





ΟΙΚΟΝΟΜΙΚΟ ΠΑΝΕΠΙΣΤΗΜΙΟ ΑΘΗΝΩΝ Ας. Ταξ. Ταξ.

ΠΡΟΓΡΑΜΜΑ ΜΕΤΑΠΤΥΧΙΑΚΩΝ ΣΠΟΥΔΩΝ

AΘΗΝΩΝ ΒΙΒΛΙΟΘΗΚΗ εισ. 80409

STOCK PRICE REACTION TO MERGER AND ACQUISITION ANNOUNCEMENTS: EVIDENCE FROM GREEK FIRMS LISTED ON ATHENS STOCK EXCHANGE

ΙΩΑΝΝΗΣ ΓΙΑΛΑΜΑΣ

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"...It is beyond the power of the human intellect to encompass all the causes of any phenomenon. But the impulse to search into causes is inherent in man's very nature."

War and Peace, Leo Tolstoy

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Abstract

The history of takeover activity is diverse and has long been a popular form of corporate investment, particularly in countries with Anglo-American forms of capital markets. The academic literature on mergers and acquisitions is replete with studies which evaluate the stock price reaction of the acquiring and target firm as well as the impact of mergers and acquisitions on the market value of the merging firms. Most of these studies have demonstrated that mergers and acquisitions seem to create shareholder value, with most of the gains accruing to the target company. However, while there is substantial evidence that shareholders of target firms, on average, realize large capital gains from corporate takeovers, the evidence of the profitability of takeovers for shareholders of bidder firms is less conclusive with some studies reporting negative and others reporting zero or slightly positive abnormal returns. The majority of academic research has focused on mature and developed capital markets like those of the U.S., Canada, U.K. and Western Europe. However, there is a lack of studies on merger and acquisitions activity involving the capital markets of developing counties. This study critically evaluates the result of previous academic research on the impact of mergers and acquisitions on shareholder value creation and empirically examines the stock price reaction to merger and acquisitions announcements in Greece. Using 318 merger and acquisition announcements during 1997-2005, this study finds that mergers and acquisitions in Greece seem to positively affect the value of both merging firms, with gains accruing to the shareholders of both target and acquiring firms. The results of this study also suggest that Greek companies are becoming more focused as long as increasing focus leads to higher market valuation and stock returns since the firms that are involved in focused mergers and acquisitions realize positive abnormal returns. However the results about the impact of domestic versus cross-border deals are less conclusive since the differences in the cumulative abnormal returns between domestic and cross-border deals indicate that the shareholders of acquiring firms obtain lower benefits in cross-border deals than in national transactions while the shareholders of target firms realize larger gains in cross-border rather than domestic transactions.





Part 1 - Introduction

The history of takeover activity is diverse and has long been a popular form of corporate investment, particularly in countries with Anglo-American forms of capital markets (Palepu et al. 2004). Based on Jensen and Ruback (1983), takeovers can occur through merger, tender offer, or proxy contest, and sometimes elements of all three are involved. In mergers or tender offers the bidding firm offers to buy the common stock of the target at a price in excess of the target's previous market value. Mergers occur when an acquiring firm and a target firm(s) agree to combine their entities under legal procedures in which the participants are incorporated and are negotiated directly with managers of the target firm and approved by the target's board of directors before going to a vote of target shareholders for approval. A tender offer is an offer to purchase a proportion of the outstanding shares of the target firm at specific terms on or before a specified date, made directly to target shareholders who decide whether to tender their shares for sale to the bidding firm. Proxy contests occur when an insurgent group, often led by dissatisfied former managers or large stockholders, attempt to gain controlling seats on the board of directors. The term "acquisition" is used in a generic sense to refer to any takeover (Halpern, 1983).

Empirical research on takeover activity has generally concluded that mergers and acquisitions occur in cyclical waves especially in Europe (Mitchell and Mulherin 1996, Andrade et. al. 2001). The second industrial revolution culminated in the first European merger wave (1880–1904) which aimed at creating monopolies. Anti-trust regulation curbed monopoly power, but also initiated a second merger wave (1919–1929) that led to increased vertical integration. The third European merger wave started in the 1950s, but reached its peak only in the mid-1960s. The focus of this wave was diversification and the creation of large conglomerates to face the global markets. The technological progress in biochemistry and electronics, as well as the development of new financial instruments and markets, like the junk bond market, was behind the fourth merger wave (1983–89). The financial innovations facilitated the financing of acquisitions and also caused an unprecedented high level of hostile bids. During the last decade, a fifth wave (1993–2000) emerged coinciding with a sustained economic boom, the development of new European stock exchanges, like the European New Markets and EASDAQ, and the growth in the internet and

telecommunications industries. In 2001, the collapse of consumer confidence in these industries as well as the overcapacity in the traditional sectors caused an abrupt reduction in merger activity.

The start of the fifth merger and acquisitions wave was clearly in 1993 as the total dollar value paid for target firms in the USA and Europe doubled after four consecutive years of decline in mergers and acquisitions activity (Goergen and Renneboog 2004). An even steeper rise happened in 1996: the total value of US and European acquisitions rose to \$1,117 million, with Europe accounting for 37% of the worldwide value of mergers and acquisitions. In the following years, the merger and acquisitions activity gained even more strength with a value of \$1,574 million in 1997, 35% of which was realized in Europe, \$2,634 million in 1998 (33% in Europe), \$3,319 million in 1999 (47% in Europe), and \$3,451 million in 2000 (43% in Europe). The year 1999 was remarkable for the European merger and acquisitions market, as it was now almost as large as the U.S. market. Also, 12% of the total value of the European market was now generated by deals in excess of \$ 100 million.

A typical phenomenon of the recent mergers and acquisitions wave is that acquisitions are now larger in size and tend to be global focusing in developing countries (Cosh and Hughes, 1996). In Greece for example, the first merger outbreak started in 1998¹. It was the beginning of an effort made by Greek firms to adapt to the new global environment in the market of goods, services and capitals. The period from 1998 to 2000 was the most active of the last decades in the Greek market for corporate control. An even steeper rise took place during 2005 where the total value of mergers and acquisitions rose by 114% to \in 4,3 billion from \in 2,0 billion in 2004, while in 2003 the total value of takeover transactions was \in 3,0 billions. In 2005, 73%, as compared to 79% in 2004, of the total value of mergers and acquisitions derived from the ten largest transactions. In the last three years starting from 2003, telecommunication and banking industries were among the sectors with the most significant transactions. In 2005, 34 transactions took place in telecommunication industry as well as in banking sector, while in 2004 31 transactions took place in

The facts and figures about the merger and acquisition activity in Greece were based on annual Mergers and Acquisitions surveys about the Greek takeover market performed by PriceWaterHouseCoopers and are available at their internet site www.pwc.gr.

banking and 34 deals in telecommunication sector respectively, with the completion of the acquisition of Vodafon-Panafon from Vodafone Group plc to be considered as the most significant transaction of the year. Similarly, in 2005 the most significant takeover activity, that of TIM from the international private equity funds Apax Partners and Texas Pacific, had also been taken place in the telecommunication sector.

The semi-strong-form of the efficient market hypothesis suggests that the current price fully incorporates all publicly available information. Public information includes not only past prices, but also data reported in a company's financial statements, corporate announcements like mergers and acquisitions and expectations regarding macroeconomic factors such as inflation and unemployment rates. In a capital market that is efficient with respect to public information, stock prices quickly adjust following a merger or acquisition announcement, incorporating any expected value changes. Moreover the entire wealth effect of the takeover should be incorporated into stock prices by the time uncertainty is resolved.

The academic literature on mergers and acquisitions is replete with studies which evaluate the stock price reaction of the acquiring and target firm as well as the impact of mergers and acquisitions on the market value of the merging firms. Empirical research on mergers and acquisitions has revealed a great deal about their trends and characteristics over the last century. For example a profusion of event studies has demonstrated that mergers seem to create shareholder value, with most of the gains accruing to the target company.

The proposition that a competitive market for corporate control effectively limits managerial divergence from shareholder wealth maximization implies that corporate takeovers are beneficial to shareholders of both firms involved in the transaction. However, while there is substantial evidence that shareholders of target firms, on average, realize large capital gains from corporate takeovers, the evidence of the profitability of takeovers for shareholders of bidder firms is mixed and less conclusive. Studies measuring abnormal stock price behavior around takeover events in the U.S. report average bidder firm performance that ranges from significantly positive in all-cash tender offers and horizontal mergers in the 1960s, to significantly

negative in all-stock exchange mergers in the 1980s. Gains to bidders are generally found to be lower the greater the degree of observed competition for the target, whether from incumbent management or from rival bids (Jarrell and Poulsen, 1989; Schwert, 1996).

While the majority of academic research has focused on the U.S., Canada, U.K. and Western Europe (Brealey at al, 1998), there is a lack of studies on merger and acquisitions activity involving developing counties and especially Greece. Thus, the objective of this study is to make a contribution towards filling the literature gap by empirically examining the impact of takeover activity on shareholder value of the acquiring and target firms by analyzing the stock price reaction of Greek firms listed on the Athens Stock Exchange (ASE) on merger and acquisitions announcements for the period from 1997 to 2005. More precisely, this study applies an event study methodology to determine the changes in the firms' stock market behavior occurring with the announcement of a merger or an acquisition. The main findings of this study suggest that mergers and acquisitions in Greece seem to positively affect the value of both merging firms, with gains accruing to the shareholders of both target and acquiring firms.

The remainder of this study is structured as follows. In part 2 an attempt is made to describe the major motives for takeovers that have been advanced in the academic literature as well as to provide and critically evaluate the results of previous academic research on the impact of mergers and acquisitions on shareholders' value creation. Part 3 describes the data used for this analysis and the methodology employed. Then, the main empirical results are presented in Part 4. Some concluding remarks about the impact of mergers and acquisitions on the shareholders' wealth of Greek firms along with some managerial implications and research limitations are discussed in the last part of the study.



Part 2 – Literature Review

Takeovers are mainly investment decisions by the acquiring firm. The expected benefits of the takeover are the incremental cash flows generated by the combination of the previously independent firms or by the achievement of control over the operations of the target firms. The overall cost of this investment decision is equal to the search and negotiating costs plus the actual amount paid or the equivalent amount of the securities issued to the shareholder of the target firm. The net present value of the decision represents the expected gain to the shareholders of the acquiring firm. To the extent that investors expect the net present value to be positive there will be an increase in the stock price of the acquiring firm.

The gain to the target firm is the difference between the value received for their shares and the value of the shares reflecting the present value of the expected net cash flows under pre-acquisition management and production techniques. The sum of the gains to the firms in the acquisition reflects the expected value of the economic impact. The split of this total gain and the impact on stock prices will depend on the value received by shareholders of the target firm. This in turn depends on the state of competition in the market of corporate control² (Jarrell et al. 1988).

According to Halpern (1983), there are two classes of takeover theories. The first refers to non-value maximizing behavior by the management of acquiring firms. Takeovers are attempts to maximize growth in sales or assets or to control a large empire. Acquisitions of this type have no economic gains to be divided among the firms and given the costs of negotiating and the potential problems of coordination of the expanding corporate empire, it is likely that there would be an overall economic loss. Thus any positive gains obtained by the target shareholders as an inducement would be offset by a loss to the acquiring firm's shareholders. Target firm would be expected to have above normal rates of return measured over a period ending either the first public announcement date of the acquisition or at the effective date of the

² Jensen and Ruback (1983) consider the market for corporate control, often referred to as takeover market, as a market in which alternative managerial teams compete for the rights to manage corporate resources. Hence, the takeover market is an important component of the managerial labor market; it complements the internal and external managerial labor markets discussed by Fama (1980).

acquisition. Shareholders of the acquiring firm would be expected to earn below normal rates of return over the measurement period.

It has also been suggested that some takeovers are primarily motivated by the self-interest of the acquirer management (Morck et al., 1990). Several reasons have been advanced to explain the so-called agency motives. Among them is diversification of management's personal portfolio (Amihud and Lev, 1981), use of free cash flow to increase the size of the firm (Jensen, 1986), and acquiring assets that increase the firm's dependence on the management (Shleifer and Vishny, 1989). The basic argument in most of these explanations is that acquisitions result in the extraction of value from the acquirer shareholders by acquirer management. "Specialist" managers acquire firms in their own lines of business so that the success of the combined entity will depend even more on their specific skills. The management can exploit this dependency to increase perquisite consumption or defeat rivals who are better than itself in running some of the operations of the firm. Such management actions can result in agency costs that reduce the total value of the combined firm available to shareholders.

The second general class of theories refers to value maximization motivations in which the acquisition should meet the same criteria as any other investment decision. Thus, there should be a positive expected economic gain from the acquisition and depending on the degree of competition in the market of corporate control some proportion of the economic gain will accrue to the target firm's shareholder. Regardless of this state of competition, the acquiring firm should at least earn a normal rate of return.

It has been well documented that there are gains from takeovers arising from increased productive efficiency when the real assets of the two firms are combined (Mandelker, 1974). This synergy hypothesis suggests that combining these assets will result in an increased aggregate market value of the two firms. These gains can occur from economies of scale³ of horizontal mergers, excess capacity in some factors of

³ Economies of scale refer to the long-run reduction in the per unit cost of making a product as the volume of the production rises, allowing all inputs to be varied optimally.

production, like managerial or financial control, or economies of scope⁴ which generate cost advantages when output is increased in post-acquisition cash flows. According to Berkovitch and Narayanan (1993) the synergy motive assumes that managers of targets and acquiring firms maximize shareholder wealth and would engage in takeovers activity only if it results in gains to both sets of shareholders. Therefore, it follows that the measured gains to both target and acquirer shareholders would be positive. If the target has some bargaining power, either because it can resist the acquirer or because there is competition among potential acquirers for the target, then the target gain increases with total gain.

As stated by Roll (1986), the hubris hypothesis maintains that acquisitions are motivated by managers' mistakes and that there are no synergy gains. Suppose the bidder management is equally likely to overestimate as underestimate the synergy. It engages in takeovers only when it overestimates. Since the synergy is presumed to be zero, the payment to the target represents a transfer between the target and the acquirer. It follows that the higher the target gain, the lower the bidder gain, and, if the hubris hypothesis holds, one should not observe positive total gains in takeovers. However, there is evidence that takeovers on average result in positive total gains (Berkovitch and Narayanan, 1993). As Roll (1986) suggests, this can be explained as if there are true synergies in some takeovers but managers still make valuation errors.

