out of their markets through the emerging market investments in order to pursue their competitive advantage while obtaining diversification benefits. (Grave et. al. 2012)

As a consequence of the cross-border acquisitions' increase, the question arisen whether cross-border acquisitions have an effect on target and acquirer returns or not.

In other words, whether cross-border acquisitions' wealth effects significantly differ from domestic acquisitions or not.

First of all, I present the studies about the cross-border acquisitions from developed countries. The research of Danbolt and Maciver,(2012) which including 251 UK acquisitions over the period 1980-2008, found that cross-border acquisitions create significantly higher returns 10.1 percentage points over 3-day event window. In addition, they found that target's gains are significantly higher in cross-border acquisitions compared to domestic acquisitions in case of bidder's country has higher accounting quality, anti-director rights or level of shareholder protection. Goergen and Renneboog, (2004) analysis of European acquisitions over 1993-2000 shows interesting results which domestic M&As create higher results than cross-border M&As. This result is not consistent with foreign direct investment (FDI) theories which provide that foreign bidders create larger gains as a result of the benefit from imperfections in factor and capital markets. According to this theory, cross-border acquisitions are expected to result in higher returns, due to the higher premiums. Georgen and Renneboog also used country dummies in order to show target location effect. Indeed the dummies display the institutional differences. Additionally, they found higher returns for the UK, German, Austrian and Swiss target firms. But for France, the Benelux countries and Southern Europe target firm dummies have not resulted in higher returns. This result indicates the institutional differences, takeover regulation, protection of shareholder rights, and informational transparency. The research of Conn and Connell (1990) which studies over the period 1971–1980 and the research of Feils (1993) over the period 1980–1990 examine cross-border acquisitions between UK and U.S., and found the wealth effect for U.S. target firms is

significantly larger than the UK target firms (40% versus 18% in the study of Conn and Connell and 26% versus 16% in the study of Feils). Harris and Ravencraft (1991) state that due to the factor and capital markets are not being segmented internationally, the domestic acquisitions do not differ from cross-border acquisitions. Bertrand and Zitouna (2008) investigated the effect of M&As on French manufacturing target firms' efficiency and found that the efficiency gains are stronger in cross-border M&As.

Rossi and Volpin (2004) investigated the determinant of cross-border M&As through forty-nine developed and emerging countries. They identified the determinants as accounting standards, shareholder protection, takeover regulations, laws, common law, the log of GNP per capita, market return. The important finding of this study with regards to our study is the frequency of M&As between two countries being related with their investor protection differences. In other words, according to this study, acquirer generally from the countries that with better accounting standards and shareholder protection than target countries. Moreover, they state that the cross-border M&As increase the target company's shareholder protection. However, their examining of takeover premiums shows that shareholder protection differences are not a significant determinant on takeover premiums. However, cross-border deals significantly create average 3% premium increase.

When examining emerging markets, Arık and Kutan (2015) study with twenty emerging markets, observed positive insignificant effect for cross-border acquisitions on emerging target firms which is consistent with our study.

As a conclusion, the studies of cross-border effects on target gains are generally insignificantly positive for both the emerging and developed markets.

3.2.2 Industry Relatedness

The industry relatedness and degree of it between acquirer and target firms is mostly pronounced and associated with abnormal returns of M&As. Same industry or focus oriented acquisitions' main reason is synergies which mentioned in detail in M&As motives section (1.2.1.). Because of the economic scale, cost reductions, and related bidders well knowing about underperformance and inefficiency makes the deal more likely create positive gains.

The diversity and chaos of diversified firms may resulted in a decline in efficiency of the internal capital market with relative to the external markets (Stulz, 1990; Matsusaka & Nanda, 1997; Rajan *et al*, 2000). Although the general belief is management conflicts increase and result in inefficiency and hence decrease in returns, some studies present evidence that the diversified acquisitions create additional abnormal returns on target returns than the related acquisitions. Generally, this effect is clarified with aggressive biddings of unrelated firms as a result of agency cost (Flugt, 2009). Furthermore, diversified acquisitions are alleged to diversify the risk which is arisen from industrial waves and economic cycle (Tao, 2009).

Martynova and Renneboog (2006) studied with 2.419 takeovers which include 861 unrelated takeovers of Europe over the period 1993-2001, found that unrelated takeovers significantly created 2.4 % higher return on target shares than related takeovers. They state the reason likely to be aggressive bid and willingness of bidders to overpay for the unrelated target. Tao (2009) investigated 310 acquisitions in the UK between 1994 and 2006 and found that unrelated acquisitions' returns are insignificantly higher than related acquisitions in both event windows [-20, +20] and

[-1, +1]. Flugt (2009) studied with 288 deals in the European Union over the period 2000-2008, found insignificantly focused (related) deals' returns larger than diversified deals. Kıymaz and Baker (2008) investigated the short-term effect of large M&As of U.S. public targets from *1989 to 2003* and found positively insignificant result for related acquisitions.

Arık and Kutan (2015) studied with twenty emerging markets over the period 1997-2013 and did not observe a significant effect of relatedness of firms in M&As which is consistent with my findings.

Consequently, the findings of industry relatedness effect on returns are mix and there is not any exact expectation about it.

3.2.3 Firm Size (Market Capitalization of Target Firm)

In the literature, target firm size is controlled separately or as relative size which is formulated as acquirer firm size is divided by target firm size. Relative size is used to examine both of the firms' effects on returns. The studies, which used target size to observe size effect on returns, show generally negative relationship between target size and abnormal returns. In other words, smaller targets create larger abnormal returns. These results may have occurred as a result of valuation problems. Dong et al. (2006) state that the targets that get lower bid premiums or abnormal returns are highly-valued. Suggesting that large target firms are more highly-valued, the negative effect may be attributed the firm valuation as a solution to the valuation problem. The other reason of negative relationship between target firm size and abnormal returns may be fewer competitions for large firms namely scarce potential acquirers (Gorton et. al. 2009). Alexandridis et. al. (2011) state that acquirers pay lower premiums for larger target firms. The negative correlation between target size and premiums is valid

after controlling other determinants of premium. They also state that large targets lose value over the long period and result in less synergy gains. But small targets create positive returns for the shareholders. Danbolt and Maciver (2012) research, which investigates the cross-border domestic acquisitions, shareholder wealth effect, and firm size effect, found that target size effect on CARs is significantly negative. Campa and Hernando (2004) research of European Union acquisitions over the period 1998-2000, found higher target abnormal returns when the target is small relative to bidder size. Rossi and Volpin (2004) research which include Turkey as well over 1990-1999, found that target size affects premiums significantly negative.

Kuipers et.al (2009) study that investigates the cross-border takeovers for U.S. targets during the period of 1982-1991, found that targets' returns are significantly higher in a condition of the target firm larger than the acquirer firm. The significant result is not valid when they add other variables, but still, the coefficient is positive.This finding contradicts the literature.

Consequently, the target size effect on returns is mostly negative in the literature.

3.2.4 The Experience of Acquirer Firm

Experienced acquirer is generally pronounced as experienced acquirer, frequently experienced acquirer or frequent acquirer in the literature. Generally, the acquirer experiences pre and post effect are evaluated for acquiring firm not for target firm. Thus there are a few empirical studies about the experienced acquirer effect on target returns which indicate that target firms gain higher returns in case of the

acquirers have prior experiences (Dunne and Ndubizu 1995; Malmendier and Tate 2008).

The positive effect of acquirer experience on target return most probably result from the belief of the experienced acquirer's success. Power (1982) state that the prior experience of the acquirer is a substantial predictor of the further acquisition's success. Paine and Power (1984) indicate that companies need experience for successful acquisitions. Besides, the positive market reaction to the experienced acquirer may ensue by well knowing about acquirer firm. Fuller et al. (2002) state that because of the frequent corporate activities of the experienced acquirer, the frequently experienced acquirers are more likely to bring out information about their firm characteristics to the market. Thus the market reactions to experienced acquirers differ from inexperienced acquirers. Other reasons for the positive effect may be the acquirer organizational experience and detecting more efficient targets (Vermeulen and Barkema, 2001). The more efficient target decision more likely to resulted in post-acquisition success for acquirer firm. As a post-acquisition performance, the process of adaptation and organizational performance of the experienced acquirer probably better than the inexperienced acquirer.

The study of Dunne and Ndubizu (1995) presents that the target shareholders gain more wealth when the acquirers have prior experience in U.S. market. Positive wealth effect may be explained by "The Managerial Hubris Hypothesis" suggested by Roll in 1986, allege that the value destroys of acquirer firm is caused by the optimistic managerial behavior. Suggesting that the management of experienced acquirer take into consideration the previous experience rather than the current one. Due to the optimistic belief and overconfidence, overpayment to the target occurs or higher

leverage for paying following acquisitions (Moeller et al. 2004; Malmendier and Tate, 2008). Conn et al. (2004) also assert that the following acquisitions are likely to be value destroying. Billett and Qian (2008) state that overconfidence may deflect the acquirer decision. There are several studies that provide evidence of hubris such as; Bruner (2002), Hietala et al. (2003), Malmendier and Tate (2003), Billett and Qian (2008), Doukas and Petmezas (2007).

Contrary to the studies, the M&A experience of acquirer may cause lower target abnormal returns or premiums in that the experienced acquirers probably manage the bidding process better than inexperienced acquirers. Thus experienced acquirers may not overpay.

In conclusion, general belief and expectation of experienced acquirer effect on target firm returns are positive.

3.2.5 Bank M&As

Banks are usually analyzed separately rather than use as a variable in general analysis. Bank M&As examination studies are much available in the literature. These studies generally investigate the efficiency effect of bank M&As in the long run. There are short-run effect analyses which examine the announcement effects on returns as in my study. In general, financial targets are examined separately due to the reaction differences or financial target dummies/heavily regulated industry dummies being used in order to observe their effects separately.

The policies for reconstruction of the banking industry are regarded as M&A motives in the belief of stability improvement in the financial system of emerging countries (Hawkins and Mihaljek, 2001). Thus bank M&As are expected to create

performance improvement in target banks. According to Du and Sim (2016) study which analyze the bank M&As in China, India, Indonesia, Malaysia, Russia, and Thailand over 2002-2009, found that while target banks improved their efficiency, no efficiency improvement is observed for acquirer banks.

Cros border bank M&As are regarded as driven by regularity arbitrage and bank consolidation (Karolyi and Taboada, 2015). Karolyi and Taboada (2015) state that the regularity differences of the bank between countries promote bank M&As. For value maximization to shareholders, acquirers home countries' regulations should be costly. And targets may benefit from the acquirers that from the countries which have strong supervision. In other respects, regulatory arbitrage may be value destroying when target firms are from countries with loose regulation and weak supervision. As a result of regulatory arbitrage, the cross-border bank M&As are generally done by countries with stronger supervision, more restrictions on bank activities and more strict capital requirements. Target banks' abnormal returns are positive and significantly higher when acquirers from countries with strong supervision and higher regulatory quality (Karolyi and Taboada, 2015).

Kıymaz and Baker (2008) classified bank as heavily regulated industries in their study which examine larger M&As in U.S. between 1992 and 2000. They analyze bank within heavily regulated industries and found positively significant result. They also state that the target firms from heavily regulated industries are expected to get larger gains than less regulated industries. Due to the belief of acquirer would increase the performance of target after the deal. Thus they are likely to overpay which resulted in larger gains for target firms.

Scholtens and Wit (2004) research investigates the short-term wealth effect of bank mergers of U.S and Europe over the period 1990-2000. While U.S. bank bidders' CARs are insignificantly negative (−1.86%), the CAR of target bank is significantly positive (12.65 %) for [-3, +31] event window. For Europe, the target bank CARs are significantly positive (9.28%) as well. However, bank bidders' CAR is insignificantly positive (2.56%). The difference of bank target CARs for U.S. and Europe is insignificantly large.

In conclusion, bank M&As generally create positive abnormal returns for target firms which are consistent with the findings of my study.

3.2.6 Private vs Public Acquirers

In the literature, the targets' and acquirers' status are observed as public and private firm. In my sample, there are also subsidiary acquirer firms. In the literature generally, subsidiary target firms are examined not the subsidiary acquirer firms. Thus there is no supportive and explanatory paper or study about it. The subsidiary acquirers are regarded as private acquirer in some studies (Betton et al., 2009).

After the increase of private equity firms' M&As, the acquirer status became a determinant of abnormal returns. Bargeron et al. (2008) suggest that 15% of the total deal value of U.S. M&As consist of private acquirers in 2005. They state that recently academic and press studies emerged with the increase.

Due to the public firms being traded in the market, the M&A related reactions differ for public and private acquirers. Moreover, the market has more knowledge about the publicly traded firm than the private firm. Therefore, the market reaction to acquisitions by the public and private acquirer differs. Bargeron et. al. (2008) and

Bauguess et. al. (2009) study are quite comprehensive about the reasons for the different effect of the acquirer status. They state one of the reasons as synergy gains that publicly traded firms would have synergy gains during the acquisition. However, the synergy gains are not available for private acquirer firms. Thus the premiums of private firms are not as large as public firms.

Bargeron et. al. (2008) state that the different effects of public and private acquirer are generally tried to be explained by other variables with multivariate analysis. In a state of not explained by the variables, in other words, if the significant difference remains same, then the reasons would be estimated. They state the other reason as failure effect of a deal that is more unfavorable for public firms than private firms. As a supportive finding to this statement, Netter et al. (2011) found that public acquirer firms are more likely to complete a deal than private acquirer firms.

Managerial ownership may be a determinant of the different effect of the public and private acquirer (Bargeron et al., 2008; Raad et al., 1999,; Bauguess et al., 2009). The difference extends in case that the private acquirer compared to low managerial ownership and the difference diminish in case of private acquirer compared to high managerial ownership (Bargeron et al., 2008). Moreover, due to the ownership structure of private firms (concentrated ownership), the managers of private firms have greater willingness for the increasing firm value than public firm managers (Bargeron et al., 2008). Other reasons of overpayment are hubris and overconfidence of managers. This issue occurs for public firms with low managerial ownership. Thus public firms more likely to overpay than private firms.

Betton et al. (2009) examination of U.S. public target over the period 1990-2002, found lower premiums when the bidder is private[4] rather than public bidder. Alexandridis et al. (2011) studied with U.S. acquisitions over the 1990-2007 period, found that private acquirers effect on the target CARs is significantly negative and lower premiums for target firm. They also state that private acquirers more likely to acquire small firms. Bauguess et al. (2009) found that the private acquirer has significantly negative coefficient that is private acquirers affect the target CARs negatively and found significantly lower premiums. Arık and Kutan (2015) found that private acquirer effect on target CARs is significantly negative.

Consequently, the literature findings show that private equity firms have a negative effect on target CARs.

[4] Betton et al. (2009) assume joint ventures, subsidiaries, mature companies, investor groups and government-owned companies as private equity firms.

CHAPTER 4

ANALYSIS OF TARGET CARs

4.1 Methodology

4.1.1 Introduction

"The methods of academic studies which measure the performance of M&As are classified into four groups. The first group, the methodology that I use in my study, is defined as event study. Event study analyzes the impact of the deal announcement on share price through the pre-announcement date and post-announcement date. The second group studies analyze the performance of M&As through financial statements which are observing the long effects of deals. The third method uses one or limited samples to analyze in detail the effect of the deal announcement. Due to the limited sample size, that method does its analysis in a very detailed way. The last and fourth method analyzes its sample by surveys and by face to face meeting with directors of corporations."[5]

[5]Bruner, R. F. (2002). Does M&A pay? A survey of evidence for the decision-maker. *Journal of Applied Finance*, Vol. 12(1). 48-68.

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4.1.2 Capital Asset Pricing Model (CAPM)

I analyze the impact of M&As on the share price of target firms for different event windows by using variables (determinants). As I mentioned before my analysis bases on event study. My principal objective is testing if M&As creates any abnormal return on the stocks of target firms. The estimated stock prices are obtained by standard market model methodology and by using ordinary least square in order to estimate stocks' betas. Because of testing significance of abnormal returns on the target firm's stocks, firstly we need the expected return on the stock. Hence I use Capital Asset Pricing Model (CAPM).

$$E(R_i) = R_f + [E(R_m) - R_f]\beta_i \qquad (1)$$

Where $E(R_i)$ is the expected return on the stock i, $E(R_m)$ is the expected return on the market portfolio, R_f is the risk-free rate of return and β_i is the stock's beta. The CAPM formula also could be formed as follows;

$$E(R_i) = R_f(1 - \beta_i) + E(R_m)\beta_i \qquad (2)$$

I use Ordinary Least Square (OLS) for estimating beta (βi) for a stock. The market model will be adjusted for this kind of estimation and formed as follows;

$$R_{it} = \alpha_i + \beta_i R_{mt} + e_{it} \qquad (3)$$

R_{it} denotes the actual return on the stock during the time t. R_{mt} denotes the actual market return during time t, and lastly, e_{it} denotes error term with zero means.

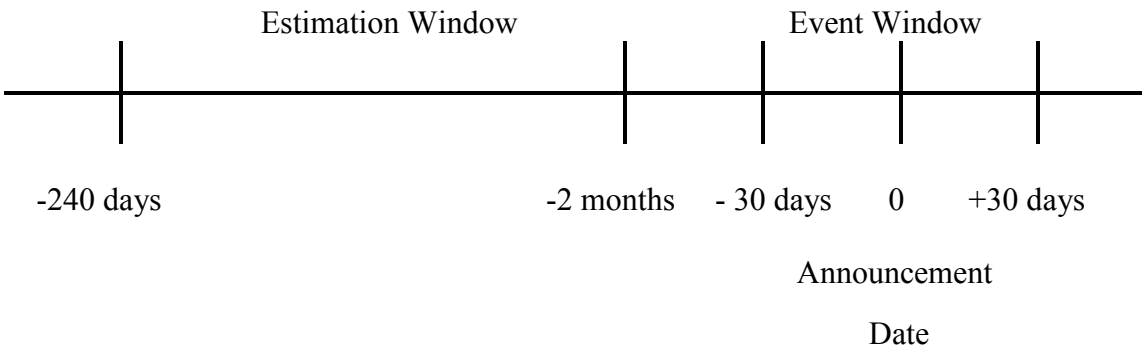
As I have mentioned previously we need the expected return. In order to estimate the expected return through the market model, it is needed to apply expectation to this model and it will be formed as follows;

$$E(R_{it}) = \alpha_i + \beta_i E(R_{mt}) \qquad (4)$$

Due to the assumption $E(e_{it}) = 0$ the error term is removed from the equation. In this model constant term (α_i) and βi taking place instead of $Rf(1 - \beta_i)$ and β_i respectively.

When explaining the model through my sample, $E(R_{it})$ denotes rate of return on stock i during time t, R_{mt} denotes market return (imkb close price return) during time t, α and β are estimated parameters of the market model that α_i denotes constant term of security I, β_i denotes coefficient of market return in the market model. The estimation of the parameters are obtained by the regression of Bist 100 returns and the related firm returns with the range starting pre 2 months (approximately 41 trading days) of the announcement date and to 240 trading days prior as showed in Figure 4.1.

Figure 4.1: Estimation Period and Event windows



4.1.3 Abnormal Returns (ARs) and Cumulative Abnormal Returns (CARs)

$$AR_{it} = R_{it} - E(R_{it}) \quad (5)$$

$$CAR_{iT} = \sum_{t=1}^{T} AR_{it.} \quad (6)$$

In equation 5 Abnormal Return (AR) is computed by subtracting estimated return of stock i on time t from realized return of stock I on time t. And Cumulative Abnormal Returns (CARs) are computed by summing up abnormal returns for different event windows as seen in equation 6 (Brown and Warner, 1985). The shortest and longest event windows are [-1, +1] and [-30, +30] respectively that is consist of 3-days and 61-days which include announcement date. At the end of the CAR

calculation, some outlier values emerged. For these outliers, I used the winsorizing method.[6] However, in the univariate and multivariate analysis, the results do not change. Thus I add outliers to my analysis as their original values.

After calculating CARs of the target firms for different event windows, I use t –test for testing the significance of the event windows and the variables[7] by cross-sectional analysis.[8]

My examination consists of two types of analysis which are univariate and multivariate analysis. In the univariate analysis, I apply difference test for equality of means for each variable in order to examine which factor has a significant effect on the dependent variable (target CARs). Also, Wilcoxon-Mann-Whitney median test is applied for testing equality of variables' medians. In multivariate analysis, all regressors (variables) are used together in some models. Before the multivariate analysis, the correlation matrix of variables is constituted in order to observe whether the variables correlated or not. If the variables are highly correlated, they are not used in the same model.

4.1.4 Event Windows

The event windows are expected to be short for an efficient market. However, the study of M&As' impact on shareholders wealth, are generally evaluated for long event windows in order to capture the pre-event and post-event reactions. Due to the information leakages, the event windows are also including pre-event days. Martynova

[6] Winsorized the CARs at the 1% level which corresponds to one observation for each lower and upper values.
[7] The variables are explained in Literature Review of Target CARs' Determinants section (Section 3.2)
[8] Variance equality tests (F-test) are applied and the greater part of the variables' variances are equal. Thus the mean equality tests are done by assuming equal variance.

and Renneboog (2008) indicate that empirical studies on M&As are generally predicated on the short-horizon abnormal return because long-horizon tests tend to be less confidential (Kothari and Warner, 2005; DePamphilis, 2010). The long-horizon analysis that consists of several months DePamphilis (2010) state that it is harder to distinguish the impacts of M&As in the long-term return analyses compared to short-term analyses.

In the existing studies, various shorter and longer event windows are used. For instance, Martynova and Renneboog (2006) used [-60, +60] event window that includes 121 days.

For U.S. M&As' analyses several event windows have been used that were extended to 30 days prior to the announcement date (Kyei-Mensah, 2011; Kıymaz and Baker, 2008; Swenson, 1993). As an emerging market, a study which evaluates the economic impact of mergers in India used various event windows that include 10 days prior to the announcement date (Mohapatra, 2014). The other more comprehensive study that involved twenty emerging market used various event windows which also include (-30, +10) event windows (Arık and Kutan, 2015).

After examining my event windows, only 8 significant event windows are obtained. At the starting point of my study, I had various 15 event windows between 30 days prior to the announcement date and 30 days after the announcement day[9]. After applying t-test in order to check the significance of the event windows, only 8 significant event windows remain that can be seen in Table 4.2 Panel A.

[9] In this study, the days represent trading days.

4.2 Sample

The M&As sample data is taken from Thompson Reuter's Securities Data Corporation (SDC) database. My sample contains all completed mergers, acquisition of majority interests and acquisition of partial interests trough 1991-2014. The 1980s and 1990 are not included due to the very few observations and inadequacy of data. I determine acquisition of majority interests as the acquirer owns equal or less than 25% interest of target firm before the deal, and owns at least 50% after the deal. It is also determined as an acquisition of majority interests by acquiring at least 40% in all cases (irrespective of a toehold exists). Lastly, I include in acquisition of partial interest that is acquiring at least %30 interest of target firm.

The following limitations are used for constituting my sample. i) The transaction should be announced during the sample period (1991-2014). ii) At least 30% interest should be acquired after the deal. iii) The target firm is a publicly traded firm on the Turkish Stock Exchange Market (İMKB). iv) The target firm should be traded for at least 100 trading days pre-two months of the announcement day. This limitation is important for estimating the parameters of the expected return. v) If there are any other M&A transactions that are related to the target firm, there should be at least two months between the two announcements dates of the target. If it is less than two months, only the earlier deal is added to the sample. Generally, if there are any other M&A transactions during the same year, these kinds of transactions are not included in the sample for avoiding overlap. However, because of the difficulties in working with a small sample, I generate a problematic data dummy for the subsequent deal in

place of excluding these kinds of deals.[10] I use the same estimation period for these deals when I estimate the parameters. In other words, if there is less than one year between the two transactions, I use the earlier deal's estimation period for both. After all these limitations, my total sample is composed of 128 completed acquisitions and mergers.