Another motivation is based on an attempt by the management of the acquiring firm to take advantage of an asymmetry in information. This information hypothesis postulates that the acquirer has information concerning the target firm that is not available to other participants in the market and is not reflected in the current share price of the target firm. The information may be that the target shares are undervalued based on publicly available information or that there are efficient operating strategies that could be used by the target's management and if the existing management knew these strategies they could become more efficient and the stock price would increase. The announcement of an acquisition bid should be a signal that the market place and the asymmetry in information should be ameliorated.

⁴ Economies of scope refer to the reduction in overall costs from the joint production of complementary products.

The last set of value maximization motives is based on the attempt of the acquiring firm to obtain control over the target firm. The internal efficiency hypothesis, as stated in the academic literature (Dodd and Ruback, 1977), implies that the assets of the target firm were not being utilized efficiently prior to the takeover attempt. The bidding firm is assumed to be motivated by information on this inefficiency. A special case of this hypothesis is that corporate takeovers are a means of disciplining inept management or forcing existing management to follow a profit maximizing strategy (Manne, 1965). Whatever the origins of the inefficiency, the announcement of a takeover attempt is viewed as positive information for the target firm and stockholder's wealth will increase if the inefficiency is eliminated. However, the implication of the internal efficiency hypothesis for the market value of bidding firms is less clear. According to Dodd and Ruback (1977), the impact of the takeover attempt depends upon the market's evaluation of the new information and the offering price, and either normal or positive abnormal returns are consistent with this hypothesis.

Many of the motives analyzed so far appear to be reasonable explanations of merger and tender offer activity. However, a number of these hypotheses have similar implications for the impact of the acquisition on the security prices of the affected firms. Thus it may be very difficult to distinguish between these competitive hypotheses.

- Questions concerning the impact of a merger on the market value of merging firms have occupied a prominent position in the literature of economics and finance for at least twenty-five years. In response to these questions, a number of carefully conducted empirical studies have documented the effect of mergers on the wealth of common stockholders of merging firms. These studies have demonstrated that mergers and acquisitions seem to create shareholder value with most of the gains accruing to target company.
 - More precisely, the shareholders of target firms enjoy returns that are on average significantly positive in almost all cases. The findings of ten studies summarized in table 1 of Appendix 1, reveal returns that are economically significant, despite variations in time period, type of deal (i.e merger or tender offer), industry involved.

observation period and measure of cumulative abnormal returns. Jarrell and Poulsen (1989), Servaes (1991), Kaplan and Weisbach (1992), for instance, report average US target abnormal returns of 29% for the period 1963–86, 24% for the period 1972–87 and 27% for the period 1971–82, respectively. In the 1990s, abnormal returns in the USA remain at a similar level of 21% (Mulherin and Boone, 2000). The studies reported in the table 1 of Appendix 1 also show large cumulative abnormal returns, although these are significantly smaller for more recent transactions. Most of these studies find that cumulative abnormal returns occur in the days following the announcement and the larger the event window the greater the marginal increase in the amount and the significance of the cumulative abnormal returns.

Interestingly, positive cumulative abnormal returns are also detected in the days prior to the announcement date, suggesting that the stock market forecasts probable merger targets in advance of any merger announcement, showing that the entire market reaction to a merger bid does not occur at the time of the announcement. Asquith (1983), for instance, examines abnormal stock returns throughout the entire merger process for both successful and unsuccessful merger bids and finds among others that the excess returns occur throughout the period from the press date (the date when the financial press first reports a merger bid, and it proxies for the date that information about the merger bid becomes public) to the outcome date (the date the financial press reports the conclusion of a merger bid) as new information is released. Furthermore, in unsuccessful merger bids, the market reverses the initial positive excess returns for both target and bidding firms. Together these results suggest that the announcement of a merger bid contains only limited information.

Negative returns are only reported in one of these studies for windows smaller than ten days (Karceski et al., 2005) while negative returns are also reported for windows prior to the event date (Danbolt, 2004).

Consistent with Bruner (2002) it can be argued so far that the mergers and acquisitions delivers a premium return to the shareholders of target firms. However, the evidence on returns to the buyer firms' shareholders is less conclusive. The evidence is evenly distributed between studies that report negative cumulative abnormal returns and those that report zero and slightly positive cumulative abnormal

returns. Table 2 and 3 of Appendix 1 summarizes the findings of twelve studies. These studies have been divided between those that report negative returns to shareholders and those finding zero or positive cumulative abnormal returns.

Table 2 lists eight recent studies that report negative cumulative abnormal returns. The negative returns vary between less than 1% and 5%, with different event windows, most of them including periods prior to the announcement date. These cumulative abnormal returns are in most cases statistically significant. Table 3 enumerates four recent studies that report zero or positive returns to acquirers. These returns range from zero to 7% and in most cases they are very small, especially when compared to the cumulative abnormal returns of the target firms. Since the findings of these studies are distributed evenly among studies showing value destruction and those showing value creation it is difficult to conclude that in aggregate there is strong evidence for either positive or negative cumulative abnormal returns to the shareholder of bidder firms.

Several characteristics of takeover bids may affect the division of gains between target and acquiring firms' shareholders, leaving the shareholders of the bidder firms with negligible or negative abnormal returns.

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More precisely, finance theory predicts that firms undertake new capital investments when the investments have positive effects on firm's value. McConnell and Muscarella (1985) find support for this premise, reporting a significant, positive share price reaction on average when a sample of industrial firms announced increases in planned capital expenditures. Therefore, the evidence of negligible or negative wealth effects for acquiring firms at takeover announcements leads many observers to argue that mergers or acquisitions are poor investments. As mentioned earlier, Roll (1986) suggests that managers undertake corporate combinations because of "hubris," and this "overbearing" confidence can result in overpayment for target shares. Wiedenbaum and Vogt (1987) argue that managers prefer to increase the size of their corporation because the ability of shareholders to monitor management decreases in larger, more complex organizations. Mitchell and Lehn (1990) find that firms which make "bad" acquisitions, as measured by negative returns at the announcement of a bid, are more likely to be the subject of later takeover bids themselves. Lewellen et al.

(1985) find support for an additional implication of this explanation. They argue that firms in which managers hold large equity positions would be less likely to initiate takeovers resulting in the loss of shareholder wealth. They report a positive relation between the wealth effects from takeovers on acquiring firms and the percent of equity held by senior management.

Moreover, takeover announcements may contain little information about the acquiring firm. If the investment in the target firm is small relative to the total value of the acquiring firm, the increase in value from the merger may not cause much change in the acquirer's share price. Asquith et al. (1983) underline the importance of this consideration and find evidence that abnormal returns earned by acquirers increase as target size increases relative to acquirer size.

In addition, the market may have already anticipated the acquisition strategy of the bidding firm, thus mitigating any valuation effect at the time of the formal announcement (Schipper and Thompson, 1983). For example, if the acquiring firm has announced that it is actively pursuing acquisitions, then any abnormal return at the announcement of a specific bid would reflect information about that specific bid relative to expected acquisitions and not about the desirability of the acquisition program in general.

Last but not least, the degree of competition among bidders, as mentioned earlier, may also affect the gains of the acquiring firms' shareholders. In particular, if there are no competing bidders for a target, the bidder should offer a price just high enough to obtain the number of shares the bidder desires. If alternative bidders, however, could also benefit from the merger gains, one would expect to see the offer price bid up and a larger share of the merger returns going to the target and a smaller share kept by the bidder. Comment and Jarrell (1987) and Bradley et al. (1988), report that multiple bidders for a target are associated with significantly higher abnormal returns to target shareholders. They show that returns to acquiring firm shareholders are significantly positive in single-bidder contests and insignificantly different from zero in multiple-bidder contests.

The combination of positive cumulative abnormal returns to the target firms and the breakeven returns to the bidder firm raise the question of the total value creation from the takeover activity. A large percentage gain to the target firms' shareholders could be more than offset by a small percentage loss to the bidder firms' shareholders. Table 4 of Appendix 1 summarizes the results of five recent studies that focused on the combined weighted returns for the bidder and the target firm. The majority of these studies report positive combined returns. Nevertheless, it is worth mentioning that the magnitude of the cumulative abnormal returns is relatively low. Atkas et al. (2001) focusing on a sample of mergers taken place in the second half of the 1990s find that half of the deals were value-destroying. Overall, the findings of these studies coincide with previous evidence in academic literature suggesting that the mergers and acquisitions do result in a total increase in the combined shareholder value of the merging firms (Jensen and Ruback, 1983).

An interesting study is that of Dennis and McConnell (1986), where they examine the returns to various classes of securities of both acquired and acquiring companies around the announcement dates for a sample of 132 U.S. mergers which took place over the period 1962 through 1980. The results indicate that, on average, acquired companies' common stockholders, convertible and non-convertible preferred stockholders and convertible bondholders receive statistically significant gains in mergers as do acquiring companies' convertible preferred stockholders. Their results also indicate that, on average, acquired companies' non-convertible bondholders and acquiring companies' convertible bondholders, non-convertible preferred stockholders, and non-convertible bondholders neither gain nor lose by a statistically significant amount in mergers. Finally, for acquiring companies' common stocks, the results are sensitive to the time period used to measure returns. However, on average, there is no evidence that acquiring companies' stockholders lose, and there is some statistically significant evidence that they gain in mergers. They also provide evidence that mergers, on average, are value-creating activities for combined firms and for both the acquired and acquiring companies individually. Thus, their results are consistent with the 'synergy' hypothesis of mergers.

While the bulk of the academic research on the financial performance of mergers and acquisitions has focused on stock returns around the takeover announcement a

surprisingly large body of studies has also examines long-run stock returns following acquisitions. However, the evidence on long-term post-merger bidder performance still remains controversial, with different researchers finding contrasting results. Bradley and Jarrell (1988), Langetieg (1978), and Franks et al. (1991), for example, do not find significant underperformance in the two to three years after the acquisition. Others, such as Asquith (1983) and Agrawal et al. (1992), conclude that these firms do experience significantly negative abnormal returns in the first few years after the merger. Loderer and Martin (1992) find some evidence of negative returns in the first three years following the acquisition, but none after the fourth year. They also find that the negative abnormal performance progressively diminishes through the 1960s and the 1970s and disappears in the 1980s.

In contrast to event studies over short horizons, there are a number of methodological concerns with long-term event studies. More precisely, long-term event studies are sensitive to the model used for computing normal returns, which may partially explain the conflicting conclusions of academic research. The studies of both Agrawal et al. (1992) and Loderer and Martin (1992) adjust for firm size and beta risk. However, Fama and French (1992) have shown that beta does not capture much of the cross-sectional variation in average stock returns. Firm size and book-to-market equity combine to explain a much larger proportion of the variation in average stock returns. Consequently, Fama and French (1993) criticize the Agrawal, Jaffe, and Mandelker results for ignoring the book-to-market effect. They conjecture that acquiring firms might tend to be large, successful firms with low book-to-market ratios. Hence, they argue that a methodology controlling for the below-average returns of low book-to-market firms would reveal no persistent negative abnormal returns.

Rau and Vermaelen (1998) examine the issue of long-horizon bidder performance in mergers and acquisitions after explicitly adjusting for both firm size and book-to market effects, as suggested by Fama and French (1993) and find that, on average, bidders in mergers underperform equally weighted control portfolios with similar sizes and book-to-market ratios by a statistically significant 4% over a period of three years after the merger completion date. On the other hand, bidders in tender offers earn a statistically significant positive abnormal return of 9%, on average. Hence, in contrast to Fama and French's (1993) conjecture, they argue that the negative

abnormal returns to bidding firms in mergers are not simply a result of not adjusting for book-to-market ratios. To explain the cross-sectional variation in long-run bidder returns, they examine three hypotheses: the performance extrapolation hypothesis⁵, the means of payment hypothesis⁶, and the earnings per share (EPS) myopia hypothesis⁷. They conclude that the performance extrapolation hypothesis is more consistent with their data than the other two hypotheses. Specifically, they find that value bidders far outperform glamour bidders in the three years after the completion of a merger or tender offer. After adjusting for size and book-to-market ratio, they find that value bidders earn statistically significant positive abnormal returns of 8% in mergers and 16% in tender offers, while glamour bidders earn statistically significant negative abnormal returns of -17% in mergers and insignificant abnormal returns of 4% in tender offers.

Moreover, some studies (Kothari and Warner, 1997; Barber and Lyon, 1997) have questioned the validity of standard parametric tests in testing the statistical significance of long-horizon abnormal returns. Barber and Lyon (1997), for example, document that long-horizon t-statistics are negatively biased, in many cases detecting significant abnormal performance when none is present. An additional statistical concern with many long-term event studies is that the test statistics assume that abnormal returns are independent across firms. However, major corporate actions like mergers and acquisitions are not random events, and thus event samples are unlikely to consist of independent variations. As noted earlier, mergers cluster through time

⁵ According to the performance extrapolation hypothesis, the market over-extrapolates the past performance of the bidder when it assesses the value of an acquisition. At the same time, managers and other decision makers (such as large shareholders and the board of directors) who have to approve an acquisition, indirectly receive feedback on the quality of the bidder's management from the market. In companies with low book-to-market ratios (glamour firms), managers are more likely to overestimate their own abilities to manage an acquisition, i.e., they will be infected by hubris (Roll, 1986). On the other hand, in companies whose management has a poor track record, such as companies with high book-to-market ratios (value stocks), managers, directors, and large shareholders will be more prudent before approving a major transaction that may well determine the survival of the company. Because these acquisitions are not motivated by hubris, they should create shareholder value rather than destroy it.

⁶ The means of payment hypothesis predicts that, on average, long-run abnormal returns to bidders will be negative in share financed acquisitions and positive in cash financed acquisitions.

⁷ The EPS myopia hypothesis predicts that mergers with a positive impact on EPS will ceteris paribus, perform the worst. Merging with a company with a lower price-to-earnings ratio than the buyer's and paying for the acquisition with shares may inflate the buyer's EPS. Managers find it easier to justify an acquisition if it is accompanied by an EPS increase rather than a decrease.

and by industry. According to Andrade et al. (2001) this clustering leads to positive cross-correlation of abnormal returns, which in turn means that test statistic that assume independence are severely overstated.