In order to analyze the target and acquirer's industries whether they are same or unrelated, the industry data is obtained from Thomson Reuter's database.

The market capitalizations of the target firms are obtained from Bloomberg. The market capitalizations of target firms are measured two months prior to the announcement date. It approximately corresponds to 41 trading days before the announcement date.

Acquirer experiences are controlled all over the deals that include all completed deals. If it is the acquirers' first deal in the sample period, it would be defined as not experienced. If there are any other deals that made by the same acquirer, then it would be defined as experienced.

4.2.1 Sample Description

My sample consists of 128 completed M&As as I mentioned in the previously. Table 4.1 implies the type of transaction. I use 3 types of transactions in my analysis. Table 4.1 shows the number and the percentage of these transactions. The sample is including 13 mergers that correspond to 10% of the total sample, 29 acquisition of partial interests that correspond to 23% of the total sample and lastly 86 acquisition of

[10] Due to the insignificance result of this dummy, it is not included in multivariate analyses in order to avoid redundant variables.

majority interests that equal to 67%. The table shows that majority of the sample consist of acquisition of majority interests. The next description presents the number and the percentage of Financial and Non-Financial target firms. Generally in the literature analyses are made with Non-Financial firms, because the financial deals react differently. There are 96 (75%) Non-Financial target firms and 32 (25%) Financial target firms. There are 3 main "acquirer public status" and their numbers and percentages in the sample are shown in Table 4.1 and as follows. There are 47 (37%) public acquirer firms, 58 (45%) private acquirer firms[11] and 23(18%) subsidiary acquirer firms. The sample consists of 77 (60%) domestic acquirers and 51 (40%) cross-border acquirers. Region of the Cross- border acquirer firms are as follows. There are 42 (82%) acquirer firms from Europe Region, 8 (16%) from Asia and 1 (2%) from America. 57 (45%) of the M&As were done between same business and remaining 71 (55%) M&As were done between unrelated business. 35 (27%) of the acquirer firms are experienced and 93 (73%) of the acquirer firms are not experienced, which means that the related deal is its first deal as an M&A activity. These 28 (80%) experienced acquirer firms out of the total experienced acquirer firms (35) had made a deal with the related firm before. The remaining 7 (20%) experienced acquirer firms had made a deal/deals with different firm or firms.

[Appendix B: Table 4.1. Panel A: Deal Characteristics]

[11] 1 government, 4 investors and 4 joint ventures are regarded as private equity firm

Panel B of Table 4.1 presents the distribution of M&As' years. This distribution just over my sample. The year the distributions that are seen in Table 4.1 is also needed for identifying M&A waves of Turkey. There are a few deals in the 1990s. There are a few changes in 2000, followed by a significant change in 2005 that created a wave. Another wave is seen in 2012 with 18 (14.06%) observations. The numbers of observations are not descriptive enough for indicating M&A waves. Therefore I present Figure 2.1 that shows year distributions of all completed M&As (not only public targets, all targets are included).

[Appendix B: Table 4.1. Panel B: Distribution of M&As Years]

Table 4.1 Panel C presents the distribution of target industries. Due to including financial companies to my sample Banks and other financials have a big share in this distribution. There are 12 (9.38%) banks and 10 (7.81%) other financials that generally consist of investment companies. Other active industries are “Food and Beverage” with 12 (9.38%) observations and “Construction Materials” with 8 (6.25%) observations.

[Appendix B: Table 4.1. Panel C: Distribution of Target Industries]

The next Panel D presents acquirer’s industry distribution. Additionally, it demonstrates that financial acquirers have a big share in all sample. Other financials

that consist of investor groups, investment companies and personal investors, is the most active industry with 30 (23.44%) observations. It is followed by “Oil and Gas” with 10 (7.81%) transaction, “Textiles & Apparel” with 9 (7.03%) transactions.

[Appendix B: Table 4.1. Panel D: Distribution of Acquirer Industries]

4.3 Results

I present the analysis’ results as univariate and multivariate analysis. In univariate analyses, I test the significance of the variables separately. Multivariate analyses are done with eight models that are established by considering the correlation matrix which is presented in Table 4.4. At first, high related variables are not included in the same model and then they are included in the same regression.

4.3.1 Univariate Analyses

The variables that expected to be efficient on the target firms' CARs and generally used in the literature, are separately tested. Panel A in Table 4.2, the means and medians of all sample are presented for 8 significant event windows. As you can see from this panel mostly pre-event windows are included, which indicates that the deals affect returns of target significantly before the announcement date. The CAR means of shorter event windows are significantly lower than longer pre-event windows. The medians of CARs are lower than CARs means which implies the impact of large returns on means. The CAR mean of shortest event window [-1, 0] is 2.9%

and longest even window's [-30, 0] CAR mean is 9.8% and both of them are statistically significant at 1% level. Wilcoxon signed rank test presents the significance of medians and the medians are statistically significant for all event windows except [-2, +2] event window. Bargeron et.al. (2008) examine the USA M&As and evaluated 28% and 30% CARs respectively for 5 and 11 days around the announcement day. Georgen and Renneboog (2004) examine 18 European large acquisitions and evaluated 12.96% and 15.92% CARs respectively for 5 and 11 days around the announcement day. Hekimoglu and Tanyeri (2011) state two main reasons that clarify the lower CARs in Turkey. The reasons are the difficulties of specifying the announcement date and information leakages.) Another more structural reason is the differences in legislative regulations and competition environment**.**

[Appendix C: Table 4.2 Panel A: Full Sample]

Mergers vs. Acquisition of Major Interests

In Table 4.2 Panel B the CARs of merger and acquisition of major interests are compared. The mean of mergers is 7.90% and the mean of major acquisitions is 2.26% for [-1, +1] event window and statistically significant at the 10% level. Other event windows are not significant for any level. The insignificant results are not consonant with expectation and literature. Due to the size of acquired percentage, mergers create larger CARs than acquisitions. These findings are also not consistent with Arık and Kutan (2015) study which evaluating the target return over twenty emerging markets, found highly significant results. They indicate the reason as the larger interest

acquisition leads more control in the target firm and the further control causes further investments. Martynova and Renneboog (2006) research of Europe M&As, found that mergers create significantly higher returns than major acquisitions. However in my sample when the total interest percentage[12] is examined, the acquirer of major acquisition obtained average 65% total interest of target firm at the end of the deal. This may convergence the CARs of mergers and acquisitions.

[Appendix C: Table 4.2 Panel B: Merger vs. Major Acquisition]

Mergers vs. Partial Acquisitions

In Table 4.2 Panel C the mergers and the partial acquisitions are compared. There is not a statistically significant difference between the means of mergers and partial acquisitions except [-1, +1] event window. For [-1, +1] event window Wilcoxon-Mann-Whitney Test which is testing medians difference, also statistically significant at level 5%. The means of mergers CARs are 7.90%, 4.39% and 4.45% for [-1, +1], [-1, 0] and [-2, +2] event windows respectively. The means of partial acquisitions CARs are 0.30%, 2.53% and -0.27% for [-1, +1], [-1, 0] and [-2, +2] event windows respectively. As seen from the table although any statistically significant difference between the merger and the partial acquisitions, the differences of the CAR means are observable. The same issue that is mentioned for merger and major acquisitions in the prior paragraph, again occurred for mergers and partial acquisitions. The average total interest of partial acquisitions that obtained at the end of the deal is

[12] The total interest percentage is equal to the sum of the percentage of toehold (toehold implies the interest that acquirer holds before the deal) and percentage of the acquired interests.

46%. It is not too little to be regarded as partial acquisitions. Total interest of 8 partial acquisitions are over %50 and average total interest of these eight deals is %67 at the end of the deals. It may be explained by this effect. This insignificant result is not consistent with Servaes and Zenner (1994) which reported that mergers effect target return more than partial acquisitions.

[Appendix C: Table 4.2 Panel C: Merger vs. Partial Acquisition]

Acquisition of Major Interests vs. Partial Acquisitions

The last comparison of M&A type is major acquisitions and partial acquisitions which is presented in Panel D. There is not any statistically significant difference between major acquisitions and partial acquisitions. This result is not confounding due to the prior results. Large differences in CAR means of major acquisitions and partial acquisitions are seen as 2.26% and 0.30% , 2.80% and 0.27%, 7.74% and 1.97% for [-1, +1], [-2, +2] and [-15, +15] event windows respectively.

[Appendix C: Table 4.2 Panel D: Major Acquisition vs. Acquisition of Partial Interests]

Domestic Acquisitions vs. Cross-border Acquisitions

Panel E of Table 4.2 displays the comparison of CARs means of domestic and cross-border acquisitions. t-test results indicate that there is not any statistically significant difference between cross-border and domestic M&As. The result is not consistent with the studies that compare shareholders wealth of cross-border and

domestic acquisitions (Danbolt and Maciver, 2012). However, it is consistent with Bertrand and Zitouna (2008) study that evaluates the impact of cross-border and domestic acquisitions on French manufacturing target firms. It is also consistent with Campa and Hernando (2004) research which evaluates European countries over the period 1998-2000, and have not observed a significant difference between cross-border and domestic acquisitions. In Panel E, only for 5 event windows of all 8 event windows, cross-border acquisitions average CARs are higher than domestics. For [-1,+1] and [-2, +2] event windows, the average CARs of domestic and cross-border acquisitions are 1.70% and 3.43%, 1.67% and 3.19% respectively.

[Appendix C: Table 4.2 Panel E: Domestic vs. Cross-border M&As]

Cross-border Acquirer's Region

Next panel of Table 4.2 Panel F is related to the prior panel that displays the cross-border acquirer's region. Actually, cross-border M&As impacts arise from the differences between acquirer and target firms such as firm size, accounting quality, country governance characteristics, shareholder protection, regulations about M&As (Danbolt and Maciver, 2012). But for examining acquirer region effect, the cross-border sample is separated into regions as groups. Only two groups; Europe and others are obtained. Other group consists of 8 Asia that mostly consists of Middle East countries and 1 America acquisition. Average CARs of other region are insignificantly higher than average Europe CARs. The M&A activities are also deferred in these middle east countries in contrast with U.S. and Europe. The initial experiences of

M&A cause more willingness and higher expectation that may have resulted with overpayment to target firm.

[Appendix C: Table 4.2 Panel F: Europe vs Other Acquirer Region]

Same Industry vs. Different Industries

The Panel G presents same and different industries average CARs. Same or different industries, in other words business relatedness, is a mostly pronounced variable in literature. In same industry acquisitions, the deal parties are in same industry. In different industries acquisition, the deal parties operate in different industries. A statistically significant difference is not evaluated for M&As between same and different industries either. For all event windows except [-15, 0] event window, the average CARs of same industry acquisitions are larger compared to different industries acquisitions. The means of same and unrelated industries for [-1, +1], [-1, 0], [-2, +2] and [-15, 0] event windows are 3.77% - and 1.27%, 3.27% and 2.68%, 4.14% and 0.78%, 9.06% and 9.82% respectively. The insignificant results are consistent with Arık and Kutan (2015) study which evaluating wealth effects of M&As over twenty emerging markets, but inconsistent with Kıymaz and Baker (2008) which is examining U.S. public firms, found significantly higher target returns for related acquisitions. These positively insignificant findings are also consistent with Tao (2009) which examined UK acquisitions between 1994 and 2006.

[Appendix C: Table 4.2 Panel G: Same vs. Different Industries]

Public Acquirer vs. Private Acquirer

In Panel H public and private acquirers are compared. According to Panel H, M&As by public acquirers create larger CARs to target firm than private acquirers. But these results are not statistically significant for any level. These findings are consistent with Bargeron et al. (2008) which significantly evaluated lower abnormal returns for private acquirer compared to the public acquirer. These findings are also consistent with Arık and Kutan (2015) findings which evaluated negative significant results. Regarding this examination, private acquirers create negative (about 4.5–6.4 %) significant value for target firms.

[Appendix C: Table 4.2 Panel H: Public vs. Private Acquirer Firm]

Public Acquirer vs. Subsidiary Acquirer

Comparison of the public and subsidiary acquirer in Table 4.2 Panel I, does not display significant results as well. However, acquisitions by subsidiary acquirers create larger CARs for target firms insignificantly. The largest differences are evaluated in [-15, 0] and [-30, 0] event windows that 9.27% and 5.72%, 10.44% and 19.23% for public and subsidiary acquirers respectively.

[Appendix C: Table 4.2 Panel I: Public vs. Subsidiary Acquirer Firm]

Private Acquirer vs. Subsidiary Acquirer

Table 4.2 Panel J presents the last comparison of acquirer status. As seen previously, the target firm returns with private acquirer are lower compared to the public acquirer. In this comparison, the differences of CARs means got larger. Such a

large difference that indicates %10 significant findings in [-15, 0] and [-30, 0] event windows. Average CARs of these event windows are 7.17% and 15.72%, 5.73% and 19.23% for private and subsidiary acquirers respectively. For [-30, 0] event window difference of CARs' medians is also statistically significant at 10% level. The total asset that owned after the acquisition was evaluated with intent to describe the differences. But the public acquisitions concluded with highest total assets. Definitely, there are further variables that may increase returns together. In literature, mostly target status is evaluated and subsidiary targets create an additional abnormal return on shareholder wealth of acquirer firm (Chang, 1998; Ang and Kohers, 2001; Fuller et al., 2002; Draper and Paudyal, 2006). In my study subsidiary acquirers create additional return similarly. But no supportive or explanatory study is found about the subsidiary acquirer. The acquirer status generally classified as public and private acquirer. In order to evaluate the subsidiary acquirer effect factually, it is included multivariate analysis.

[Appendix C: Table 4.2 Panel J: Private vs. Subsidiary Firm]

Experienced Acquirer vs. Inexperienced Acquirer

Panel K of Table 4.2 presents the acquirer experience status. There are 35 experienced acquirers and remaining acquirers have not been experienced before. It means related acquisition their first deal along the sample period. For all event windows, average CARs of the targets by experienced acquirers are higher than by inexperienced acquirers. However, only for [-15, +15] and [-30, 0] event windows the difference statistically significant at 10% level. The average target CARs by

experienced and inexperienced acquirers are 13.55% and 4.08%, 16.61% and 7.22% in these event windows ([-15, +15] and [-30, 0]) respectively. The experienced acquirers are expected to complete the deals successfully. Moreover, managerial hubris may also cause higher premiums and higher returns to target firm. The empirical result of Hayward & Hambrick (1997) shows that CEO hubris induce higher premiums to target firm. Thus the significant results are consistent with expectations and literature. The higher returns are also consistent with Malmendier and Tate (2008) findings that found higher returns to target firms as a result of overconfidence of experienced acquirer. The study of Dunne and Ndubizu (1995) presents that the U.S. target shareholders gain more wealth when the acquirers have prior experience in U.S. market, which is consistent with my findings.

[Appendix C: Table 4.2 Panel K: Acquirer Experience Status]

Acquirer Experienced Status

Table 4.2 Panel L is related to the previous table which presents the acquirer experienced status. Panel L indicates if the experienced acquirer is experienced with the same (related target firm) or different target firm or firms. Actually, the variable is substantially related with the toehold which is mostly pronounced as a variable in literature and used in my study as well. Although the results in Panel L are statistically insignificant for all event windows, mostly CAR means of experienced acquirer with related target firm are larger than the experienced acquirer with different firm or firms. For some event windows, average CAR's differences are remarkable. For instance [-2, 0] and [-30, 0] event windows CAR means are 10.99% and 4.02%, 29.49% and

13.39% for experienced with same and different firm respectively. The statistically insignificant results may have occurred due to the reason of limited sample size. All of the experienced with related target have toehold interest in the target firm. Thus this effect can be explained by the toehold effect. These insignificant findings are consistent with Betton et al. (2009). However, they found insignificantly higher target returns in case of zero toeholds. The higher abnormal returns in case of toehold presence are not consistent with Walkling and Edminster (1985) that found lower abnormal returns to target firm in case of toehold presence and consistent with Danbolt (1996) finding which found significantly higher pre-bid abnormal returns in case of toehold presence.

[Appendix C: Table 4.2 Panel L: Experienced with Same-Different Firm]

Problematic Data

Panel M of Table 4.2 displays the problematic data that identified as; on the condition, there are more than one deal for related target firm provided that no shorter than 2 months. It is mentioned in sample section that between two deals for the same target firm there should be more than 2 months, otherwise only the earlier deal would be added to the sample. Here in Panel M, I evaluate if the targets that acquired more than once in a year, create any significant difference with the remaining data. According to the Panel M, the statistically significant difference is not evaluated for any event window. However, insignificantly the overlapped data's average CARs are

lower than remaining data's average CARs. These findings indicate that the frequent deals of target firm may affect the share price reactions.

[Appendix C: Table 4.2 Panel M: Overlapped Data]

Bank Acquisitions

Table 4.2 Panel N shows whether bank acquisitions effects differ from other acquisitions or not. Because of the different reactions, bank acquisitions are generally examined separately. As I mentioned priorly, my examination includes both financial and non-financial M&As and I have tested (not presented) whether the financial acquisitions create any abnormal returns on target firm or not. Due to any significant result that means no significant difference between the financial and non-financial acquisitions, the financial acquisitions are included in the sample as well. Even though the financial acquisitions do not create significantly different effects on target returns, bank acquisitions have a significantly positive effect on target returns. Thus in order to observe the bank effect separately, the means and medians equality tests are applied which are presented in Panel N. According to Panel N, bank acquisitions create higher CARs for target firm than other industries in all event windows. For the [-1, 0], [-2, 0], [-5, 0] and [-30, 0] event windows bank acquisitions create significantly larger CARs. These findings are consistent with expectation and Scholtens and Wit (2004), Houston and Ryngaert (1994), Hudgins and Seifert (1996) and Pilloff (1996) studies that found significantly positive target returns for bank acquisitions.

[Appendix C: Table 4.2 Panel N: Bank vs. Other Industries]

M&A Waves in the Sample

Table 4.3 displays M&A waves during my sample period[13]. Features of the M&A waves are mentioned in Section 2 (2.2.2). The waves are constituted by taking into consideration the volume of M&As and Financial-Economic events. The first wave of M&As as 1991-1999 include 22 observations. For some event windows CAR medians are higher than CAR means. According to Panel A, there is not any statistically significant difference of this wave on CARs. Maximum and minimum CAR mean is experienced in [-30, 0] and [-2, +2] event windows with 1.02% and 10.31% respectively. The second M&A wave 2000-2001 has only 9 observations. For this wave, statistically significant difference is not observed in any event window. The highest CAR mean is experienced in [-15, 0] with 18.26% and lowest CAR's mean is 1.73% that evaluated in [-1, +1] event window. Third wave 2002-2004 includes only 4 observations. The short event windows represent significantly higher CARs in comparison to other M&A waves. There are statistically significant differences for [-1, +1], [-1, 0], [-2, +2] event windows at the 5% level and at the 10% level for [-2, 0] event window. The highest and lowest CAR means are evaluated as 23.85% and 11.78% for [-15, +15] and [-2, 0] event windows respectively. Fourth wave 2005-2011 which is including 54 observations. It is also the longest period in comparison to other waves except for the 1991-1999 wave. There is not any statistically significant difference in any event window. Highest and lowest CAR's means are evaluated as 10.09% and 1.22% for [-15, +15] and [-2, +2] event windows respectively. The last M&A wave in the sample 2012-2014 consists of 39 observations. For this wave,

[13] These observations do not imply all M&As during the sample period, only the observations which have the features that mentioned under the "Sample" title.

statistically significant difference is not evaluated as well. The highest and lowest CAR means are evaluated as 9.52% and 1.25% for [-30, 0] and [-1, +1] event windows respectively.

[Appendix D: Table 4.3 Panel A: M&A Waves]

After 2005 vs. Before 2005

Due to the insignificant results of wave dummies and the small sample size, I added After 2005 dummy in order to analyze the sample more general. Although Turkey M&A studies generally pronounce after and before 2000 (Akdogu, 2011), in Turkey the M&As surged after 2005 and that marks a new period of M&As. It is surely beyond doubt that the announcement of launching negotiation on full membership of the European Union created the wave. Approximately 69% cross-border acquisitions were done after 2005 (including 2005). Table 4.3 Panel F displays the univariate analyze of After 2005 dummy (including the M&As that announced in 2005). Even though the general expectation is for the improvement of market efficiency and thereby larger CARs in short event windows, these results in Table 4.3 Panel B implies larger gains before 2005. Moreover, there is not any statistically significant result. But for longer pre-announcement event windows such as [-15, 0] and [-30, 0], after 2005 average CARs are insignificantly lower than before 2005. Although it is not explanatory enough, these results are not inconsistent with market efficiency improvement. In these event windows, average CARs of after and before 2005 are 8.78% and 11.34%, 9.48% and 10.68% respectively. These findings are consistent

with the finding of Alexandiridis et. Al. (2012) which examine characteristics of the sixth wave that started in 2003. They found statistically significant lower CARs for 2003-2007 period compared to 1993-1999. They state the reasons of lower target CARs of the sixth wave as, the market corporate control was less competitive, acquirer were less acquisitive, managers displayed less overconfidence. Moreover, they found that acquirers were less overvalued relative to targets during the sixth wave. This induced more cash payment and less stock payment. During the sixth wave, Billett and Qian (2008) found 35% less frequent acquirers that related to managerial hubris. Starks and Wei (2004) and Wang and Xie (2009) suggest that the quality of corporate governance of the acquirer firm is negatively related to the premiums. Thus the premium may be decreased as a result of corporate governance improvements. The literature is generally consistent with my findings.

[Appendix D: Table 4.3 Panel B: After 2005 vs. Before 2005]

4.3.2 Multivariate Analyses

Variable Description

In this section, cross-sectional regression models are discussed through the variables which examined by univariate analysis. CAR of the target firm is the dependent variable of our regressions and the independent variables are presented as two groups as dummy variables and control variables. The dummy variables that are included in the multiple regression and also mentioned in univariate analysis section are as following. MERGER is a dummy variable that is equal to one if the deal is a

merger. It is equal to one if it is a major or partial acquisition. PARTIAL is equal to one if it is a partial acquisition that acquirer has acquired higher than 30% and less than 40% interest in target firm and it is equal to 0 if it is a merger or major acquisition. CROSS-BORDER is taking the value one if the acquirer is not from Turkey and 0 otherwise. SAME INDUSTRY is taking the value one if the acquirer and target are operating in same industries defined in SDC database and 0 otherwise. EXPERIENCED ACQUIRER is taking the value one if the acquirer had completed any other acquisition before the deal in the sample period. And it will be equal to zero if the deal is acquirer's first deal. PRIVATE ACQUIRER is equal to one if the status of the acquirer is private, 0 if it is public or subsidiary. Similarly SUBSIDIARY is equal to one if the acquirer's status is subsidiary, 0 otherwise. After 2005 is a dummy variable which is equal to one if the deal announced in or after 2005, 0 otherwise. If the target firm is a BANK, the bank variable is taking the value one, 0 otherwise. Similarly, other industries denote dummy variable that is taking the value one if the target industry equal to related industry and 0 otherwise.

The control variables are % ACQUIRED implies the percentage of interests that acquired by the related deal. % TOEHOLD is the percentage of the interests that is held by acquirer before the related deal. The last variable LOG OF MARKET CAP. is the log of the market capitalization of target firm which measured two months prior the announcement date. It approximately corresponds to 41 days before the announcement date.