Given the serious methodological concerns with long-run empirical literature, as outlined above, only the short-terms returns of target and bidder firms will be examined in this study.

A large part of the recent academic literature also tries to identify variables which are able to explain the merger and acquisition activity. The link between a firm's investment opportunities like takeover activities and its corporate finance activities has long been an interesting subject of corporate finance research.

Travlos (1987) investigates the returns of bidder firms' shareholders at the announcement of a takeover proposal and finds that they are related to the method of payment. Specifically, he detects significantly lower abnormal returns for firms financing a takeover with common stock than with cash. His findings support the asymmetric information hypothesis of Myers and Majluf (1984). According to this theory, in a world of asymmetric information, the method of payment may signal valuable information to the market. If the bidding firms' managers possess information about the intrinsic value of their firm, independent of the acquisition, which is not fully reflected in the pre-acquisition stock price, they will finance the acquisition in the most profitable way for the existing stockholders. In the context of Myers and Majluf model, the managers will prefer a cash offer if they believe that their firm is undervalued, while a common stock exchange offer will be preferred in the opposite case (Deangelo et al., 1984). Accordingly, the market participants interpret a cash offer as good news and a common stock exchange offer as bad news about the bidding firm's true value. Berkovitch and Narayanan (1990) suggest that if such information effects are important, the bidding firm's stock price change at the proposal of the announcement will reflect the gain from the takeover and the information effects. Therefore other things being equal, the returns to bidding firms in cash offers will be higher than in common stock exchange offers. On the other hand, Hansen (1987) argues that, if target shareholders are better informed than outsiders about the value of their firm prior to acquisition, equity offers will be preferred to cash offers when target equity is believed to be undervalued. In this case, target shareholders prefer to retain an equity position in the merged entity in order to participate in the gains from the post-merger revelation of the previous target undervaluation. Fishman (1989) argues that, when the fixed costs of collecting information about the target are high, cash financing is more likely than stock financing to be used as a means to signal high valuation in order to deter competing offers for the target firm.

Chang and Suk (1998) examine the bidding firms' stock returns upon the announcement of takeover terminations from 1982 to 1990 in the U.S. They find a systematic relation between the method of payment and bidder returns around the announcement of a takeover termination. More precisely, firms that offer common stock experience a positive average abnormal return of 1.48% and firms that offer cash experience a negative average abnormal return of -0.50%. They also find that positive average abnormal return earned by common-stock-financed bidders at termination depends on bidders initiating the termination. When terminations are initiated by the target firm, common-stock-financed bidders earn a return not significantly different from that earned by cash-financed bidders. This is because no information about the bidding firm's value is revealed by the bidder, when a takeover is terminated by the target firm. Their evidence is consistent with the asymmetric information hypothesis that the managerial decision not to issue common stock conveys favourable information to the market.

Consistent with the Myers-Majluf concept of negative information conveyed by stock issuance is also the findings of Peterson and Peterson (1991). They examine the role of the medium of exchange in the explanation of returns and the distribution of wealth between the shareholders of acquiring and acquired firms of 272 mergers and acquisitions consummated between 1980 and 1986 in the U.S. and they find that acquiring firms that use a stock-for-stock exchange to acquire another firm tend to have negative announcement returns.

The method of financing has also different tax implications especially in the U.S.

Cash offers generate tax obligations for the target firms' stockholders but allow the acquiring firms to raise the depreciation basis of the acquired assets to their market.

value. Common stock exchange offers are, in general, tax-free acquisitions, so that any capital gains realized by the target firm's stockholders are deferred until the stock is sold, but the depreciation basis of acquired assets remains the same (Palepu et. al, 2004). Due to this differential tax treatment, the shareholders of the target firm are likely to demand a higher acquisition price (i.e. premium) in case of a cash offer in order to be compensated for their immediate tax obligations. Because a cash purchase increases the depreciation base by the value of the acquired asset, the premium paid will be incorporated in the bidding firm's tax shield. Therefore, the effect on the shareholders of the bidding firm will depend on the premium paid to the shareholders of the target firm relative to the value of the increased tax shield acquired. Wansley et al. (1983), Huang and Walkling (1987) and Asquith et. al (1987) find that higher abnormal returns for cash offers than for stock exchange offers are consistent with the tax hypothesis as described above.

Franks et al. (1988) document that U.S. and U.K. target shareholders realize significantly greater gains from cash offers relative to stock offers. Servaes (1991) finds similar evidence for a sample of U.S. targets. Loughran and Vijh (1997) report that U.S. firms completing stock-financed mergers experience a significantly negative 25% excess return over the five—year period following the announcement. In contrast, acquiring firms completing cash tender offers gain a positive excess return of 62%. Similarly, Wansley et al. (1983) observe that the cumulative abnormal return for acquired firms in cash mergers is 38.65% for the period 40 days before the event date, while for merger financed with stock the cumulative abnormal return is 25.4%. The difference is found to be statistically significant. This evidence strongly suggests that the financing decision of a takeover activity is relevant to both the acquiring and target firms' shareholders.

Halpern (1983) reviewing a number of event studies applied to mergers and acquisitions refers to 'a study by Yagil that identifies the method of payment in a sample of pure conglomerate mergers. Over the sample period 1948-1976, 50% of the mergers were stock for stock exchanges, 29% were cash financed and 21% a combination of various types of securities including convertibles, warrants, and preferred shares. Using the event date defined as the merger date, the cumulative abnormal return eight months before the event date was 5.3% for the acquiring firm.

and 18.7% for the target firms when the acquisition was financed with stock. For cash mergers the cumulative abnormal return over the same period was 7.9% for the bidder and 31.9% for the target firm'.

Amihud, Lev and Travlos (1990), Martin (1996) and Ghosh and Ruland (1998) consider the determinants of financing method of a takeover activity and investigate the importance of bidder management stockholdings on US acquisitions between 1978 and 1988. All three studies conclude that buyer management shareholdings have a negative effect on stock financing. With the exception of Martin (1996), the analyses only cover large deals involving publicly listed targets. More precisely, Amihud, Lev and Travlos (1990) examine 209 acquisitions by Fortune 500 firms over the period 1981-1983 and find that bidder management and board shareholdings reduce the probability of stock offers, controlling for target sales. Ghosh and Ruland (1998) extend Martin's study by examining shareholdings of target managers using a sample of 212 large US acquisitions. They also report that stock financed acquisitions significantly decrease over an intermediate range of buyer management shareholdings. However, while Martin (1996) includes private targets, his analysis does not differentiate between them and public targets. Using a sample of 846 completed acquisitions of public and private firms by NYSE and AMEX listed bidders, Martin reports that higher buyer growth opportunities lead to more stock financing, while an intermediate range shareholdings by buyer managers reduce stock financing. His findings indicate that both the acquirer's and the target's investment opportunities are important determinants of the method of payment, although acquiring firm size is not related to payment method.

In an effort to examine the effects of the method of payment around a takeover announcement while controlling for the target firm's institutional ownership, Suk and Sung (1997) find no relation between bid premiums (i.e. target abnormal returns) and the institutional ownership of the target firm in cash offers. They also find no difference in premiums between cash offers and stock exchange offers, even after controlling for the institutional ownership of the target firm and other tax related variables. These results are inconsistent with both the tax hypothesis and the information effect hypothesis as described above. This study finds a systematic difference in targets returns between mergers and tender offers. In effect, abnormal

returns of tender offers are significantly higher than those of mergers even after controlling for the method of payment. However, there is no difference in premiums between mergers and tender offers.

The findings of Suk and Sung (1997) are consistent with the competition expectation hypothesis, which suggest that the likelihood of future competition might be greater in tender offers than in mergers⁸. In friendly transactions such as mergers, target management shares private information with the bidder to implement the highest valuation of the combined firm (Shleifer and Vishny, 1986). Since the bidder has superior information about the target in a friendly acquisition, potential bidders are less likely to start a competing bid. On the other hand, in hostile takeovers such as tender offers, potential bidders are more likely to start a competing bid because they assume that the target management and the hostile bidder will not share information. Therefore, target abnormal returns around the takeover announcement may be higher for tender offers than for mergers even if the premiums for tender offers are not different from those for mergers. This implies that the demand curve for the target shares would shift upward at the announcement of a tender offer because of the expectation of future competition.

According to Schwert (2000), hostility is usually perceived when an offer is made public that is aggressively rejected by the target firm. Consequently perceptions of hostility are closely linked with takeover negotiations that are far from completion. Often firms engage in confidential negotiations before there is a public announcement of a bid or an intention to bid. In some cases, the first public announcement is of a successfully completed negotiation, which would be perceived to be friendly, even if the early stage private negotiations would have seemed hostile if they had been revealed to the public. In other cases, private negotiations break down and one of the parties decides that public information about the potential bid would enhance its

⁸ Mergers are usually friendly deals that enjoy the cooperation of incumbent managers. Tender offers are made directly to target shareholders, often to overcome resistance from incumbent managers, and indicate greater confidence in the acquirer's ability to realize efficiency gains from the acquisition. Jensen and Ruback (1983) remark: "Mergers are negotiated directly with target's managers and approved by the target's board of directors before going to a vote of target shareholders for approval. Tender offers are offers to buy shares made directly to target shareholders who decide individually whether to tender their shares for sale to the bidding firm."

bargaining position. For example, bidders might choose to reveal their intentions to put stockholder pressure on target managers. Likewise, targets might reveal a takeover attempt to attract alternative bidders. Because public announcements of takeover attempts are part of negotiating strategies, the problem of distinguishing between hostile and friendly transactions is complex.

In his study, Schwert (2000) provides evidence that offers identified as hostile by prebids events are associated with reductions in the bidder's stock price and concludes that most of the characteristics of takeover offers that are related to hostility seem to reflect strategic choices made by the bidder or the target firm to maximize their respective gains from a potential transaction while mentioning that bidders choose to use hostile offers rationally. According to Schwert, the higher premiums paid to target shareholders and the lower success rates associated with unnegotiated offers do not result in lower bidder stock returns in most of the cases examined.

Bradley et al. (1988) argue that the choice between merger and tender offer in an acquisition is motivated by cost and that the cost of acquiring a firm is linked to the control premium required by target management. A premium for control need not be offered unless target management's shareholdings are sufficient to block the transfer of control. Mergers permit payment of this control premium directly to target management in the form of post-acquisition contracts. Otherwise, control-related increments in the tender premium go to all shareholders, including non-managers. Thus, merger agreements allow separate payment of the control premium to those parties that require it. According to Bradley et al. this implies that target shareholders will earn lower premiums in mergers. Comment and Jarrell (1987), however, note that tender offers can also involve prior pre-announcement negotiations. Thus, the existence of any control premium related to form of acquisition becomes an empirical issue.

Jensen and Ruback (1983) suggest that larger target residuals are earned in tender offers than in mergers. They compute an average of the abnormal returns reported by various studies, weighted by the different sample sizes involved. For mergers, the weighted abnormal target firm return is 16.3% over the month before announcement. For tender offers, the weighted target firm return is 30.9% over the two-month period.

surrounding the announcement dates⁹. The magnitude of this difference is interesting, particularly since mergers involve an exchange of all of a target firm's shares, whereas tender offers are often for less than 100% of the target firm's shares.

Loughran and Vijh (1997) examine 947 U.S. takeovers during the period 1970-1989 and find that acquirers that make merger bids earn, on average, 15 .9% less than matching firms whereas acquirers that make tender offers earn 43.0% more than matching firms during a five-year period after acquisition. Consistent with Martin (1996), that the form of payment is partly endogenous to the mode of acquisition, they argue that mergers are more often financed with acquirer's stock whereas tender offers are predominantly cash financed.

Rau and Vermaelen (1998) using a methodology robust to the criticisms of the standard long-horizon event study methodology argue that acquirers in mergers under perform in the three years period after the acquisition while acquirers in tender offers earn a small but statistically significant positive abnormal return. However, the long-term underperformance of acquiring firms in mergers is not uniform across firms. It is predominantly caused by the poor post-acquisition performance of low book-to market 'glamour' acquirers, who perform much worse than other glamour stocks and earn significant negative bias-adjusted abnormal returns of 17% in mergers. According to Rau and Vermaelen (1998) the fact that glamour bidders in tender offers perform significantly worse than value bidders suggests that companies with low book-to-market ratios in general, tend to make relatively poor acquisition decisions.

Healy et al. (1997) examine the acquiring company's accounting performance after the takeover, rather than stock returns when the takeover was announced and provide evidence that friendly deals exhibit a statistically significant median industry-adjusted cash flow return of 4.2%, assuming no premium was paid to the target. In contrast, the hostile transactions have insignificant improvements in cash flow returns. These data

⁹ These percentages are weighted averages of the figures reported by Jensen and Ruback for successful and unsuccessful acquisitions. In tender offers, for example, Jensen and Ruback estimate an average target return of 29.09% for 653 successful tender offers and 35.17% for 283 unsuccessful tender offers. The weighted average of these figures is 30.92%. Similarly, the weighted average of 16.33% for merger target is a combination of the 15.9% earned by 457 successful mergers and 17.24% earned in 219 unsuccessful mergers. Their figures are not adjusted for any effects caused by overlapping samples.

suggest that friendly transactions generally create more takeover gains from acquirers than hostile transactions. Furthermore, the takeover premium is lower for friendly transactions, implying that acquirers have to pay less for target that leads to better performance. When they consider the actual target premium, friendly transactions show significant positive industry-adjusted cash flow returns of 2.6%, while hostile takeovers have no performance improvement. The takeover gains therefore, according to Healy et al. (1997), appear to be split across target and acquiring firms in friendly transactions.

Several other factors apart from the method of financing and the type of the takeover activity have also been assumed to influence wealth creation by corporate acquisitions. Most attention has been paid to the relatedness of the target and acquirer firms.

A diversifying merger occurs when a firm merges with another firm engaged in different activities or located in markets different from its own. Theoretically, diversifying firms, which include firms created through diversifying mergers, could create value by forming an effective internal capital market, thereby lowering the cost of capital. Under the very strong assumption of management's ability to determine the outcome of a project perfectly, Stein (1997) shows that diversification can lead to lower cost of capital for a firm. Management always picks the winners and funnels resources to the projects that pay for more than other projects. Diversified firms would have uncorrelated projects from which to choose and thereby create value in more states of the world than focused firms with highly correlated projects. Houston et al. (1997), for example, show that bank holding companies create internal capital markets in order to lower the cost of capital. Hubbard and Palia (1999) conduct empirical tests of the value of efficient internal capital markets. They find that when external capital markets are relatively undeveloped, as they were in the United States during the 1960s compared with the information-laden decades that followed, internal capital markets serve to overcome inefficient external markets. The greater the information asymmetries between managers and the external market, the more valuable the internal market. All bidders, even those engaged in diversifying mergers, generally earned positive abnormal returns during the 1960s. As informational

asymmetries dissipate, so too the value of diversifying mergers and therefore the rewards to the bidders of such mergers.

Lewellen (1971) argues that conglomerate firms can sustain higher levels of debt because corporate diversification reduces earnings variability. If the tax shields of debt increase firm value, this argument predicts that conglomerate firms are more valuable than companies operating in a single industry. Shleifer and Vishny (1992) have also argued that conglomerates may have a higher debt capacity because in bad states of the world they can sell assets in those industries that suffer the least from liquidity problems.

A second set of arguments explains diversification as an outgrowth of the agency problems between managers and shareholders. Amihud and Lev (1981) argue and provide empirical evidence that managers diversify to protect the value of their human capital, and Jensen (1986) suggests that companies diversify to increase the private benefits of managers. In a similar study, Shleifer and Vishny (1989) suggest that managers diversify because they are better at managing assets in other industries and diversifying into those industries will make their skills more indispensable to the firm.

Like diversification, focusing can have either a geographic or an activity dimension. Focusing mergers occur when the two partners engage in similar activities or are located in the same market. Focusing mergers could create value in several ways, including the replacement of less efficient with more effective managers (Jensen and Ruback, 1983), the increase of market power, the reduction of overinvestment (Amihud and Lev, 1981), or economies of scale. Focusing mergers consistently created positive abnormal returns for bidders, not only during the 1960s as Hubbard and Palia (1999) find, but also during the 1970s and 1980s (Comment and Jarrell,1995). Similarly, Morck et al. (1990) examine mergers between firms in related industries defining as partnering firms those that share a 4-digit Standard Industrial Classification (SIC) code or whose correlation coefficients are above the median for the sample. In their study, they discover that focusing mergers create positive abnormal returns for bidders, while diversifying mergers destroy value. The difference between diversifying and focusing mergers was more pronounced in the 1980s than in the 1970s. This finding adds further validity to the internal capital

market argument described above. In other words, as information becomes more readily available, the value of efficient internal capital markets falls.

Delong (2001), examining domestic U.S. mergers announced between 1988 and 1995 between publicly traded firms, where at least one is a banking firm provide evidence that bank mergers focusing on both geography and activity create value upon announcement, while those that diversify either geography or activities, or both, do not create value. Overall, mergers in the banking industry neither create nor destroy shareholder wealth, but mergers that focus both geography and activities earn a positive 3.0% return. In addition, they find that bidders in this group do not destroy value, while bidders in the other groups do destroy value. Targets that enter into focusing mergers do not earn significantly more or less than targets in the other groups. Thus, their findings not only substantiate those of Morck et al. (1990) for the banking industry, but also enhance them by showing that the loss of diversifying bidders is not the result of a wealth-transfer from bidder to target firms.

Doukas et al. (2002), using a sample of 93 Swedish bidding firms that acquired 101 target firms between 1980 and 1995, find that diversifying acquisitions lead to a negative market reaction and deterioration of the operating performance of the bidder. Announcement and performance gains in each of the three years following the acquisition occur only when bidders expand their core rather than their peripheral line of business. Their findings also suggest that focused acquisitions lead to greater synergies and operating efficiencies than diversified acquisitions. Intra-group acquisitions, however, show that bidders do not realise significant gains whether they adopt diversifying or focusing investment strategies. Intra-group targets at the same time realize significant gains regardless bidder's investment strategy.

Arguments suggesting that the drawbacks of diversification have become more prominent during the 1980s and 1990s are based on the notion that diversification was beneficial for shareholders when many firms started to diversify. But, with the exception of Matsusaka (1993), who finds positive bidder returns at the announcement of conglomerate acquisitions in the late 1960s and early 1970s, there is little evidence to indicate that this was the case. More precisely, Ravenscraft and Scherer (1987) document that conglomerate acquisitions during the 1960s were

unsuccessful because they displayed poor post-merger profitability and were more likely to be divested than related acquisitions. Wernerfelt and Montgomery (1988) find that focus contributes positively to a firm's Q ratio¹⁰ for 247 companies in 1976. Kaplan and Weisbacb (1992) also find that unrelated acquisitions are more likely to be divested than related acquisitions; however, they find little evidence to indicate that unrelated acquisitions were less successful than related acquisitions.

In order to examine whether the benefits of diversification outweigh the costs, Servaes (1996) follows a sample of firms from 1961 to 1976 (in three-year intervals). He finds no evidence that diversified firms are valued more than single segment firms in the 1960s and early 1970s. On the contrary, for several years diversified firms sell at a substantial discount when compared to single segments firms. This discount is large and significant over the 1961-1970 period, but it becomes small and insignificant in the period 1973-1976. These results hold after controlling for industry effects and for differences between diversified and undiversified firms in profitability, leverage, and investment policy. The largest increase in diversification takes place over the 1970-1976 period when the penalty imposed by capital markets is small. Thus, the firms that diversified at that time did not impose a cost on their shareholders.

Based on the above-mentioned recent empirical evidence it can be argued that companies are becoming more focused through mergers and acquisitions and that increasing focus leads to higher market valuations and stock returns, while the average diversified firms trade at a discount than a portfolio of comparable single-segment firms.

The liberalization of restrictions to international capital flows and the trend toward an integrated world economy have led to increased activity in the global market for corporate control. Several recent studies have also addressed the effects of cross-border acquisitions as another factor that may explain the returns to the shareholders of bidder and target firms. Fatemi and Furtado (1988) have pointed out that differing

¹⁰ A ratio devised by James Tobin from Yale University, who hypothesized that the combined market value of all companies on the stock market should be about equal to their replacement costs. The Q ratio is calculated as the market value of a firm's assets divided by the replacement value of the firm's assets.

wealth effects between national and cross-border mergers may be due to market segmentation in imperfectly competitive markets. This view has been also supported by Danbolt (1995) and McCann (2001), who conclude that the degree of capital market integration may have an impact on the emergence of abnormal returns to acquiring firms' shareholders, which differ from purely national merger activities.

Markides and Ittner (1994) hypothesize that international risk diversification could be a motive for cross-border mergers. They argue that, under certain market inefficiencies, investors could benefit from international corporate diversification through cross-border acquisitions. For example, information asymmetries may denote that a company is better informed than its investors, and thus able to make better investment decisions than its shareholders. Thus, it can be hypothesised that corporate international diversification has the potential of being beneficial to shareholders. If international diversification is an additional source of value to overseas bidders, and they are prepared to or are forced by target shareholders to pass part of that benefit to them, one would expect target shareholders to gain more in cross-border than in domestic acquisitions. However, if international capital markets are perfectly integrated, if information is cheaply available and if agents behave rationally, then no diversification gains can be generated from international merger activity. Thus, the existence of small or no wealth creation differences between national and international merger activities could be explained by a high degree of capital market integration.

International takeovers may be also motivated by a need to operate locally in order to avoid trade barriers. This appears to have been an important issue in the cross-border takeover activity in Europe following the passing of the Single European Act in 1985, with non-EU companies actively acquiring companies within the community before the introduction of the Single European Market in 1992 (Vasconcellos and Kish, 1998). Danbolt (2004) argues that if market access is valuable to foreign bidders, it may be anticipated that bidding companies without a foothold in any EU member country, will be willing to pay higher takeover premia than bidders previously operating in these markets.

Exchange rate fluctuations might also have an impact on the level of abnormal returns to target shareholders in cross-border acquisitions. Harris and Ravenscraft (1991), Swenson (1993) and Kang (1993) all find US target shareholders to gain more in cross-border acquisitions when the currency of the predator's home country is strong relative to the target company's currency. However, not all studies find support for the exchange rate effect. For example, Cebenoyan et al. (1992) and Dewenter (1995) do not find the strength of the currency to have a significant impact on the level of abnormal returns. The theoretical issue of whether exchange rates have an impact on the level of abnormal returns to target shareholders thus remains controversial, since the empirical evidence is still mixed.

As with domestic acquisitions, cross-border acquisitions may not only be driven by shareholder wealth maximisation objectives, but may also be a result of agency conflict, with bidding company management aiming to maximise their own utility. Through acquisitions, management may increase their power, status, and salary. In an analysis of domestic U.K. acquisitions, Firth (1991) finds acquiring company management to gain from mergers and acquisitions regardless of whether shareholders gain or lose as a result of the transactions. Bliss and Rosen (2001) obtain similar findings for bank mergers in the U.S. If managers are pursuing power and status through empire building, cross-border acquisitions may be more advantageous to managers than domestic transactions.

According to hubris hypothesis, as mentioned earlier, Roll (1986) argues that bidding companies tend to overestimate the value of economic benefits of the merger. The target company bid premium may thus be the result of valuation error. If overseas companies are more difficult to estimate the value of the target firm than the domestic firms due to either different accounting standards and valuation conventions, or the impact of exchange rate fluctuations on company value, the size of any valuation error and thus, the degree of any overpayment may be larger in cross-border than in domestic acquisitions.

Doukas and Travlos (1988) investigate the impact of international acquisitions on the stock prices of U.S. bidding firms. They find that shareholders of the U.S. bidders experience significant positive abnormal returns when firms expand into new industry.

and geographic markets. When firms already have operations in the target firm's country, however, U.S. shareholders experience insignificant negative abnormal returns. Harris and Ravenscraft (1991), on the other hand, study shareholder wealth gains for U.S. firms acquired by foreign firms. They conclude that U.S. targets experience higher wealth gains when they are acquired by foreign firms than when acquired by U.S. firms.

Morck and Yeung (1992) also investigate the effect of international acquisitions on the stock prices of U.S. firms. They show that U.S. acquiring firms with information based on intangible assets, experience a significantly positive stock price reaction upon announcing a foreign acquisition. This lends support to the findings of their earlier work, that the market value of the firm is positively related to its multinational structure due to the firm's intangible assets with public good properties (Morck and Yeung, 1991).

Eun (1996) examines 225 foreign acquisitions of U.S. firms that took place during the period 1979-90. They find that U.S. target shareholders realize significant wealth gains, regardless of the nationality of acquirers. In contrast, the wealth gains to foreign acquirer shareholders vary greatly across the countries of acquirers. Shareholders of British acquirers experience significant wealth reduction, whereas Japanese shareholders experience major wealth increases. Canadian acquisitions of U.S. firms produce modest wealth increases for their shareholders. In addition, they provide evidence that foreign acquisitions of U.S. firms generally are found to be synergy generating corporate activities.

Concerning international acquisitions of European corporations, Bühner (1992) examines the announcement effects to bidders in the German capital market. While he observes a negative stock price reaction during the first months after the merger announcement, there is a significant positive cumulative abnormal return after 24 months. However, from a short-term perspective, there is no evidence of significant announcement effects for cross-border mergers in Germany (Gerke et al., 1995). Corhay and Rad (2000) come to similar conclusions for cross-border acquisitions of Dutch firms. In contrast to these results, Goergen and Renneboog (2004) find

significant positive bidder announcement returns for a sample of European domestic and cross-border acquisitions.

In an analysis of cross-border acquisitions into the UK, Danbolt (1995) finds overseas bidding companies to suffer negative abnormal returns, indicating that overseas bidders pay too high a price for their UK targets. Indeed, the post-bid performance of cross-border bidders appears to be significantly worse than the performance of domestic UK bidders. This suggests that any target company cross-border effect may be due to managerial overconfidence or managers of cross-border bidders pursuing the maximization of personal utility, rather than the maximization of shareholder wealth, to a greater extent than do domestic bidders.

Conn and Connell (1990) and Feils (1993), analysing the abnormal returns in cross-border mergers between U.S. and U.K. companies, find the gains to UK targets to be only about half as large as those observed for U.S. targets. However, neither Conn and Connell nor Feils analyze U.K. target companies in domestic acquisitions, and are thus unable to comment upon the nature of any target company cross-border effect in the U.K.

To sum up, whether cross-border merger and acquisitions actually create the performance gains expected has been the core of some recent empirical studies. While there is support for the hypothesis that target firms experience significantly higher wealth gains in comparison to purely domestic acquisitions when they are acquired by foreign bidders (Harris and Ravenscraft, 1991; Swenson, 1993; Danbolt 2004), the effects on bidder values from international acquisitions remain unclear. Doukas (1995) reports small positive abnormal returns to acquirers in a sample of 463 cross-border acquisitions by US corporations between 1975 and 1989, but different samples that also incorporate non-US international mergers do not support those findings. Eckbo and Thorburn (2000), for example, study a large sample of 1,846 acquisitions of Canadian corporations by domestic and US-based bidding firms. They detect positive abnormal returns for domestic bidders, but no abnormal returns for US-based acquirers.

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Part 3 - Data and Methodology

3.1 Methodology

Event study methodology is typically used in order to assess the effect of an economic event on the value of the firm, like mergers and acquisitions, earning or dividend announcements, issues of new debt or equity, and announcements of macroeconomic variables such as the trade deficit, based on financial market data. The usefulness of such a study comes from the fact that, given rationality in the marketplace, the effects of an event will be reflected immediately in security prices. Thus, a measure of the event's economic impact can be constructed using security prices observed over a relatively short time period. In contrast, direct productivity related measures may require many months or even years of observation.

As summarized by MacKinlay (1997), event study approach has been widely used since 1933 when it was first applied by Dolley (1933) in his work on the price effects of the stock splits based on the analysis of nominal price changes at the time of the split. Modern event study methodology was proposed by the works of Ball and Brown (1968) and Fama et al. (1969). The former considers the information content of earnings, while the later examines the effect of stock splits after removing the effects of simultaneous dividend increases. In the years since these pioneering studies, a number of modifications have been developed. Useful papers are those of Brown and Warner (1980, 1985) who consider implementation issues related to an event study for monthly and daily data, respectively.