Results of Multivariate Analyses

Regressions are estimated as eight model. % acquired, cross-border, same industries, market cap. and experienced variables are specified as main variables which are included almost all models. Remaining variables are included model by taking into consideration the correlation matrix that presented in Table 4.4.

The multiple regressions are done for all event windows which is displayed in Table 4.2 Panel A. But only four event windows are presented. The presented event windows are selected by observing the most statistically significant results. Although no statistically significant results are observed, [-30, 0] event window is selected, due to the study is based on the pre-announcement analysis.

The first multivariate analysis is presented in Table 4.5 Panel A. Due to the high correlation (0.57) between merger dummy and % acquired, only in the last model they are included in the regression together. In Model 1 coefficient of merger dummy is positive and statistically significant at the 5% level. The t-statistics are given in parenthesis. Other variables cross-border, same industry and experienced acquirer dummies are insignificant with positive coefficients. Their signs are consistent with expectation. Log of market cap. is not significant either. But its negative sign is consistent with expectation and literature.

In Model 2 the dummy variables of acquirer public status that private and subsidiary acquirer and after 2005 dummy are added. Merger dummy remains significant at the same level (5%). Other variables and additional variables are not significant. Private acquirer coefficient is positive in all models but not statistically significant. The positive coefficients are not consistent with Arık and Kutan (2015)

findings which evaluated negative significant results. Regarding this examination, private acquirers create negative (about 4.5–6.4 %) significant value for target firms. Bargeron et al. (2008) also find significantly lower returns in case of the private acquirer. Subsidiary date event dummy is insignificant and its coefficient is negative. Only in the last model, the subsidiary dummy's coefficient is insignificantly positive. But in the univariate analysis, the M&As by subsidiary acquirer create higher returns than by the public or private acquirer, which indicates that the higher CARs are not valid in multivariate analyses. The insignificant results of acquirer status indicate that acquirer status is not a significant factor on target CARs. After 2005 dummy variable is insignificant in all models as well and it has negative coefficients in all models, which contradicts to the expectations and consistent with the literature (Alexandridis et al., 2012; Billett and Qian, 2008; Starks and Wei, 2004; Wang and Xie, 2009). This expectation of positive coefficient is based on the expectation of market efficiency improvement and converge global market. When we look at the regression models of long event windows, we observe insignificantly positive coefficients for after 2005 dummy. These findings indicate that after 2005 pre-announcement gains of the target firm increased and it may provide support for the inefficient market in Turkey.

In model 3, % acquired variable is included and merger dummy is excluded. In this model, the experienced acquirer which is identified as a main variable, is excluded and % toehold is added instead of it. Due to the high correlation (0.71), they are not included in regressions together. When we compare Model 3 and Model 4 in terms of the adjusted R-square, adjusted R-square of Model 4 is higher than Model 3. Adjusted R-square shows the explanatory adequacy of variables. Hence, adding experienced acquirer dummy instead of % toehold increased explanatory adequacy of regression.

In other models are also examined with % toehold (not presented) and finally experienced acquirer dummy is selected due to the further significant results. In model 3, only % acquired is significant at the 5% level. The coefficient of % acquired is 0.001 which implies that one unit increase on %acquired, create 0.001 increase on CARs. Other variables are insignificant. % toehold coefficient is insignificantly positive. The positive effect of % toehold is consistent with Borges and Gairifo (2013) finding which shows that % toehold effect on target return is significantly positive. They state that the market may expect higher bid in case of toehold increase. And is not consistent with Betton et al. (2009) research that found insignificantly higher return in case of zero toeholds for the same event window.

Model 4 consist of main variables. % toehold is excluded and experienced acquirer dummy is included in. % acquired is significant at the %5 level in this and other models except model 8. Other variables are not significant and their coefficient signs remain same.

Model 5 additionally includes acquirer status which consists of private and subsidiary acquirer dummy and after 2005 dummy. The variables are not significant as well as do not create any significant result.

In model 6 while acquirer status and after 2005 dummies are excluded, the bank dummy is included in. Bank dummy is positively significant at the 5% level with 0.099 coefficient. It is consistent with literature and expectations. Banks create additionally 9.9% abnormal returns on target firm shares. Log of market cap is negatively significant at the 10% level which is consistent with expectations and literature.

When we add other industries which are selected by frequency in my sample, bank dummy's significance level has risen to 1% level and food and beverage industry is also positively significant at the 5% level. In addition to the bank and food and beverage dummies, Model 7 includes Construction Materials, Containers & Packaging, Petrochemicals and Textiles & Apparel dummies which are not significant in any event windows. Log of market cap remains negatively significant at the 10% level. Moreover, the highest adjusted R-square is observed in this model for this event window.

The last model, Model 8 includes highly correlated variables together. As mentioned before, the merger dummy and % acquired are highly correlated (0.57). Furthermore, the partial acquisition dummy is also highly correlated with % acquired (-0.59). Due to the correlation, the significance of the merger dummy and %acquired have disappeared. Industry dummies are excluded except for the bank dummy which is positively significant at the 5% level. Remaining variables are insignificant.

[Appendix F: Table 4.5 Panel A: Determinants of Target CAR for [-1,+1] event window]

In Table 4.5 Panel B presents the multivariate analyses for [-2, +2] event window. In Model 1 and Model 2, merger dummy is no longer significant for this event window. In model 3 % acquired is no longer significant and in Model 4, Model 6 and Model 7, %acquired significance level change as 10%. In model 5 subsidiary acquirer dummy's coefficient change into positive. In model 7 experienced acquirer dummy

become significant at the 10% level which indicates that if the acquirer has a prior experience in the sample period, the target's get on average 5.8% higher CAR. This finding is consistent with expectation and literature. In model 7 bank dummy's significance level change into 5% level from 1% level. In model 8 in addition to the bank dummy's significance, experienced acquirer became significant at the 10% level.

[Appendix F: Table 4.5 Panel B: Determinants of Target CAR for [-2,+2] event window]

In Table 4.5 Panel C [-15, +15] event window's multivariate analyses are presented. In this panel interestingly the variable merger dummy, % acquired and bank dummy that generally has significant effect, are not significant in any model. Log of market cap. and constant term are significant at the 1% level in all models. Experienced acquirer dummy is significant at the 10% level in model 2 and model 7. These insignificant results of other variables are not consistent with expectations and literature. These findings imply that CARs of the [-15, +15] event window could not be explained by the dependent variables. Due to the event window include post-announcement days, in order to examine only pre-announcement effect for a long period, [-30, 0] event window multivariate analysis table presented in Panel D.

[Appendix F: Table 4.5 Panel C: Determinants of Target CAR for [15, +15] event window]

In Table 4.5 Panel D all variables are insignificant in all models and the adjusted R-squares are negative for all models. These findings indicate that the variables are not explanatory for the target CARs of [-30, 0] event window. In other words, the CARs have occurred independently of the variables. Moreover, the highest average CAR is observed in [-30, 0] event window as it is shown in Table 4.2 Panel A.

[Appendix F: Table 4.5 Panel D: Determinants of Target CAR for [-30, 0] event window]

The insignificant results of [-30,0] event window may indicate that in Turkey investors' M&A related activities based on rumours which also implies that the investors do not have the knowledge of deal and acquirer characteristics. However when we look at around announcement date event windows ([-1, +1] and [-2, +2]), the variables are more explanatory which indicate that the investors act based on deal and acquirer characteristics. From this aspect, it may indicate a favourable feature in terms of the efficient market. However, when we evaluate the after 2005 dummy in this pre-announcement event window [-30,0], its coefficient change into insignificantly positive that shows the M&As that announced after 2005 create higher abnormal returns compared to before 2005 M&As in this long pre-announcement event window. For more efficient markets, it is expected to change into negative in pre-announcement event windows and to be positive around the announcement date event windows.

CONCLUSION

This study investigates whether M&As that announced between 1991 and 2014, affect the targets' CARs around and especially before announcement date. In order to examine the pre-announcement date, the event windows are extended to 30 days prior to the announcement date. In order to capture the whole effect, the long pre-announcement date event windows are used in literature. The earlier studies of M&A argue that it is unlikely to capture the whole effect of M&A in case of evaluating a few days around announcement date (Doukas and Travlos, 1988; Biswas, 1990, Danbolt, 1996 and Magenheim and Mueller, 1988).

When evaluating pre-announcement date event window of U.S., U.K., Europe and emerging markets, the differences between the markets' target CARs are highly remarkable. Actually, both in developed and emerging markets' targets obtain positive large returns. But in developed markets, the returns are larger compared to emerging markets. The targets from developed markets' target mostly get these returns in shorter event windows but emerging markets' targets get mostly in the longer pre-announcement period. This may be explained by information leakages, insider trading, the problem of detecting original announcement date (Arslan and Simsir, 2015) may provide support for the argument that the stock market is not efficient in Turkey. My findings which are in line with emerging markets findings, indicate that longer pre-event window has significantly higher CARs compared to shorter event windows. The average target CARs of [-30, 0] and [-1, +1] event windows are 9.80% and 2.40 respectively. The other finding is the shorter event windows' CARs even if just a bit

explained by the variables which are based on target, acquirer and deal characteristics. However, longer event windows especially [-30, 0] event windows' CARs are not explained by the variables. This finding may indicate that in Turkey while the investors do not act based on acquirer and deal characteristics in long pre-event windows, they act based on acquirer and deal characteristics in short event windows that around the announcement date.

When analyzed M&A waves in Turkey, the increase in this periods are not sufficient to create a wave except after 2005 period. Thus I analyzed the wave effect with after 2005 dummy variable and found lower target CARs after 2005. Although it is not consistent with the expectation of market efficiency improvements, it is consistent with the Alexandiridis et. al. (2012) which found statistically significant lower CARs for 2003-2007 period compared to 1993-1999. They state the reasons as the less competitive market corporate control, less acquisitive acquirers, the managers with less overconfidence and less overvalued acquirers relative to target firm. Besides the study, there are supportive arguments that support lower target returns in the sixth wave (Billett and Qian, 2008; Starks and Wei, 2004 and Wang and Xie, 2009; Malmendier and Tate, 2008). Less managerial hubris and overconfidence (Billett and Qian, 2008 and Malmendier and Tate, 2008) and the increase of corporate governance quality (Starks and Wei, 2004 and Wang and Xie, 2009) also support the lower target returns in sixth merger wave.

Finally, the larger target CARs in pre-event windows relative to the CARs of shorter event window that around the announcement date, may support the information leakages, the absence of original announcement date and inefficient stock market argument for Turkey market.

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APPENDIX A: Variable Description

- MERGER is a dummy variable that is equal to one if the deal is a merger. It is equal to one if it is a major or partial acquisition.

- PARTIAL is equal to one if it is a partial acquisition that acquirer has acquired higher than 30% and less than 40% interest in target firm and it is equal to 0 if it is a merger or major acquisition.

- CROSS-BORDER is taking the value one if the acquirer is not from Turkey and 0 otherwise.

- SAME INDUSTRY is taking the value one if the acquirer and target are operating in same industries defined in SDC database and 0 otherwise.

- EXPERIENCED ACQUIRER is taking the value one if the acquirer had completed any other acquisition before the deal in the sample period.

- PRIVATE ACQUIRER is equal to one if the status of the acquirer is private, 0 if it is public or subsidiary.

- SUBSIDIARY is equal to one if the acquirer's status is subsidiary, 0 otherwise.

- AFTER 2005 is a dummy variable which is equal to one if the deal announced in or after 2005, 0 otherwise.
- BANK is dummy variable which is taking the value one, if the target firm is a BANK, 0 otherwise. (other industries denote dummy variable that is taking the value one if the target industry equal to related industry and 0 otherwise)
- % ACQUIRED implies the percentage of interests that acquired by the related deal.
- % TOEHOLD is the percentage of the interests that is held by acquirer before the related deal.
- LOG OF MARKET CAP. is the log of the market capitalization of target firm which measured two months prior the announcement date. It approximately corresponds to 41 days before the announcement date.