Common procedure for application of an event study includes several steps. The initial task of conducting an event study is to define the event of interest and identify the period over which the security prices of the firms involved in this event will be examined-the event window. As it is clearly stated from the introduction, this study is focused on the merger and acquisition announcements of Greek firms listed on the Athens Stock Exchange (ASE). The event window is normally chosen to include at least several days before and after the event date as market's response is sometimes slow. Most commonly 41 day window period is used including 20 days before and after the event date and the same will be used for the current analysis. It is evident

from the above that an important issue in an event study is the choice of the event date. One possibility is the first public date of the merger. If information leaks occur before this date, abnormal returns generated by the merger would be observed before the event date. At the announcement date, the security price of the merging firms will adjust to reflect the probability of success of the offer, the profitability of the merger and the time required for the merger to be completed. For time periods after the announcement date, there may still be significant abnormal returns, especially if the sample reflects only successful mergers, as uncertainty concerning the ultimate success and profitability of the merger is resolved. Also, the terms of the merger may be revised as new information becomes available. Alternatively, the event date is defined as the actual merger date at which all uncertainty has been resolved. However, using time periods prior to the actual merger date to measure abnormal return can generate a sequence of abnormal returns which reflects the resolution of uncertainty concerning the merger and not the underlying economic impact of the merger. In fact, it is difficult to identify whether gains prior to the actual merger date are due to the event or just to a persistently good performance prior to the merger. For this reason, this study considers the first public date as the event date.

Second, an estimation window is defined and may vary from 360 to 120 days before the beginning of the event window. It is of particular importance that the estimation and event windows not to overlap so that the effect on the price could be clearly estimated (MacKinlay, 1997).

Next, it is necessary to determine the selection criteria for the inclusion of a given firm in the study. Such criteria may include firm's market capitalization, industry representation or time distribution of events. The last criterion has particular importance to the analysis of mergers and acquisitions activity as normally companies with frequent takeover transactions per year are sorted out of the analysis since it is difficult to detect and estimate the net effect of every single transaction on stock price movement.

Appraisal of the event's impact requires a measure of the abnormal return. The abnormal return is the actual ex post return of the security over the event window minus the normal return of the firm over the event window. The normal return is

defined as the expected return conditional to the event taking place. For firm j and event date t the abnormal return is

$$AR_{it} = R_{it} - E(R_{it}|X_t)$$

where

 AR_{jt} = abnormal return of firm j, on day t;

 R_{it} = rate of return on firm j, on day t;

 $E(R_{jt}|X_t)$ = expected return of firm j, on day t given the conditional information.

For each of the sample securities daily rates of return are calculated as:

$$R_{jt} = ln(P_{jt} + D_{jt}) - ln(P_{jt-1})$$

where

 P_{jt} = the closing price for security j on day t;

 D_{jt} = cash dividend on the ex dividend on day t;

 P_{jt-1} = the closing price for security j on day t-1.

Abnormal returns are derived using the market model¹¹. This model assumes a stable linear relationship between the market return and the security's return as well as joint normality of assets returns:

$$\begin{split} R_{jt} &= \alpha_j + \beta_j R_{mt} + \epsilon_{jt}, \qquad j = 1, 2, \dots, N \\ & E(\epsilon_{jt}) = 0 \text{ and } var(\epsilon_{jt}) = \sigma^2_{jt} \end{split}$$

where

 α_j , β_j = the intercept and slope respectively of the linear relationship between the returns of stock j and the returns of the general index;

 R_{it} = the return of stock j on day t;

 R_{mt} = the return of the General Index of Athens Stock Exchange;

 ε_{it} = the unsystematic component of firm j's return.

The estimated abnormal return is given by:

$$\hat{\varepsilon}_{jt} = R_{jt} - (\hat{a}_j + \hat{\beta}_j R_{mt})$$

¹¹ Brown and Warner (1980, p.249) argue that "beyond a simple, one factor market model, there is no evidence that more complicated methodologies convey any benefit. In fact...more complicated methodologies can actually male the researcher worse off, both compared to the market model and the even simpler methods, like mean-adjusted returns, which make no explicit risk adjustment.

where \hat{a}_j and $\hat{\beta}_j$ are the ordinary least squares estimates¹² of α_j and β_j ¹³.

According to the statistical assumptions of the market model, the abnormal returns have to be jointly normally distributed with zero conditional mean and conditional variance $\sigma^2(AR_{jt})$ that is unknown and proxied by the variance obtained from the market model. Under the null hypothesis, H_0 , that the event has no impact on the behavior of returns (mean or variance) the distributional properties of the abnormal returns can be used to draw inferences over any period within the event window. Under H_0 the distribution of the sample abnormal returns of a given observation in the event window is, thus:

$$AR_{jt} \sim N(0, \sigma^2(AR_{jt}))$$

In order to draw conclusions about the event's effect on stock returns, the abnormal returns need to be aggregated across companies and across time. The average abnormal return is defined as

$$\overline{AR}_{t} = \frac{1}{N} \cdot \sum_{i=1}^{N} AR_{jt}, \quad t = -20,...,20$$

where

 \overline{AR}_{t} = the average abnormal return;

N = the number of analyzed firms in the sample;

t = point of time to analyze.

The average cumulative abnormal returns for any interval (t_1,t_2) during the event window, defined as the sum of previous daily average abnormal returns, are also calculated as:

$$\overline{CAR}(t_1,t_2) = \sum_{(t|t,2)} \overline{AR}_{t} = \sum_{(t|t,2)} \frac{1}{N} \cdot \sum_{j=1}^{N} AR_{jt}, \quad t = -20,....,20$$

¹² Brown and Warnen (1980, p. 7) also mention that "procedures other than OLS for estimating the market model in the presence of non-synchronous trading convey no clear-cut benefit in detecting abnormal return

¹³ The estimation of beta has been the subject of a number of studies. Techniques are available to adjust for measurement error (Klemkosky and Martin, 1975) and non-synchronous trading (Scholes and Williams, 19977). However, recent empirical evidence has shown that the abnormal returns estimates appear to be insensitive to these adjustments.

where

 \overline{CAR} (t₁,t₂) = the average cumulative abnormal return; N = the number of analyzed firms in the sample; t = point of time to analyze.

To test the null hypothesis of no impact of an event on stock return, the statistical significance of the aggregated \overline{AR}_t (or AAR_t) and $\overline{CAR}(t_1,t_2)$ or (ACAR_t) is assessed according to Brown and Warner (1980). More specifically, the test statistic is the ratio of the day t average abnormal return to its estimated standard deviation:

$$t(\overline{AR}_t) = \overline{AR}_t \cdot \frac{\sqrt{N}}{\widehat{S}(AARt)}$$

3.2 Descriptive Data

This study is based on mergers and acquisitions that were undertaken by Greek companies listed on Athens Stock Exchange and were announced during the period from January 1997 to December 2005. These transactions were identified from daily financial press and more precisely from Naftemporiki, based on corporate announcements made to Athens Stock Exchange. The information regarding the announcement dates of the merger or acquisition activity, and the existence of any other events during the period of investigation were also retrieved from Naftemporiki. The announcement date of the takeover activity is the initial date of the first public announcement.

In order for a transaction to be included in the sample the following selection criteria must be satisfied:

At least one counterparty of the transaction must be listed on the Athens Stock
 Exchange and must have daily stock return data for the period under investigation.

- The public-listed firm must have stock price history for at least 120 days before the takeover activity and 20 days after. This criterion selects companies that have existed in the market long enough before the takeover deal announcement and ensures feasibility of estimating the returns of a given stock for the prior period.
- The public-listed firm has not to be engaged in any other merger or acquisition activity within the event window period. Absence of other events that could create additional noise in the stock price is crucial for estimating the returns of the company and detecting any abnormal return associated with the merger or acquisition announcement under consideration.
- The transaction should be completed. This criterion is conventional in studies examining merger and acquisition events. It focuses the analysis on deals that actually happened and produces credible market signal.

In total, 318 transactions satisfied these criteria. Tables 1 and 2 of Appendix 2 summarize the final samples of the target and bidder firms along with the announcement dates. The final sample consists of 19 mergers and 299 acquisitions. The total number of transactions can be subdivided into domestic and cross-border deals. The distinction between domestic and cross-border deals is based on the nationality of the firms involved (i.e where they or their mother companies have their registered office). Consequently, a merger is classified as domestic or national when both the target and the bidder firms' registered offices are located in the same country; otherwise, the takeover is characterized as cross-border. Tables 3, 4, 5 and 6 of Appendix 2 summarize the samples of target and bidder firm based on whether the transaction is classified as domestic or cross-border. Furthermore, 38% of the transactions are classified as diversified while the reaming 62 % is characterized as focused. A takeover activity is classified as diversified when the target and the bidder firms operate in different industries while the transaction is characterized as nondiversified when the core activities of both firms are focused in the same industry. Tables 7, 8, 9 and 10 of Appendix 2 summarize the samples of target and bidder firm based on diversification. At the time this study was performed and due to time restrictions, no data and information were available about the type of the takeover activity and the method of financing, thus remaining as an open issue for future research.

The daily stock price and dividend data of the sample firms were retrieved from DataStream for 141 trading days surrounding the announcement date, with 120 trading days occurring before and 21 trading days on and after the announcement date.

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Part 4 - Empirical Results

4.1 Target versus Bidder firms

The daily average residuals plotted in figure 1 and reported in table 1 of Appendix 3 measure the abnormal return to stockholders of 116 target firms in each of 41 days relative to the announcement of the takeover activity. The returns are abnormal in the sense that they represent the average deviation of the daily returns on these securities from their normal relationships with the market as depicted by the market model in section 3.1. Similarly, the average cumulative residuals in figure 2 of Appendix 3 can be interpreted as an index of the total abnormal price changes from 20 days prior to the takeover activity. The cumulative average residuals are the sums of the daily average residuals from the day – 20 (i.e 20 days before the event date).

Based on table 1 of Appendix 3, shareholders of the target firms start earning statistically significant excess returns as early as two weeks before the merger event date, on days -14 and -16. More precisely, the average abnormal returns 16 and 14 days before the announcement day is 0.92% and 0.90%, respectively. Three days before the announcement day, the abnormal returns are also positive at 0.96% and statistically different from zero. The abnormal returns on days -2 and -1 are 0.57% and 0.82% respectively, but they are statistically non significant. However on the day of the announcement, a significant and relatively large abnormal return of 4.42% to target shareholders is found. The results also indicate a significant positive average abnormal return of 1.19% two days after the announcement date.

As shown in table 2 and figure 2 of Appendix 3, the average cumulative abnormal returns support the hypothesis that the shareholders of target firms gain significant and positive abnormal returns. More precisely, the cumulative abnormal returns range from 4% to 8.74%. More precisely, the cumulative abnormal return for target companies within two days holding period (CAR 0, 2) is 6.31% and increases to 8.74% for ten days holding period (CAR -5, 5) beginning five days before the announcement day, both statistically significant at 1% significance level. The ten days holding period starting from the event day (CAR 0, 10) produces 4% cumulative

abnormal return at 5% significance level. In addition, cumulative abnormal returns for a three-week period become 3.09%, statistically insignificant. However, cumulative abnormal returns never become negative for target company shareholders. Interestingly, according to figure 2, the cumulative abnormal returns start deviating from zero long before the event date, about 15 trading days, period of about three weeks. This peculiarity may reflect information leakage of individual companies' short-term plans or market anticipation of the transaction. Consequently, it can be argued that the market is not efficient as investors may gain abnormal returns if they predict the announcement of a takeover transaction correctly.

The results for the complete sample of mergers are consistent with those generally found in the event study literature analyzing market-based returns to target firms' shareholders around the announcement date. The estimated cumulative abnormal are somewhat lower than the average reported in the academic literature during the 1980s (Jensen and Ruback, 1983) and more in line with more recent studies reported in the previous section, suggesting that returns might have been declining over time.¹⁴

Table 3 of Appendix 3 presents the average abnormal returns to the shareholders of 248 acquiring firms included in the total sample, while figure 3 of Appendix 3 illustrates a graphical representation of the sample abnormal returns. Contrary to a number of academic studies that identify negative abnormal returns to the shareholders of the acquiring firms, the evidence of this study support the hypothesis of positive abnormal returns accruing to the shareholders of the bidder firms. More precisely, abnormal returns start to be significant two days before the announcement reaching at 0.35%. On the announcement day, the shareholders of the acquiring firms experience 1.09% positive excess return, statistically significant at 1% level. In addition, the gains of the bidder firms continue to grow the day after the announcement, reaching at 0.53% excess return, which is also statistically significant at 1% level. The second and the third day after the takeover announcement shareholder returns become negative, -0.21% and -0.27% respectively but statistically insignificant. Negative returns become significant only four days after the announcement date.

Bruner (2002) also reports some evidence and argues that cumulative abnormal returns might have been declining over time.

As shown in table 4 and figure 4 of Appendix 3 the cumulative abnormal returns also justify the hypothesis that small but significant positive abnormal returns accrue to acquirer shareholders in the first week as indicated by the studies of Maquieira et al. (1998), Mulherin (2000), Kohers and Kohers (2000) and Doukas et al. (2002). The shareholders of the acquiring firms earn a total of 2.01% excess return within the period two days before and two days after the takeover announcement (CAR -2, +2), statistically significant at 1%, while for the period five days before and after the announcement (CAR -5, +5) the cumulative returns are 1.26%, also statistically significant at 1% level. However, after the first week the cumulative abnormal returns become negative. These abnormal returns are statistically significant only at 10% significance level at the end of the second week while they become negative and statistically significant at 5% significance level at the three-week period reaching at 1.60%.

The findings of the current study are also consistent with those of a similar study performed by Protopapas et al. (2003) where they examine the stock price reaction to merger and acquisitions on the announcement day by firms listed on Athens Stock Exchange during the period 1988-1997. They find that the cumulative abnormal returns of the shareholders of the acquiring firms five days before the announcement day (CAR -5, 0) is 1.99%, statistically significant at 1% significance level. These findings can be explained by the fact that the market for corporate control in Greece is relative small and less competitive as compared to those of other developed countries like the U.S. or the U.K. Doukas and Travlos (1988) argue that from an international perspective, the benefits from international acquisitions stem from the firm's ability to exploit uniquely international distortions in capital markets, implying that these benefits will be greater the less integrated the markets of the counterparties are. Since the degree of integration depends on their relative economic development, the benefits should be greater when firms expand into less developed areas.

4.2 Domestic versus Cross-Border Mergers and Acquisitions

As a first step to ascertain to what extent the profitability of merger and acquisition activity differs depending on the national versus cross-border nature of the transactions, this section presents some descriptive statistics on the cumulative abnormal returns enjoyed by the shareholders of the merging firms, distinguishing between national and cross-border transactions. The evidence presented in table 5 of Appendix 3 shows that the sign of the difference in average cumulative abnormal returns between national and cross-border deals diverges between targets and acquirers.

In the case of target firms, average cumulative abnormal returns are found to be larger in cross-border deals. More precisely, the shareholders of target firms involved in cross-border deals earn a total of 9.22%, 6.17% and 6.09% excess return for the period (-20,+20), (-20,-1), (-1,+1) respectively, while the shareholders of target firms involved in domestic transactions earn a total of 8.02%, 4.90% and 5.80% for the same periods. The cumulative abnormal returns are statistically significant at 1% significance level in all cases. The difference in cumulative abnormal returns between domestic and cross-border mergers for target firms ranges from 0.3% to 1.2% approximately, but it is never statistically significant. Conversely, in the case of acquiring firms, average cumulative abnormal returns are larger in domestic mergers. More precisely, the returns to the shareholders of bidder firms involved in domestic mergers are 1,11%, 2.14% and 2.11% for the periods (-20,+20), (-20,-1), (-1,+1), while the returns to the shareholders of acquiring firms involved in cross-border transactions are -0.78%, 1.62% and 1.59% respectively. However, in none of these cases the cumulative abnormal returns are statistically significant. The difference in cumulative abnormal returns in the case of acquiring firms varies between approximately 0.5% and 1.9 %, but is never significant.

The evidence based on the differences in the cumulative abnormal returns between domestic and cross-border deals as presented in table 5 of Appendix 3 is not conclusive. If anything, it seems to suggest that shareholders of acquiring firms obtain lower benefits in cross-border deals than in national transactions. In other words, it

can be argued that acquiring firms are to some extent penalized for engaging in a cross-border merger.

4.3 Focused versus Diversified Mergers and Acquisitions

In this section the market reaction to merger and acquisition announcements in Greece over the 1997-2005 period is examined in order to draw inferences about the effects of diversification on firms' value.

Following Doukas et al. (2002), the analysis is based on a twenty-one day window interval around announcement of the acquisition (days -10 to +10), to capture preannouncement leakage effects as well as post-announcement corrections. These results are listed on table 6 of Appendix 3 for target and bidder firms respectively. The cumulative abnormal return to the bidder firms involved in focused mergers and acquisitions on the withholding period is 1.26% and statistically significant at 1% level. Over the same trading interval, the abnormal return for the bidder firms involved in diversified transaction is -0.5% and marginally significant. The difference in cumulative abnormal returns between the shareholders of bidder firms involved in diversified and focused transaction is 1.76% and statistically different from zero at 1% significance level. These results suggest that the shareholders of firms that buy target companies related to their core business (non-diversifying) realize 1.26% gain, while the shareholders of firms that buy targets unrelated to their core business realize -0,5% negative returns. Similarly, the cumulative abnormal return to the nondiversifying target firms on the same trading interval is 7.76 % and statistically significant while the abnormal return for the diversifying target firms is 7.29% and statistically insignificant. The means difference is 0.47% and statistically significant at 5% level.

Consistent with Delong (2001) and Doukas et al. (2002), the findings of the current study provide support of the diversification discount literature suggesting that diversification adversely affects shareholder wealth. More precisely, the findings suggest that diversifying acquisitions lead to a negative market reaction and a possible deterioration of the operating performance of both the target and the bidder firm.



C.

Part 5 – Conclusion

Within the context of globalization, deregulation, intensification of competitiveness, relaxation of anti-trust legislation and European Union integration, mergers and acquisitions have become the dominant mode of firm's growth in the last decades for both European and U.S. firms.

Questions concerning the impact of mergers and acquisitions on the market value of merging firms have occupied a prominent position in the literature of economics and finance for at least twenty-five years. However, while there is substantial empirical evidence that shareholders of target firms, on average, realize large capital gains from corporate takeovers, the evidence on the profitability of takeovers for the shareholders of the bidder firms is contradicting and less conclusive. Studies measuring abnormal stock price behavior around takeover events report average bidder firm's performance that range from significantly positive in all-cash tender offers to significantly negative in all-stock exchange mergers.

Moreover, while the bulk of the academic literature has concentrated on large and mature capital markets like these of the U.S., the UK or Western Europe, there is no empirical evidence about the impact of takeover activity on the stock returns of firms for smaller and less mature capital market like that of Greece. The aim of this study was to critically evaluate the result of previous academic research on the impact of mergers and acquisitions on shareholder value creation as well as to provide empirical evidence about the impact of takeover activity on shareholder value of both merging firms by examining the stock price reaction of Greek firms listed on the Athens Stock Exchange (ASE) on merger and acquisitions announcements for the period from 1997 to 2005.

The results contained in this study are consistent with the hypothesis that mergers and acquisitions in Greece seem to positively affect the value of both merging firms, with gains accruing to both the shareholders of the target and the acquiring firm. More precisely, the findings of this study, consistent with the majority of academic literature, indicate that shareholders of target firms realize a gain up to 8.74% for a period five days before and five days after the announcement of takeover activity.

Surprisingly, there is evidence that shareholders of acquiring firms also gain from mergers and acquisitions realizing small but significant cumulative abnormal returns up to 2.01% for a period two days before and after the event date. These findings can be explained by the fact that the market for corporate control in Greece is relative small and less competitive as compared to those of other developed countries. Having said that, it can be argued that a non-competitive market for corporate control may give the privilege to bidder firms to acquire companies, offering a small percentage of the total gain provided by the acquisition. In other words, the acquiring firms withholds a larger part of the total gains from a merger or an acquisition resulting in larger abnormal returns accruing to them as compared to those that may be realized in a competitive market of corporate control.

Taken together, there is support for the proposition that the announcement of a merger or an acquisition has a significant and positive impact of the entities involved. These results may be of particular importance to shareholders, potential investors and managers of Greek firms. Shareholders have a vested interest in the market's evaluation of important decisions like those of potential mergers or acquisitions since these decisions affect the company's future competitive position and value. Management may obtain useful information from the market that will serve as feedback for past executive decisions as well as will provide the guidelines for subsequent ones. Knowledge of whether the announcement and implementation of such important strategic moves creates or destroys wealth will underpin future course of action, not only related with the issue of efficacy of such strategies, but also with the method and timing of announcement and implementation.

In an effort to assess the factors that may explain the merger and acquisition activity in Greece, it is also shown that the shareholders of both target and bidder firms that are involved in non-diversifying mergers or acquisitions realize significant positive gains. On the contrary, diversifying mergers produce negative abnormal returns to the shareholders of target firms and positive but statistically insignificant abnormal returns to the shareholders of acquiring firms, suggesting that companies are becoming more focused as long as increasing focus leads to higher market valuation and stock returns. These evidences, while they are consist with the diversification discount hypothesis, may also suggest that the market's negative reactions

diversifying acquisition announcements in Greece is likely to be driven by its perception of whether the bidder has overpaid the target firm rather than by the costs of diversification. However, the validity of this argument requires substantial additional empirical research.

The evidence about the impact of domestic versus cross-border transactions on the value of the merging firms is less conclusive. The differences in the cumulative abnormal returns between domestic and cross-border deals indicate that the shareholders of acquiring firms obtain lower benefits in cross-border deals than in national transactions suggesting that acquiring firms are to some extent penalized for engaging in a cross-border merger, while the shareholders of target firms realize larger gains in cross-border rather than domestic transactions. A first potential explanation for this outcome is that the market perceives that the acquirer is paying too much. Nevertheless, this explanation is far from convincing because although merger premia paid to target shareholders are larger in cross-border than in national deals, the difference is never significant. This lack of significance is not surprising because acquirers need to make on average a sufficiently attractive offer for the existing shareholders to transfer their ownership. An alternative rationale for the lower cumulative abnormal returns to bidders found in cross-border transactions is that the expected value of the proposed cross-border transaction is low suggesting that the bidders in cross-border mergers might face obstacles of different nature that offset their advantages when entering new markets.

Recent academic literature as examined throughout this study suggest that the method of financing as well as the type of the takeover activity, among others, may also have an impact on the effect of mergers and acquisitions on the shareholder wealth of both the target and the acquiring firms. However, time restrictions have impeded the selection of related data in order to asses the impact of these factors on merger and acquisition activity in Greece, and this may be considered as one of the limitations of this study and at the same time as an issue for future research. It will be also useful for future research to empirically examine what causes such wealth gains and what are the motives of the mergers and acquisitions taken place in Greece.

Last but not least, it can be argued that even though the Greek stock market perceives such strategic moves as value-adding activities it could be wrong in its assessment at least in the short-term horizon. Additional insight may be gained on the true value that these strategic decisions can create if the long-term performance of the firms involved is considered. Although it is accepted in the finance literature that the stock market efficiently monitors managerial actions by favorably valuing those with positive long-term investment value and vice versa, intended strategies may not be realized. Consequently, it will be of particular interest for future research to further consider the relationship between short-term shareholders' reaction and long-term outcomes of Greek mergers and acquisitions.

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TABLE 1 Returns to Target Firms Shareholders

| Study | Cumulative Abnormal Returns (%) | Sample Size | Sample Period | Event Window (days) |
|--------------------------------|---------------------------------|-------------|---------------|---------------------|
| Maquieira et al. (1998) | 41.65% conglomerate deals | 47 | 1963-1996 | (-60,60) |
| , | 38.08% non-conglomerate deals | 55 | | |
| Mulherin and Boone (2000) | 21.2% | 376 | 1990-1999 | (-1,1) |
| DeLong (2001) | 16.61% | 280 | 1988-1995 | (-10,1) |
| Houston et al. (2001) | 15.58% | 27 | 1985-1990 | (-4,1) |
| | 24.60% | 37 | 1991-1996 | |
| | 20.80% | 64 | 1985-1996 | |
| | 13.62% | 335 | 1990-1998 | (-1,1) |
| Danbolt (2004) | -9.44% | 474 | 1986-1991 | (-8,-3) months |
| Danison (2001) | 2.41% | | | (-2,-1)months |
| | 17.82% | | | (0,1) months |
| | 20.23% | | | (-2,1) months |
| | -2.39% | | | (1,5) months |
| | 9.04% | | | (-8,5) months |
| | -7.60% | 106 | | (-8,3) months |
| | 9.06% | 100 | | (-2,-1) months |
| | 21.97% | | | (0,1) months |
| | 31.03% | | | (-2,1) months |
| | 1.30% | | | (1,5) months |
| | | | | (-8,5) months |
| | 22.44% | | | · · · · |
| Beitel et al. (2004) | 14.16% | 98 | 1985-2000 | (-20,0) |
| | 12.31% | | | (-10,0) |
| | 11.23% | | | (-5,0) |
| | 11.38% | | | (-2,0) |
| | 10.48% | | | (-1,0) |
| | 8.27% | | | 0 |
| | 12.39% | | | (-1,1) |
| | 13.54% | | | (-2,2) |
| | 13.35% | | | (-5,5) |
| | 14.39% | | | (-10,10) |
| | 16% | | | (-20,20) |
| Goergen and Renneboog (2004) | 9.01% | 129 | 1993-2000 | (-1,0) |
| cooligoriana nomicolog (200 i) | 12.96% | | | (-2,2) |
| | 15.92% | | | (-5,5) |
| | 23.43% | | | (-30,30) |
| | 21.78% | | | (-60,60) |
| | 21.59% | | | (-90,90) |
| Karceski et al. (2005) | 8.48% | 39 | 1983-1996 | (-7,0) |
| Naiceski et al. (2003) | -1.52% | | | (1,7) |
| Schwert (1996) | 23.4% | 1814 | 1975-1991 | (-42,126) |
| Schwert (2000) | 20% | 2296 | 1975-1996 | (-63,126) |



TABLE 2
Returns to Acquiring Firms Shareholders
Studies Reporting negative Returns

| Study | Cumulative Abnormal Returns (%) | Sample Size | Sample Period | Event Window (days) |
|-----------------------------------|---------------------------------|-------------|---------------|---------------------|
| Mulherin and Boone (2000) | -0.37% | 281 | 1990-1999 | (-1,1) |
| Mitchell and Stafford (2000) | -0,14% | 366 | 1961-1993 | (-1,0) |
| | -0.07% | | | |
| Walker (2000) | -0.84% | 278 | 1980-1996 | (-2,2) |
| | -0.77% | | | |
| Delong (2001) | -1.68% | 280 | 1988-1995 | (-10,1) |
| Houston et al. (2001) | -4.64% | 27 | 1985-1990 | (-4,1) |
| | -2.61% | 37 | 1991-1996 | |
| | -3.47% | 64 | 1985-1996 | |
| Goergen and Renneboog (2004) | 0,7% | 139 | 1993-2000 | (-1,0) |
| | 1.18% | | | (-2,2) |
| | 0.39% | | | (-30,30) |
| | -0.48% | | | (-60,60) |
| | 0.41% | | | (-90,90) |
| Beitel et al. (2004) | -0.14% | 98 | 1985-2000 | 0 |
| · | -0.01% | | | (-1,1) |
| Doukas et al. (2002) ¹ | -0.20% | 101 | 1980-1995 | (-20,20) |
| | -2.37% | | | (-5,5) |
| | -1.12% | | | (-5,1) |
| | -0.52% | | | (-1,1) |
| | 0.62% | | | (-1,0) |
| | -0.91% | | | (0,1) |