APPENDIX B: Table 4.1. Sample Description

Panel A: Deal Characteristics

Form of Transaction	N	Acquisition of Majority Interests	Acquisition of Partial Interest	Merger
	128	86	29	13
		67 %	23%	10%

Target Finacial/ Non-Financial	N	Financial Targets	Non-Financial Targets
	128	32	96
		25%	75%

Acquirer Status	N	Public	Private	Subsidiary
	128	47	58	23
		37%	45%	18%

Acquirer Nation	N	Domestic	Cross-Border
	128	77	51
		60%	40%

Cross-Border Region	N	Europe	Asia	America
	51	42	8	1
		82%	16%	2%

Same/ Unrelated Business	N	Same Business	Unrelated Business
	128	57	71
		45%	55%

Acquirer Experience	N	Experienced	First Deal
	128	35	93
		27%	73%

Acquirer Experienced with Same/Different Firm	N	Same Firm	Different Firm
	35	28	7
		80%	20%

Table 4.1. Contd.

Panel B: Distribution of M&As Years

Year	Number of Transaction	% of Total Sample
1991	1	0.78
1992	0	0.00
1993	2	1.56
1994	2	1.56
1995	3	2.34
1996	6	4.69
1997	1	0.78
1998	6	4.69
1999	1	0.78
2000	5	3.91
2001	4	3.13
2002	2	1.56
2003	2	1.56
2004	0	0.00
2005	11	8.59
2006	7	5.47
2007	9	7.03
2008	9	7.03
2009	9	7.03
2010	4	3.13
2011	5	3.91
2012	18	14.06
2013	13	10.16
2014	8	6.25
Total	**128**	**100**

Table 4.1. Contd.

Panel C: Distribution of Target Industries

Target Industry	Number of Observations	% of Total Sample
Banks	12	9.38
Food and Beverage	12	9.38
Other Financials	10	7.81
Construction Materials	8	6.25
Containers & Packaging	6	4.69
Food & Beverage Retailing	6	4.69
Insurance	6	4.69
Petrochemicals	6	4.69
Textiles & Apparel	6	4.69
Discount and Department Store Retailing	5	3.91
Machinery	5	3.91
Metals & Mining	5	3.91
Chemicals	4	3.13
Publishing	4	3.13
Automobiles & Components	3	2.34
Oil & Gas	3	2.34
Paper & Forest Products	3	2.34
Asset Management	2	1.56
Electronics	2	1.56
Other Industrials	2	1.56
Pharmaceuticals	2	1.56
Power	2	1.56
Transportation & Infrastructure	2	1.56
Advertising & Marketing	1	0.78
Alternative Financial Investments	1	0.78
Computers & Electronics Retailing	1	0.78
Computers & Peripherals	1	0.78
Home Furnishings	1	0.78
Hospitals	1	0.78
Household & Personal Products	1	0.78
Motion Pictures / Audio Visual	1	0.78
Other Materials	1	0.78
Other Real Estate	1	0.78
Software	1	0.78
Telecommunications Equipment	1	0.78
Total	**128**	**100.00**

Table 4.1. Contd.

Panel D: Distribution of Acquirer Industries

Acquirer Industry	Number of Observations	% of Total Sample
Other Financials	30	23.44
Oil & Gas	10	7.81
Textiles & Apparel	9	7.03
Banks	8	6.25
Construction Materials	8	6.25
Food and Beverage	7	5.47
Automobiles & Components	6	4.69
Alternative Financial Investments	4	3.13
Asset Management	4	3.13
Food & Beverage Retailing	4	3.13
Insurance	4	3.13
Power	4	3.13
Other Materials	3	2.34
Chemicals	2	1.56
Containers & Packaging	2	1.56
Electronics	2	1.56
Household & Personal Products	2	1.56
Machinery	2	1.56
Metals & Mining	2	1.56
Pharmaceuticals	2	1.56
Agriculture & Livestock	1	0.78
Brokerage	1	0.78
Building/Construction	1	0.78
Home Furnishings	1	0.78
Media	1	0.78
Other Industrials	1	0.78
Paper & Forest Products	1	0.78
Professional Services	1	0.78
Publishing	1	0.78
Recreation & Leisure	1	0.78
REITs	1	0.78
Software	1	0.78
Transportation & Infrastructure	1	0.78
Total	**128**	**100.00**

APPENDIX C: Table 4.2. Target Cumulative Abnormal Returns (CARs)

Panel A: Full Sample

Event Window	N	Mean CAR	Median CAR	Min CAR	Max CAR	t-statistic	Wilcoxon signed rank test
CAR [-1,+1]	128	2.40%	0.70%	-39.40%	43.80%	2.3**	2.09**
CAR [-1, 0]	128	2.90%	1.20%	-18.60%	35.50%	3.96***	3.67***
CAR [-2, +2]	128	2.30%	0.80%	-38.70%	54.50%	1.92*	1.32
CAR [-2, 0]	128	3.70%	2.00%	-18.80%	52.00%	4.23***	3.96***
CAR [-5, 0]	128	5.00%	1.80%	-20.60%	61.10%	4.56***	4.02***
CAR [-15, +15]	128	6.70%	3.40%	-79.50%	90.60%	2.94***	2.51**
CAR [-15, 0]	128	9.50%	6.00%	-48.20%	80.60%	5.59***	5.18***
CAR [-30, 0]	127	9.80%	8.70%	-104.20%	95.70%	3.94***	4.20***

***, **, and * denote statistical significance at 1%, 5% and 10%, respectively.

Panel B: Merger vs. Major Acquisition

	Merger N=13		Acquisition of Major Interest N=86			
Event Window	Mean CAR (Merger)	Median CAR (Merger)	Mean CAR (Major Ac.)	Median CAR (Major Ac.)	t-statistic	Wilcoxon/ Mann-Whitney test / z value
CAR [-1, +1]	7.90%	-7.27%	2.26%	0.69%	1.54	1.84*
CAR [-1, 0]	4.39%	3.74%	2.87%	1.10%	0.59	1.10
CAR [-2, +2]	4.45%	3.58%	2.80%	1.42%	0.40	0.80
CAR [-2, 0]	3.17%	4.13%	3.96%	1.99%	-0.26	0.28
CAR [-5, 0]	7.44%	4.55%	4.94%	1.56%	0.68	1.27
CAR [-15, +15]	10.10%	3.19%	7.74%	5.70%	0.32	0.38
CAR [-15, 0]	12.90%	14.96%	9.83%	5.09%	0.58	0.68
CAR [-30, 0]	11.34%	14.20%	10.49%	6.00%	0.11	0.54

***, **, and * denote statistical significance at 1%, 5% and 10%, respectively.

Table 4.2 Contd.

Panel C: Merger vs. Partial Acquisition

	Merger N=13		Partial Acquisition N=29			
Event Window	Mean CAR (Merger)	Median CAR (Merger)	Mean CAR (Partial Ac.)	Median CAR (Partial Ac.)	t-statistic	Wilcoxon/Mann-Whitney test / z value
CAR [-1, +1]	7.90%	-7.27%	0.30%	-1.78%	2.43**	2.26**
CAR [-1, 0]	4.39%	3.74%	2.53%	1.35%	0.76	1.25
CAR [-2, +2]	4.45%	3.58%	-0.27%	-2.56%	1.20	1.55
CAR [-2, 0]	3.17%	4.13%	3.27%	0.20%	-0.03	0.57
CAR [-5, 0]	7.44%	4.55%	4.07%	1.30%	0.85	1.28
CAR [-15, +15]	10.10%	3.19%	1.97%	-0.52%	0.88	1.14
CAR [-15, 0]	12.90%	14.96%	6.92%	6.17%	0.82	1.22
CAR [-30, 0]	11.34%	14.20%	7.16%	6.53%	0.40	0.73

***, **, and * denote statistical significance at 1%, 5% and 10%, respectively.

Panel D: Major Acquisition vs. Acquisition of Partial Interests

	Major Acquisition N=86		Partial Acquisition N=29			
Event Window	Mean CAR (Major Ac)	Median CAR (Major Ac)	Mean CAR (Partial Ac.)	Median CAR (Partial Ac.)	t-statistic	Wilcoxon/Mann-Whitney test / z value
CAR [-1, +1]	2.26%	0.69%	0.30%	-1.78%	0.78	0.93
CAR [-1, 0]	2.87%	1.10%	2.53%	1.35%	0.18	0.46
CAR [-2, +2]	2.80%	1.42%	-0.27%	-2.56%	1.05	1.13
CAR [-2, 0]	3.96%	1.99%	3.27%	0.20%	0.31	0.52
CAR [-5, 0]	4.94%	1.56%	4.07%	1.30%	0.32	0.29
CAR [-15, +15]	7.74%	5.70%	1.97%	-0.52%	1.04	1.44
CAR [-15, 0]	9.83%	5.09%	6.92%	6.17%	0.69	0.65
CAR [-30, 0]	10.49%	6.00%	7.16%	6.53%	0.53	0.27

***, **, and * denote statistical significance at 1%, 5% and 10%, respectively.

Table 4.2. Contd.

Panel E: Domestic vs. Cross-border M&As

	Domestic N=77		Cross- border N=51			
Event Window	Mean CAR (Domestic)	Median CAR (Domestic)	Mean CAR (Cross-border)	Median CAR (Cross-border)	t-statistic	Wilcoxon/Mann-Whitney test / z value
CAR [-1, +1]	1.70%	1.23%	3.43%	0.68%	0.82	0.21
CAR [-1, 0]	2.41%	1.38%	3.76%	1.14%	0.89	0.31
CAR [-2, +2]	1.67%	1.86%	3.19%	0.08%	0.63	0.31
CAR [-2, 0]	3.41%	3.18%	4.19%	1.15%	0.43	0.31
CAR [-5, 0]	5.10%	2.15%	4.85%	1.73%	-0.11	0.67
CAR [-15, +15]	6.38%	4.31%	7.10%	-0.52%	0.15	0.49
CAR [-15, 0]	9.52%	6.43%	9.41%	3.60%	-0.03	0.45
CAR [-30, 0]	11.77%	10.05%	6.88%	3.29%	-0.96	1.17

***, **, and * denote statistical significance at 1%, 5% and 10% respectively.

Panel F: Europe vs Other Acquirer Region

	Europe N=42		Other N=9			
Event Window	Mean CAR (Europe)	Median CAR (Europe)	Mean CAR (Other)	Median CAR (Other)	t-statistic	Wilcoxon/Mann-Whitney test / z value
CAR [-1, +1]	2.56%	0.69%	7.47%	0.61%	-1.07	0.31
CAR [-1, 0]	3.23%	1.10%	6.23%	2.84%	-0.81	0.75
CAR [-2, +2]	2.18%	-1.06%	7.90%	0.92%	-1.03	0.31
CAR [-2, 0]	3.56%	0.88%	7.15%	2.62%	-0.85	0.28
CAR [-5, 0]	4.28%	1.38%	7.53%	2.59%	-0.62	0.11
CAR [-15, +15]	7.03%	-0.43%	7.43%	-2.91%	-0.04	0.14
CAR [-15, 0]	8.99%	3.45%	11.39%	3.60%	-0.29	0.19
CAR [-30, 0]	5.97%	2.68%	11.13%	10.19%	-0.43	0.14

***, **, and * denote statistical significance at 1%, 5% and 10% respectively.

Table 4.2. Contd.
Panel G: Same vs. Different Industries

	Same Industries N=57		Different Industries N=71			
Event Window	Mean CAR (Same)	Median CAR (Same)	Mean CAR (Different)	Median CAR (Different)	t-statistic	Wilcoxon/Mann-Whitney test / z value
CAR [-1, +1]	3.77%	0.73%	1.27%	0.73%	1.2	0.51
CAR [-1, 0]	3.27%	1.13%	2.68%	1.33%	0.4	0.28
CAR [-2, +2]	4.14%	0.71%	0.78%	0.92%	1.42	0.50
CAR [-2, 0]	4.18%	1.59%	3.35%	3.18%	0.46	0.15
CAR [-5, 0]	5.59%	1.84%	4.52%	1.73%	0.48	0.28
CAR [-15, +15]	7.72%	0.70%	5.82%	3.89%	0.41	0.12
CAR [-15, 0]	9.06%	5.05%	9.82%	8.21%	-0.22	0.50
CAR [-30, 0]	11.53%	5.14%	8.41%	8.89%	0.62	0.12

***, **, and * denote statistical significance at 1%, 5% and 10% respectively.

Panel H: Public vs. Private Acquirer Firm

	Public Acquirer N=47		Private Acquirer N=58			
Event Window	Mean CAR (Public)	Median CAR (Public)	Mean CAR (Private)	Median CAR (Private)	t-statistic	Wilcoxon/Mann-Whitney test / z value
CAR [-1, +1]	2.60%	2.31%	1.68%	1.40%	0.41	0.25
CAR [-1, 0]	3.91%	1.16%	1.88%	1.54%	1.26	0.76
CAR [-2, +2]	1.87%	0.05%	2.33%	2.18%	-0.17	0.82
CAR [-2, 0]	4.65%	2.72%	2.93%	2.44%	0.88	0.62
CAR [-5, 0]	6.67%	3.17%	3.91%	1.31%	1.11	1.27
CAR [-15, +15]	5.34%	1.71%	6.10%	4.10%	-0.15	0.80
CAR [-15, 0]	9.27%	6.17%	7.17%	5.50%	0.58	0.17
CAR [-30, 0]	10.44%	8.53%	5.73%	5.08%	0.86	0.36

***, **, and * denote statistical significance at 1%, 5% and 10%, respectively.

Table 4.2. Contd.