¹ These results refer to diversifying mergers and acquisitions



TABLE 3
Returns to Acquiring Firms Shareholders
Studies Reporting Zero or Positive Returns

| Study | Cumulative Abnormal Returns (%) | Sample Size | Sample Period | Event Window (days) |
|--------------------------|--|-------------|---------------|---------------------|
| Maquieira et al. (1998) | 6.14% non-conglomerate deals -4.79% conglomerate deals | 55 | 1963-1996 | (-60,60) |
| Kohers and Kohers (2000) | 1.37% cash deals | 961 | 1987-1996 | -0.1 |
| | 1.09% stock delas | 673 | | |
| | 1.26% whole sample | 1634 | | |
| Beitel et al. (2004) | 0.42% | 98 | 1985-2000 | (-20,0) |
| , | 0.14% | | | (-10,0) |
| | 0.38% | | | (-5,0) |
| | 0.07% | | | (-2,0) |
| | 0.06% | | | (-1,0) |
| | 0.18% | | | (-2,2) |
| | 0.46% | | | (-5,5) |
| | 0.24% | | | (-10,10) |
| Doukas et al. (2002) | 2.74% | 101 | 1980-1995 | (-5,5) |
| , | 1.38% | | | (-5,1) |
| | 1.19% | | | (-1,1) |
| | 0.83% | | | (-1,0) |
| | 0.95% | | | (0,1) |

¹ These results refer to focused mergers and acquisitions



TABLE 4
Combined Returns to Target and Acquiring Firms
Studies Reporting Total Value Creation from Mergers and Acquisitions

| Study | Cumulative Abnormal Returns (%) | Sample Size | Sample Period | Event Window (days) |
|---------------------------|---------------------------------|-------------|---------------|---------------------|
| Mulherin and Boone (2000) | 3.56% | 281 | 1990-1991 | (-1,1) |
| Houston et al. (2001) | 0.14% | 27 | 1985-1990 | (-4,1) |
| | 3.11% | 37 | 1991-1996 | |
| | 1.86% | 64 | 1985-1996 | |
| Beitel et al. (2004) | 2.01% | 98 | 1985-2000 | (-20,0) |
| | 1.46% | | | (-10,0) |
| | 1.43% | | | (-5,0) |
| | 1.38% | | | (-2,0) |
| | 1.20% | | | (-1,0) |
| | 0.91% | | | 0 |
| | 1.40% | | | (-1,1) |
| | 1.70% | | | (-2,2) |
| | 1.45% | | | (-5,5) |
| | 1.35% | | | (-10,10) |
| | 1.29% | | | (-20,20) |
| Campa and Hernando (2004) | 0.95% | 262 | 1998-2000 | (-30,30) |
| Campa and Homando (2004) | 1.16% | 202 | | (-30,-1) |
| | 3.57% | | | (-90,-1) |
| | 1.04% | | | (-1,1) |
| Aktas et al (2001) | 0.05% | 37 | 1995-1999 | (-5,0) |
| | 0.45% | | | (-4,0) |
| | 0.42% | | | (-3,0) |
| | 0.37% | | | (-2,0) |
| | 2.07% | | | (-1,0) |
| | 3.2% | | | 0 |
| | 4.41% | | | (0,1) |
| | 5.89% | | | (0,2) |
| | 5.52% | | | (0,3) |
| | 5.65% | | | (0,4) |
| | 5.73% | | | (0,5) |
| | -0.61% | 43 | | (-5,0) |
| | -0.96% | | | (-3,0) |
| | -1.10% | | | (-2,0) |
| | -1.56% | | | (-1,0) |
| | -2.63% | | | 0 |
| | -3.59% | | | (0,1) |
| | -4.38% | | | (0,2) (0,3) |
| | -4.04% | | | (0,3) |
| | -4.29% | | | (0,4) |
| | -4.16% | | | (0,5) |



TABLE 1
Total Sample of Target Firms

| Target Firms | Announcement Date | Target firms | Announcement Date |
|-----------------------------------|-------------------|---|-------------------|
| DELTA INFORMATICS | 08/09/00 | LANNET | 29/12/04 |
| UNIFON | 25/10/00 | DOMUS AEEX | 14/01/05 |
| ERGODATA S.A. | 10/01/01 | MOURIADHS | 18/01/05 |
| VOLOS TECHNICAL COMPANY | 26/03/01 | LAMPSA | 19/01/05 |
| C.A.P. COSMETICS | 30/03/01 | X. MPENROUMPH & SONS | 24/01/05 |
| ENDYSSI S.A. | 30/03/01 | DELTA PROTIPOS MILK COMPANY | 15/02/05 |
| LABROPOULOS BROS. | 30/03/01 | MINOAN LINES | 22/02/05 |
| SPORTSMAN | 30/03/01 | SOLLINOURGIA KORINTHOU | 03/03/05 |
| | 12/04/01 | HELLENIC TECHNODOMIKI | 09/03/05 |
| INTRASOFT | 19/04/01 | ALLUMINIUM OF GREECE | 10/03/05 |
| ATHENS MEDICAL CLINIC OF FALIRO | | | 16/03/05 |
| NEXTNET S.A. | 09/08/01 | MOURIADHS MPARMPA STHATHIS GENERAL FOOD COMPANY | 04/04/05 |
| KLAOUDATOS G. | 16/11/01 | | 07/04/05 |
| GENERAL CONSTRUCTION COMPANY | 02/01/02 | COSMOTE | |
| HERMES REAL ESTATE ENTERPRISES | 21/01/02 | ELEPHANT | 14/04/05 |
| ATEMKE | 29/01/02 | LOGIC DATA INFORMATION SYSTEMS | 15/04/05 |
| C.I. SARANTOPOULOS | 29/01/02 | ARROW AEEX | 25/04/05 |
| S. SIGALAS | 29/01/02 | DELTA SINGULAR | 26/04/05 |
| RADIO ATHINAI | 22/03/02 | INTRASOFT | 03/05/05 |
| PAPASTRATOS | 06/05/03 | EUROBROKERS | 04/05/05 |
| DIEKAT S.A. | 23/07/03 | FOURLIS HOLDINGS | 05/05/05 |
| TECHNICAL OLYMPIC | 23/07/03 | SHIPPING COMPANY OF LESVOS (NEL) | 10/05/05 |
| ELTON DIETHNOUS EMPORIOU | 23/12/03 | NATIONAL ASSET MANAGEMENT COMPANY | 26/05/05 |
| GENIKI BANK | 13/01/04 | DOMUS AEEX | 26/05/05 |
| DRUCKFARBEN | 21/01/04 | ALBIO HOLDINGS | 07/06/05 |
| VODAFONE-PANAFON | 21/01/04 | BYTE COMPUTER | 08/06/05 |
| PAVLIDIS CHOCOLATE COMPANY | 04/03/04 | AEGEK | 16/06/05 |
| LAMPSA | 09/03/04 | EMPORIKOS DESMOS | 24/06/05 |
| ALPHA LEASING | 19/04/04 | LAMDA DEVELOPMENT | 29/06/05 |
| | 28/05/04 | INFORM P. LYKOS | 04/07/05 |
| FOINIX ASFALEIES | 07/06/04 | ARROW AEEX | 04/07/05 |
| FOURLIS HOLDINGS | | | 12/07/05 |
| DELTA SINGULAR | 10/06/04 | EPILEKTOS | 12/07/05 |
| PIRAEUS LEASING AE (L) | 29/06/04 | NEWSPHONE HELLAS | |
| P. KOTSOVOLOS | 08/07/04 | IMACO INTERACTIVE | 19/07/05 |
| FEEDUS | 06/08/04 | FORTHNET | 21/07/05 |
| ELEPHANT | 12/08/04 | ANEK LINES | 28/07/05 |
| EMPORIKI EPENDITIKI | 12/08/04 | ETHNIKI REAL ESTATE | 29/07/05 |
| HELLENIC PETROLEUM | 17/08/04 | EUROBANK PROPERTIES | 11/08/05 |
| KERANIS HOLDINGS | 10/09/04 | ATHINA TECHNICAL S.A. | 19/08/05 |
| ETEM | 23/09/04 | EGNATIA BANK | 02/09/05 |
| NEW MILLENIUM AEEX | 23/09/04 | EURODRIP | 06/09/05 |
| NATIONAL ASSET MANAGEMENT COMPANY | 28/09/04 | VETERIN | 13/09/05 |
| ATTICA PUBLICATIONS | 18/10/04 | PIRAEUS FIXED ASSETS | 14/09/05 |
| DELTA SINGULAR | 04/11/04 | FORTHNET | 15/09/05 |
| DIONIC | 04/11/04 | MOTOR OIL HELLAS | 19/09/05 |
| SIDENOR | 05/11/04 | DELTA PROJECT | 05/10/05 |
| AGET HRAKLIS | 11/11/04 | DOL | 11/10/05 |
| | 16/11/04 | POULIADHS | 26/10/05 |
| P. KOTSOVOLOS | | MPALLIS CHEMICALS | 03/11/05 |
| SPIDER N.PETSIOS & SONS | 17/11/04 | | 04/11/05 |
| ELVAL | 18/11/04 | FORTHNET | 17/11/05 |
| X. MPENROUMPH & SONS | 24/11/04 | SOLVENCY INTERNATIONAL HOLDINGS | |
| GEK | 07/12/04 | AB BASILOPOULOS | 17/11/05 |
| LOGIC DATA INFORMATION SYSTEMS | 16/12/04 | СРІ | 07/12/05 |
| ERGONOMIA | 16/12/04 | FRIGOGLASS | 16/12/05 |
| SEAFARM IONIAN | 16/12/04 | CHIPITA INTERNATIONAL | 19/12/05 |
| X, ROKAS | 17/12/04 | GOODY'S | 19/12/05 |
| PIRAEUS LEASING | 17/12/04 | MPARMPA STATHIS GENERAL FOOD COMPANY | 19/12/05 |
| PIRAEUS REAL ESTATE | 17/12/04 | DELTA ICE CREAMS | 20/12/05 |
| INFORM P LYKOS | 22/12/04 | X. ROKAS | 27/12/05 |

Table 2
Total Sample of Acquiring Firms

| Total Sample of Acquiring Firms | | | | | |
|---|----------------------|----------------------------|-------------------|--|----------------------|
| Acquiring Firms | Announcement Date | Acquiring Firms | Announcement Date | Acquiring Firms | Announcement Date |
| SILVER AND BARYTE ORES MINING COMPANY | 07/01/97 | TERNA | 02/01/02 | ALPHA BANK | 18/06/04 |
| SIDENOR S.A. (FORMER ERLIKON) | 20/01/97 | SYSTEMS | 04/01/02 | CHIPITA INTERNATIONAL | 21/06/04 |
| INTERSAT | 05/02/97 | VIOTER | 21/01/02 | INFORM P. LYKOS | 29/06/04 |
| NIREFS | 18/02/97 | ATTI-KAT | 29/01/02 | PIRAEUS BANK | 29/06/04 |
| VIOCHALKO | 28/02/97 | PANTECHNIKI | 29/01/02 | SELMAN GREEK-SWISS WOOD ELABORATION CC | 01/07/04 |
| CHATZIIOANNOU HOLDINGS | 28/02/97 | VIOHALCO | 30/01/02 | ILIDA | 02/07/04 |
| HELLENIC BOTTLING COMPANY | 14/03/97 | ATHENA | 30/01/02 | KANTOR | 13/07/04 |
| SANYO HELLAS HOLDING | 31/03/97 | EFKLEIDIS | 30/01/02 | I. MPOUTARIS & SONS HOLDING COMPANY | 19/07/04 |
| GR. SARANTIS | 07/10/97 | EKTER S. | 31/01/02 | FHL MERMEREN KOMBINAT | 19/07/04 |
| EPIPHANIA | 08/01/98 | DOMIKI OF CRETA | 04/02/02 | SANYO HELLAS HOLDING | 21/07/04 |
| SELONDA AQUACULTURE | 30/03/98 | P. KOTSOVOLOS | 22/03/02 | GOODY'S | 23/07/04 |
| ATHENS MEDICAL CENTER | 24/04/98 | ALTE A.T.E. | 04/06/02 | NATIONAL BANK OF GREECE | 21/07/04 |
| GOODYS | 19/06/98 | ESKIMO | 04/10/02 | LOGIC DATA INFORMATION SYSTEMS | 28/07/04 |
| MICROMEDIA - BRITANNIA | 18/01/99 | HELLENIC PETROLEUM | 02/05/03 | EDRASIS - C. PSALLIDAS | 30/07/04 |
| SANYO HELLAS HOLDING | 18/01/99 | MOCHLOS | 23/07/03 | ELTRAK | 02/08/04 |
| HELLENIC BOTTLING COMPANY | 08/03/99 | KOYMBAS | 03/07/03 | NIREFS | 05/08/04 |
| STABILTON | 27/05/99 | FRIGOGLASS | 22/12/03 | AKTOR | 05/08/04 |
| LOGIC DATA INFORMATION SYSTEMS | 18/06/99 | THRAKIS PLASTICS | 22/12/03 | ALLATINI CERAMICS | 05/08/04 |
| ERGAS | 11/10/99 | ELGEKA | 01/02/04 | HELLENIC TECHNODOMIKI | 10/08/04 |
| DIEKAT | 14/01/00 | KIRIAKOULIS | 15/01/04 | RADIO KORASIDIS | 12/08/04 |
| C.A.P. COSMETICS | 28/02/00 | EUROMEDICA | 20/01/04 | COMMERCIAL BANK | 12/08/04 |
| VOLOS TECHNICAL COMPANY | 02/06/00 | DIONIC | 21/01/04 | ELTON INTERNATIONAL TRADE | 18/08/04 |
| | 20/06/00 | ALKO, HERMANN GUTMANN W | 21/01/04 | GERMANOS | 15/09/04 |
| HELLATEX S.A. SYNTHETIC YARNS | | COCA COLA 3E | 28/01/04 | ALPHA BANK | 17/09/04 |
| DELTA SINGULAR | 08/09/00 11/09/00 | PETZETAKIS | 02/02/04 | ELVAL | 23/09/04 |
| ATERMON | | | | NATIONAL BANK OF GREECE | 28/09/04 |
| ATHINEA | 11/10/00 | EGNATIA ASFALISTIKI | 02/06/04 | SPINNING MILLS OF NAOUSA | 06/10/04 |
| PANAFON | 25/10/00 | VIVERE | 20/02/04 | 1 | |
| DIEKAT | 11/12/00 | SIDENOR S.A. (FORMER ERLIK | 26/02/04 | ALOYMIL MILONAS HELLENIC TECHNODOMIKI | 11/10/04 12/10/04 |
| NEORION NEW SYROS SHIPYARDS | 27/12/00 | LOULI MILLS | 04/03/04 | | 15/10/04 |
| GENERAL CLINIC | 10/01/01 | DIAS FISH CULTURE | 08/03/04 | CROWN HELLAS | 29/10/04 |
| INFO-QUEST | 10/01/01 | GALAXIDI FISH CULTURE | 08/03/04 | M.I. MAILLIS | |
| HELLENIC FABRICS | 22/01/01 | HYATT REGENCY | 09/03/04 | VIOCHALKO | 05/11/04 |
| KLAOUDATOS G. | 29/01/01 | LOGIC DATA INFORMATION SY | 11/03/04 | ELGEKA | 16/11/04 |
| EDRASIS - C. PSALLIDAS | 07/02/01 | DELTA ICE DREAMS | 11/03/04 | ASPIS PRONOIA | 17/11/04 |
| RADIO A. KORASSIDIS COMMERCIAL ENTERPRISE | 09/02/01 | EYROPAIKI PISTI | 15/03/04 | KLOUKINAS LAPPAS | 18/11/04 |
| METALLOPLASTIKI AGRINIOU | 23/02/01 | LAVIPHARM | 10/03/04 | EUROMEDICA | 19/11/04 |
| HERACLES GENERAL CEMENT COMPANY | 28/02/01 | MPARMPA STATHIS GENERAL | 02/04/04 | DELTA HOLDINGS | 22/11/04 |
| MACEDONIA PLASTICS | 28/02/01 | S&B INDUSTRIAL MINERALS | 07/04/04 | OPTIMA AEEX | 26/11/04 |
| F.H.L. H. KYRIAKIDIS MARBLES - GRANITES | 06/03/01 | VETERIN | 19/04/04 | ALPHA TRUST ANDROMEDA AÉEX | 01/12/04 |
| ALTEC C.A. INFORM. & COMMUN. SYST. | 15/03/01 | ALPHA BANK | 19/04/04 | DOL | 02/12/04 |
| HELLENIC TECHNODOMIKI | 26/03/01 | EUROMEDICA | 21/04/04 | INFORM P. LYKOS | 03/12/04 |
| NOTOS COM HOLDINGS | 30/03/01 | DELTA SINGULAR | 22/04/04 | NIREFS | 16/12/04 |
| INTRACOM | 12/04/01 | NEW MILLENIUM AEEX | 29/04/04 | PIRAEUS BANK | 17/12/04 |
| ATHENS MEDICAL CENTER | 19/04/01 | MYTILINAIOS GROUP OF COMF | 13/05/04 | DIEKAT | 20/12/04 |
| NAOUSSA SPINNING MILLS | 14/05/01 | ALOYMIL MILONAS | 18/05/04 | ASPIS BANK | 22/12/04 |
| SELONDA FISH CULTURE | 17/07/01 | GERMANOS | 19/05/04 | EUROSYMBOULOI | 23/12/04 |
| PANAFON | 09/08/01 | JUMBO | 25/05/04 | HITECH CONSULTANTS | 31/12/04 |
| G. GIANOUSIS | 09/08/01 | IPIROTIKI SOFTWARE | 26/05/04 | ORIZONTES COMMERCIAL HOLDING COMPANY | 04/01/05 |
| YALCO - CONSTANTINOY | 09/08/01 | SIGMA SECURITIES | 09/06/04 | ATTICA S.A. HOLDINGS | 05/01/05 |
| MICROMEDIA - BRITANNIA | 16/11/01 | EFG EUROBANK ERGASIAS | 09/06/04 | PANTECHNIKI | 11/01/05 |
| FANCO | 19/12/01 | LOGIC DATA INFORMATION | 10/06/04 | AKTOR | 11/01/05 |
| THEMELIODOMI | 28/12/01 | V&O COMMUNICATIONS | 17/06/04 | PERSEFS SPECIAL FOOD PRODUCTS | 13/01/05 |
| 1 | | 1 | | | |