Panel I: Public vs. Subsidiary Acquirer Firm

	Public Acquirer N=47		Subsidiary Acquirer N=23			
Event Window	Mean CAR (Public)	Median CAR (Public)	Mean CAR (Subsidiary)	Median CAR (Subsidiary)	t-statistic	Wilcoxon/Mann-Whitney test / z value
CAR [-1, +1]	2.60%	2.31%	3.74%	-0.65%	-0.35	0.35
CAR [-1, 0]	3.91%	1.16%	3.65%	1.00%	0.11	0.38
CAR [-2, +2]	1.87%	0.05%	2.96%	-0.44%	-0.30	0.34
CAR [-2, 0]	4.65%	2.72%	3.82%	0.60%	0.33	0.63
CAR [-5, 0]	6.67%	3.17%	4.34%	1.04%	0.73	0.90
CAR [-15, +15]	5.34%	1.71%	10.83%	5.21%	-0.83	0.88
CAR [-15, 0]	9.27%	6.17%	15.72%	15.52%	-1.26	1.26
CAR [-30, 0]	10.44%	8.53%	19.23%	15.30%	-1.41	1.53

***, **, and * denote statistical significance at 1%, 5% and 10%, respectively.

Panel J: Private vs. Subsidiary Acquirer Firm

	Private Acquirer N=58		Subsidiary Acquirer N=23			
Event Window	Mean CAR (Private)	Median CAR (Private)	Mean CAR (Subsidiary)	Median CAR (Subsidiary)	t-statistic	Wilcoxon/Mann-Whitney test / z value
CAR [-1, +1]	1.68%	1.40%	3.74%	-0.65%	-0.76	0.50
CAR [-1, 0]	1.88%	1.54%	3.65%	1.00%	-0.89	0.13
CAR [-2, +2]	2.33%	2.18%	2.96%	-0.44%	-0.20	0.59
CAR [-2, 0]	2.93%	2.44%	3.82%	0.60%	-0.35	0.05
CAR [-5, 0]	3.91%	1.31%	4.34%	1.04%	-0.15	0.05
CAR [-15, +15]	6.10%	4.10%	10.83%	5.21%	-0.73	0.33
CAR [-15, 0]	7.17%	5.50%	15.72%	15.52%	-1.85*	1.40
CAR [-30, 0]	5.73%	5.08%	19.23%	15.30%	-1.76*	1.67*

***, **, and * denote statistical significance at 1%, 5% and 10%, respectively.

Table 4.2. Contd.

Panel K: Acquirer Experience Status

	Experienced Acquirer N=35		First Deal N=93			
Event Window	Mean CAR (Experienced)	Median CAR (Experienced)	Mean CAR (First Deal)	Median CAR (First Deal)	t-statistic	Wilcoxon/Mann-Whitney test / z value
CAR [-1, +1]	2.78%	0.73%	2.24%	1.55%	0.23	0.01
CAR [-1, 0]	4.45%	1.14%	2.38%	1.38%	1.25	0.81
CAR [-2, +2]	3.81%	1.82%	1.70%	0.40%	0.79	0.45
CAR [-2, 0]	5.41%	1.76%	3.08%	2.22%	1.18	0.68
CAR [-5, 0]	7.42%	2.99%	4.09%	1.69%	1.36	1.01
CAR [-15, +15]	13.55%	6.92%	4.08%	-0.35%	1.88*	1.44
CAR [-15, 0]	13.76%	6.43%	7.87%	5.60%	1.56	1.25
CAR [-30, 0]	16.61%	13.93%	7.22%	4.49%	1.70*	1.61

***, **, and * denote statistical significance at 1%, 5% and 10%, respectively.

Panel L: Experienced with Same-Different Firm

	Experienced with Same Firm N=28		Experienced with Different Firm N=7			
Event Window	Mean CAR (Same)	Median CAR (Same)	Mean CAR (Different)	Median CAR (Different)	t-statistic	Wilcoxon/Mann-Whitney test / z value
CAR [-1, +1]	1.60%	7.44%	3.07%	0.59%	-0.29	0.27
CAR [-1, 0]	7.79%	7.65%	3.62%	0.93%	1.13	1.30
CAR [-2, +2]	2.37%	7.54%	4.17%	1.26%	-0.29	0.02
CAR [-2, 0]	10.99%	7.40%	4.02%	0.96%	1.67*	1.88*
CAR [-5, 0]	13.14%	12.99%	5.99%	1.94%	1.23	0.97
CAR [-15, +15]	13.97%	6.20%	13.44%	7.41%	0.04	-0.02
CAR [-15, 0]	24.30%	15.28%	11.12%	5.44%	1.50	1.38
CAR [-30, 0]	29.49%	20.34%	13.39%	13.05%	1.57	1.09

***, **, and * denote statistical significance at 1%, 5% and 10%, respectively

Table 4.2. Contd.

Panel M: Overlapped Data

	Overlapped Data N=10		Remaining Data N=118			
Event Window	Mean CAR (Overlapped)	Median CAR (Overlapped)	Mean CAR (Remaining)	Median CAR (Remaining)	t-statistic	Wilcoxon/Mann-Whitney test / z value
CAR [-1,+1]	-1.40%	-0.78%	2.71%	1.56%	-1.07	1.54
CAR [-1, 0]	0.54%	0.26%	3.15%	1.35%	-0.94	0.97
CAR [-2, +2]	-1.70%	-2.34%	2.61%	1.84%	-0.98	1.35
CAR [-2, 0]	0.05%	0.02%	4.03%	2.74%	-1.22	1.48
CAR [-5, 0]	-0.54%	-0.61%	5.47%	2.67%	-1.48	1.71*
CAR[-15, +15]	2.54%	-0.33%	7.02%	4.10%	-0.53	0.40
CAR [-15, 0]	4.00%	3.70%	9.94%	6.69%	-0.94	0.87
CAR [-30, 0]	7.97%	13.05%	9.97%	8.53%	-0.21	0.03

***, **, and * denote statistical significance at 1%, 5% and 10%, respectively

Panel N: Bank vs. Other Industries

	Bank N=12		Other Industries N= 116			
Event Window	Mean CAR (Bank)	Median CAR (Bank)	Mean CAR (Other)	Median CAR (Other)	t-statistic	Wilcoxon/Mann-Whitney test / z value
CAR [-1, +1]	6.24%	2.60%	1.99%	0.72%	1.20	0.27
CAR [-1, 0]	8.01%	3.95%	2.42%	1.10%	2.22**	1.92*
CAR [-2, +2]	6.19%	0.92%	1.87%	0.81%	1.06	0.21
CAR [-2, 0]	9.52%	7.78%	3.12%	1.32%	2.15**	2.35**
CAR [-5, 0]	12.46%	11.77%	4.23%	1.49%	2.22**	2.28**
CAR [-15, +15]	6.82%	2.26%	6.65%	3.43%	0.02	0.32
CAR [-15, 0]	16.70%	21.34%	8.73%	5.44%	1.38	1.82*
CAR [-30, 0]	25.42%	28.60%	8.18%	6.53%	2.05**	2.18**

***, **, and * denote statistical significance at 1%, 5% and 10%, respectively

APPENDIX D: Table 4.3. Target CARs According to the M&A Waves

Panel A: M&A Waves

Event Window	Mean CAR 1991-1999	Median CAR 1991-1999	Mean CAR 2000-2001	Median CAR 2000-2001	Mean CAR 2002-2004	Median CAR 2002-2004	Mean CAR 2005-2011	Median CAR 2005-2011	Mean CAR 2012-2014	Median CAR 2012-2014
CAR [-1, +1]	1.42%	2.42%	1.73%	3.76%	13.92%**	6.83%	2.86%	1.48%	1.25%	0.24%
CAR [-1, 0]	3.79%	3.49%	3.79%	0.87%	12.18%**	9.79%	2.80%	1.14%	1.52%	0.70%
CAR [-2, +2]	1.02%	2.10%	3.63%	1.86%	16.34%**	9.32%	1.22%	-0.86%	2.68%	0.92%
CAR [-2, 0]	3.85%	1.32%	5.61%	7.45%	11.78%*	9.00%	3.36%	1.68%	2.89%	1.64%
CAR [-5, 0]	4.00%	0.74%	9.59%	12.12%	14.09%	10.22%	4.50%	1.44%	4.26%	2.15%
CAR [-15, +15]	1.61%	-5.43%	4.14%	-7.15%	23.85%	29.42%	6.61%	6.06%	8.43%	3.68%
CAR [-15, 0]	7.52%	10.38%	18.26%	21.69%	16.78%	20.27%	10.09%	5.19%	6.96%	4.11%
CAR [-30, 0]	10.31%	14.65%	10.35%	0.63%	13.46%	12.78%	9.45%	3.46%	9.52%	9.38%
Number of Obs.	22	22	9	9	4	4	54	54	39	39

***, **, and * denote statistical significance at 1%, 5% and 10%, respectively.

Table 4.3. Contd.

Panel B: After 2005 vs. Before 2005

	After 2005 N=93		Before 2005 N=35			
Event Window	Mean CAR (After 2005)	Median CAR (After 2005)	Mean CAR (Before 2005)	Median CAR (Before 2005)	t-statistic	Wilcoxon/Mann-Whitney test / z value
CAR [-1, +1]	2.18%	0.73%	2.93%	3.76%	-0.32	0.76
CAR [-1, 0]	2.26%	1.13%	4.75%	2.70%	-1.50	1.27
CAR [-2, +2]	1.83%	0.31%	3.44%	2.12%	-0.60	0.73
CAR [-2, 0]	3.16%	1.64%	5.21%	2.77%	-1.04	0.87
CAR [-5, 0]	4.40%	1.69%	6.59%	3.76%	-0.89	0.97
CAR [-15, +15]	7.37%	4.31%	4.80%	-5.39%	0.50	0.84
CAR [-15, 0]	8.78%	4.78%	11.34%	11.15%	-0.67	0.97
CAR [-30, 0]	9.48%	5.16%	10.68%	14.49%	-0.21	1.20

***, **, and * denote statistical significance at 1%, 5% and 10%, respectively

APPENDIX E: Table 4.4. Correlation Matrix

		1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*	*16*	*17*
1	After 2005	1.00																
2	Merger	-0.03	1.00															
3	Major Acquisition	-0.02	-0.48	1.00														
4	Partial Acquisition	0.04	-0.18	-0.77	1.00													
5	Experienced Acquirer	-0.02	-0.15	0.02	0.09	1.00												
6	Exp. with Same Target	-0.01	-0.18	0.01	0.12	0.86	1.00											
7	Same Industry	-0.05	0.06	0.02	-0.07	-0.20	-0.13	1.00										
8	Bank	-0.04	-0.02	0.11	-0.11	-0.08	-0.11	0.09	1.00									
9	Cross-Border	-0.04	-0.27	0.16	0.02	-0.18	-0.12	0.11	0.07	1.00								
10	Public Acquirer	-0.04	0.17	-0.09	-0.03	0.26	0.15	0.03	0.14	0.08	1.00							
11	Private Acquirer	-0.04	-0.15	0.10	-0.01	-0.17	-0.10	0.01	-0.13	-0.32	-0.69	1.00						
12	Subsidiary Acquirer	0.10	-0.02	-0.02	0.04	-0.10	-0.05	-0.05	-0.01	0.33	-0.36	-0.43	1.00					
13	% acquired	0.03	0.57	0.16	-0.59	-0.28	-0.31	0.14	0.20	-0.06	0.12	-0.11	0.00	1.00				
14	% Toehold	-0.08	-0.15	-0.09	0.21	0.71	0.83	-0.09	-0.09	-0.02	0.12	-0.12	0.01	-0.37	1.00			
15	Toehold	0.03	0.17	0.01	-0.13	-0.84	-0.98	0.12	0.10	0.11	-0.12	0.09	0.04	0.32	-0.84	1.00		
16	Log of Market Cap.	0.36	-0.10	0.04	0.03	-0.12	-0.09	0.09	0.29	0.27	0.04	-0.16	0.16	-0.06	0.03	0.08	1.00	
17	Financial Target	0.11	-0.01	0.02	-0.01	0.05	0.04	0.10	0.56	-0.03	0.08	-0.13	0.06	0.10	-0.07	-0.01	-0.09	1

APPENDIX F: Table 4.5. Multivariate Analyses of Target CARs

Panel A: Determinants of Target CAR for [-1, +1] event window

Dependent Variables	1	2	3	4	5	6	7	8
Merger	0.082**	0.087**						0.051
	(2.20)	(2.18)						(1.02)
% Acquired			0.001**	0.001**	0.001**	0.001**	0.001**	0.0009
			(2.25)	(2.39)	(2.38)	(2.14)	(2.09)	(1.05)
% Toehold			0.0005					
			(0.64)					
Partial Acquisition								0.010
								(0.32)
Cross-Border	0.039	0.044	0.025	0.028	0.029	0.025	0.024	0.040
	(1.61)	(1.61)	(1.07)	(1.21)	(1.15)	(1.08)	(1.03)	(1.47)
Same Industries	0.020	0.019	0.013	0.015	0.014	0.013	0.019	0.013
	(0.88)	(0.81)	(0.56)	(0.69)	(0.62)	(0.57)	(0.81)	(0.57)
Experienced Acquirer	0.025	0.027		0.029	0.031	0.030	0.039	0.040
	(0.98)	(0.97)		(1.14)	(1.10)	(1.19)	(1.50)	(1.43)
Log of Market Cap.	-0.012	-0.011	(-0.013)	-0.012	-0.009	-0.018*	-0.019*	-0.017
	(-1.16)	(-0.95)	(-1.21)	(-1.09)	(-0.78)	(-1.69)	(-1.71)	(-1.39)
Private Acquirer		0.010			0.007			0.024
		(0.35)			(0.26)			(0.85)
Subsidiary Acquirer		-0.005			-0.002			0.005
		(-0.15)			(-0.050)			(0.15)
After 2005		(-0.004)			-0.014			-0.007
		(-0.12)			(-0.46)			(-0.23)
Bank						0.099**	0.119***	0.106**
						(2.29)	(2.68)	(2.37)
Construction Materials							0.029	
							(0.57)	
Food and Beverage							0.079**	
							(2.24)	
Containers & Packaging							0.052	
							(1.07)	
Petrochemicals							0.046	
							(0.90)	
Textiles & Apparel							0.020	
							(0.39)	
Constant	0.083	0.070	0.042	0.022	0.007	0.079	0.065	0.053
	(0.97)	(0.76)	(0.46)	(0.24)	(0.07)	(0.84)	(0.68)	(0.47)
Adjusted -R^2	0.026	-0.0007	0.025	0.033	0.008	0.071	0.081	0.042
Number of Obs.	111	111	111	111	111	111	111	111

Table 4.5 Contd.

Panel B: Determinants of Target CAR for [-2, +2] event window

Dependent Variables	1	2	3	4	5	6	7	8
Merger	0.042	0.050						0.0002
	(0.96)	(1.07)						(0.003)
% Acquired			0.001	0.001*	0.001**	0.001*	0.001*	0.001
			(1.62)	(1.91)	(2.03)	(1.67)	(1.68)	(1.12)
% Toehold			0.0005					
			(0.55)					
Partial Acquisition								-0.003
								(-0.072)
Cross-Border	0.028	0.035	0.018	0.024	0.030	0.021	0.019	0.028
	(0.97)	(1.09)	(0.67)	(0.89)	(1.00)	(0.77)	(0.68)	(0.88)
Same Industries	0.028	0.026	0.018	0.023	0.022	0.020	0.028	0.019
	(1.05)	(0.98)	(0.68)	(0.89)	(0.81)	(0.78)	(1.04)	(0.71)
Experienced Acquirer	0.038	0.042		0.047	0.053	0.048	0.058*	0.057*
	(1.28)	(1.30)		(1.59)	(1.65)	(1.63)	(1.92)	(1.74)
Log of Market Cap.	-0.015	-0.013	-0.016	-0.014	-0.011	-0.021*	-0.023*	-0.019
	(-1.22)	(-0.97)	(-1.27)	(-1.13)	(-0.78)	(-1.68)	(-1.72)	(-1.32)
Private Acquirer		0.016			0.021			0.031
		(0.51)			(0.69)			(0.95)
Subsidiary Acquirer		-0.003			0.002			0.008
		(-0.09)			(0.051)			(0.20)
After 2005		-0.006			-0.015			-0.011
		(-0.18)			(-0.43)			(-0.31)
Bank						0.106**	0.128**	0.112**
						(2.10)	(2.49)	(2.15)
Construction Materials							0.027	
							(0.44)	
Food and Beverage							0.092**	
							(2.27)	
Containers & Packaging							0.063	
							(1.11)	
Petrochemicals							0.061	
							(1.04)	
Textiles & Apparel							0.010	
							(0.18)	
Constant	0.104	0.083	0.073	0.035	0.0002	0.097	0.082	0.057
	(1.03)	(0.76)	(0.69)	(0.33)	(0.002)	(0.88)	(0.73)	(0.44)
Adjusted -R^2	-0.003	-0.029	0.001	0.022	0.0001	0.053	0.066	0.016
Number of Obs.	111	111	111	111	111	111	111	111

Table 4.5 Contd.

Panel C: Determinants of Target CAR for [-15, +15] event window

Dependent Variables	1	2	3	4	5	6	7	8
Merger	0.071	0.093						0.128
	(0.95)	(1.17)						(1.26)
% Acquired			0.0006	0.0009	0.0009	0.0007	0.0007	-0.002
			(0.59)	(0.85)	(0.86)	(0.72)	(0.67)	(-0.91)
% Toehold			0.0007					
			(0.46)					
Partial Acquisition								-0.102
								(-1.54)
Cross-Border	0.065	0.087	0.045	0.055	0.068	0.052	0.062	0.085
	(1.33)	(1.59)	(0.95)	(1.16)	(1.33)	(1.10)	(1.27)	(1.54)
Same Industries	0.016	0.018	0.005	0.013	0.016	0.011	0.010	0.015
	(0.36)	(0.40)	(0.10)	(0.29)	(0.34)	(0.24)	(0.22)	(0.32)
Experienced Acquirer	0.075	0.091*		0.077	0.088	0.077	0.090*	0.083
	(1.48)	(1.66)		(1.49)	(1.58)	(1.50)	(1.68)	(1.46)
Log of Market Cap.	-0.068***	-0.076***	-0.071***	-0.068***	-0.075***	-0.074***	-0.073***	-0.086***
	(-3.19)	(-3.27)	(-3.28)	(-3.16)	(-3.20)	(-3.32)	(-3.08)	(-3.52)
Private Acquirer		0.035			0.027			0.034
		(0.64)			(0.49)			(0.61)
Subsidiary Acquirer		0.006			0.007			0.003
		(0.09)			(0.10)			(0.046)
After 2005		0.068			0.060			0.081
		(1.14)			(0.99)			(1.34)
Bank						0.091	0.094	0.109
						(1.03)	(1.02)	(1.21)
Construction Materials							-0.070	
							(-0.64)	
Food and Beverage							0.078	
							(1.07)	
Containers & Packaging							-0.080	
							(-0.80)	
Petrochemicals							0.025	
							(0.23)	
Textiles & Apparel							0.030	
							(0.29)	
Constant	0.554***	0.531***	0.577***	0.514***	0.501**	0.567***	0.546***	0.699***
	(3.22)	(2.87)	(3.15)	(2.76)	(2.47)	(2.94)	(2.73)	(3.13)
Adjusted -R^2	0.074	0.063	0.054	0.072	0.057	0.073	0.050	0.071
Number of Obs.	111	111	111	111	111	111	111	111

Table 4.5 Contd.

Panel D: Determinants of Target CAR for [-30, 0] event window

Dependent Variables	1	2	3	4	5	6	7	8
Merger	0.045	0.021						0.053
	(0.53)	(0.24)						(0.46)
% Acquired			-0.0002	0.0001	-0.0002	-0.0001	-0.0001	-0.0007
			(-0.20)	(0.07)	(-0.16)	(-0.09)	(-0.09)	(-0.39)
% Toehold			0.0003					
			(0.20)					
Partial Acquisition								-0.001
								(-0.01)
Cross-Border	0.011	-0.029	-0.008	0.003	-0.035	-0.0008	0.007	-0.026
	(0.20)	(-0.49)	(-0.16)	(0.06)	(-0.62)	(-0.016)	(0.12)	(-0.42)
Same Industries	0.008	0.019	-0.001	0.009	0.021	0.006	-0.005	0.019
	(0.16)	(0.39)	(-0.03)	(0.18)	(0.41)	(0.11)	(-0.10)	(0.37)
Experienced Acquirer	0.084	0.077		0.079	0.070	0.080	0.086	0.078
	(1.48)	(1.28)		(1.38)	(1.15)	(1.40)	(1.44)	(1.24)
Log of Market Cap.	-0.011	-0.020	-0.014	-0.011	-0.021	-0.020	-0.016	-0.029
	(-0.45)	(-0.77)	(-0.59)	(-0.47)	(-0.80)	(-0.80)	(-0.62)	(-1.08)
Private Acquirer		-0.054			-0.060			-0.044
		(-0.89)			(-1.02)			(-0.72)
Subsidiary Acquirer		0.082			0.079			0.086
		(1.11)			(1.05)			(1.13)
After 2005		0.027			0.027			0.035
		(0.41)			(0.41)			(0.52)
Bank						0.12	0.128	0.117
						(1.24)	(1.24)	(1.17)
Construction Materials							0.021	
							(0.18)	
Food and Beverage							0.105	
							(1.29)	
Containers & Packaging							-0.058	
							(-0.52)	
Petrochemicals							-0.043	
							(-0.37)	
Textiles & Apparel							0.007	
							(0.06)	
Constant	0.135	0.210	0.214	0.144	0.237	0.215	0.181	0.302
	(0.70)	(1.03)	(1.05)	(0.69)	(1.06)	(1.00)	(0.81)	(1.21)
Adjusted -R^2	-0.021	-0.015	-0.042	-0.024	-0.015	-0.019	-0.046	-0.030
Number of Obs.	110	110	110	110	110	110	110	110