Source: Naftemporiki

Table 2 (cont.)
Total Sample of Acquiring Firms

| Acquiring Firms | Announcement Date | Acquiring Firms Acquiring Firms | Announcement Date |
|--|-------------------|-----------------------------------|-------------------|
| BARAGKIS S.A. | 17/01/05 | DELTA PROJECT | 16/06/05 |
| MARAK ELECTRONICS | 18/01/05 | PIRAEUS BANK | 21/06/05 |
| I. MPOUTARIS & SONS HOLDING | 24/01/05 | ASPIS PRONOIA AEGAK | 22/06/05 |
| PIRAEUS BANK | 25/01/05 | EGNATIA ASFALISTIKI | 24/06/05 |
| | | OTE | 27/06/05 |
| ALPHA BANK | 27/01/05 | | 28/06/05 |
| SFAKIANAKIS S.A. | 28/01/05 | ALTEC | |
| TITAN | 28/01/05 | CHIPITA INTERNATIONAL | 07/07/05 |
| FHL MERMEREN NOMBINAT A.D. PRILER | 01/02/05 | EDRASIS - C. PSALLIDAS | 08/07/05 |
| HELLENIC SUGAR COMPANY | 02/02/05 | INTRALOT | 11/07/05 |
| MINOAN LINES | 08/02/05 | ATHENS MEDICAL CENTER | 12/07/05 |
| DELTA SINGULAR | 10/02/05 | EUROMEDICA | 14/07/05 |
| DELTA HOLDINGS | 15/02/05 | INTRACOM | 21/07/05 |
| AUTOHELLAS | 15/02/05 | NHREFS | 21/07/05 |
| COCA COLA 3E | 21/02/05 | SFAKIANAKIS | 21/07/05 |
| ATTICA S.A. HOLDINGS | 22/02/05 | HELLENIC TECHNODOMIKI | 28/07/05 |
| MATHIOS PIRIMAXA | 22/02/05 | NATIONAL BANK OF GREECE | 29/07/05 |
| VIOCHALKO | 03/03/05 | GERMANOS | 04/08/05 |
| PIRAEUS BANK | 03/03/05 | SOLINOURGIA KORINTHOU | 04/08/05 |
| MYTILINAIOS S.A GROUP OF COMPANIES | 10/03/05 | EFG EUROBANK ERGASIAS | 11/08/05 |
| GERMANOS | 11/03/05 | EURODRIP | 11/08/05 |
| DIEKAT | 21/03/05 | PIRAEUS BANK | 25/08/05 |
| INTRAKAT | 24/03/05 | MARFIN FINANCIAL GROUP | 02/09/05 |
| EUROLINE | 24/03/05 | DELTA PROJECT | 02/09/05 |
| ELGEKA | 28/03/05 | GLOBAL AEEX | 06/09/05 |
| EFG EUROBANK ERGASIAS | 29/03/05 | HELLENIC FISH CULTURE | 07/09/05 |
| COCA COLA 3E | 01/04/05 | DIAS FISH CULTURE | 12/09/05 |
| DELTA HOLDINGS | 04/04/05 | COMMERCIAL BANK | 14/09/05 |
| NOTOS COM HOLDINGS | 04/04/05 | GERMANOS | 20/09/05 |
| OTE | 07/04/05 | SFAKIANAKIS | 26/09/05 |
| NEWSPHONE HELLAS | 07/04/05 | DUTY FREE SHOPS | 26/09/05 |
| HITECH CONSULTANTS | 08/04/05 | SELONDA AQUACULTURE S.A. | 30/09/05 |
| DELTA PROJECT | 13/04/05 | ETHNIKI ASFALISTIKI | 13/10/05 |
| TITAN | 13/04/05 | PIRAEUS BANK | 26/10/05 |
| PIRAEUS REAL ESTATE | 15/04/05 | NEOXHMIKI LAVRENTIADIS | 03/11/05 |
| ALPHA BANK | 26/04/05 | NHREFS | 03/11/05 |
| AGET HRAKLHS | 26/04/05 | THRAKIS PLASTICS | 04/11/05 |
| INTRACOM | 03/05/05 | NATIONAL BANK OF GREECE | 08/11/05 |
| KOUMBAS HOLDINGS | 04/05/05 | EFG EUROBANK ERGASIAS | 15/11/05 |
| ATTICA S.A. HOLDINGS | 05/05/05 | CRETA FARM | 17/11/05 |
| SELONDA FISH CULTURE | 19/05/05 | DIAS FISH CULTURE | 22/11/05 |
| I control of the cont | 24/05/05 | | 29/11/05 |
| HELLENIC FISH CULTURE | | INTRALOT IMAKO MEDIA NET GROUP | 07/12/05 |
| NOTOS COM HOLDINGS | 25/05/05 | | |
| NATIONAL BANK OF GREECE | 26/05/05 | M.I. MAILLIS | 13/12/05 |
| COSMOTE | 27/05/05 | DELTA HOLDINGS | 19/12/05 |
| KALPINHS - SIMOS | 27/05/05 | PIRAEUS BANK | 28/12/05 |
| EFG EUROBANK ERGASIAS | 01/06/05 | GEK | 31/12/05 |



Table 3
Sample of Target Firms Involved in Cross-Border M&As

| Target Firms | Announcement Date |
|----------------------------------|-------------------|
| PAPASTRATOS | 06/05/03 |
| ELTON DIETHNOUS EMPORIOU | 23/12/03 |
| GENIKI BANK | 13/01/04 |
| VODAFONE-PANAFON | 21/01/04 |
| FOINIX ASFALEIES | 28/05/04 |
| FOURLIS HOLDINGS | 07/06/04 |
| DELTA SINGULAR | 10/06/04 |
| P. KOTSOVOLOS | 08/07/04 |
| ATTICA PUBLICATIONS | 18/10/04 |
| P. KOTSOVOLOS | 16/11/04 |
| ERGONOMIA | 16/12/04 |
| X. ROKAS | 17/12/04 |
| LANNET | 29/12/04 |
| X. MPENROUMPH & SONS | 24/01/05 |
| MOURIADHS | 16/03/05 |
| ARROW AEEX | 25/04/05 |
| SHIPPING COMPANY OF LESVOS (NEL) | 10/05/05 |
| IMACO INTERACTIVE | 19/07/05 |
| FORTHNET | 15/09/05 |
| FORTHNET | 04/11/05 |
| SOLVENCY INTERNATIONAL HOLDINGS | 17/11/05 |
| AB BASILOPOULOS | 17/11/05 |
| FRIGOGLASS | 16/12/05 |
| DELTA ICE CREAMS | 20/12/05 |
| X. ROKAS | 27/12/05 |

Source:Naftemporiki



Table 4
Sample of Acquiring Firms involved in Cross-Border M&As

| Acquiring Firms | Announcement Date | Acquiring Firms | Announcement Date |
|--------------------------------|-------------------|-----------------------------------|-------------------|
| THRAKIS PLASTICS | 22/12/03 | PIRAEUS BANK | 25/01/05 |
| KIRIAKOULIS | 15/01/04 | ALPHA BANK | 27/01/05 |
| ALKO, HERMANN GUTMANN WERKE | 21/01/04 | SFAKIANAKIS S.A. | 28/01/05 |
| COCA COLA 3E | 28/01/04 | FHL MERMEREN NOMBINAT A.D. PRILER | 01/02/05 |
| PETZETAKIS | 02/02/04 | HELLENIC SUGAR COMPANY | 02/02/05 |
| EGNATIA ASFALISTIKI | 02/06/04 | COCA COLA 3E | 21/02/05 |
| VIVERE | 20/02/04 | GERMANOS | 11/03/05 |
| SIDENOR S.A. (FORMER ERLIKON) | 26/02/04 | EFG EUROBANK ERGASIAS | 29/03/05 |
| LOULI MILLS | 04/03/04 | COCA COLA 3E | 01/04/05 |
| DIAS FISH CULTURE | 08/03/04 | NOTOS COM HOLDINGS | 25/05/05 |
| GALAXIDI FISH CULTURE | 08/03/04 | COSMOTE | 27/05/05 |
| DELTA ICE DREAMS | 11/03/04 | EFG EUROBANK ERGASIAS | 01/06/05 |
| MPARMPA STATHIS GENERAL FOODS | 02/04/04 | PIRAEUS BANK | 21/06/05 |
| S&B INDUSTRIAL MINERALS | 07/04/04 | ASPIS PRONOIA AEGAK | 22/06/05 |
| VETERIN | 19/04/04 | ALTEC | 28/06/05 |
| NEW MILLENIUM AEEX | 29/04/04 | CHIPITA INTERNATIONAL | 07/07/05 |
| MYTILINAIOS GROUP OF COMPANIES | 13/05/04 | INTRALOT | 11/07/05 |
| ALOYMIL MILONAS | 18/05/04 | HELLENIC TECHNODOMIKI | 28/07/05 |
| GERMANOS | 19/05/04 | GERMANOS - | 04/08/05 |
| JUMBO | 25/05/04 | SOLINOURGIA KORINTHOU | 04/08/05 |
| INFORM P. LYKOS | 29/06/04 | EURODRIP | 11/08/05 |
| KANTOR | 13/07/04 | PIRAEUS BANK | 25/08/05 |
| FHL MERMEREN KOMBINAT | 19/07/04 | GERMANOS | 20/09/05 |
| NATIONAL BANK OF GREECE | 21/07/04 | ETHNIKI ASFALISTIKI | 13/10/05 |
| EDRASIS - C. PSALLIDAS | 30/07/04 | NHREFS | 03/11/05 |
| ELTRAK | 02/08/04 | NATIONAL BANK OF GREECE | 08/11/05 |
| GERMANOS | 15/09/04 | INTRALOT | 29/11/05 |
| ALPHA BANK | 17/09/04 | M.I. MAILLIS | 13/12/05 |
| CROWN HELLAS | 15/10/04 | PIRAEUS BANK | 28/12/05 |
| M.I. MAILLIS | 29/10/04 | | |
| INFORM P. LYKOS | 03/12/04 | | |
| EUROSYMBOULOI | 23/12/04 | | |
| MARAK ELECTRONICS | 18/01/05 | | |



Table 5

Sample of Target Firms Involved in Domestic M&As

| Target Firms | Announcement Date | Target Firms | Announcement Date |
|--|----------------------|-------------------------------------|-------------------|
| DELTA INFORMATICS | 08/09/00 | DOMUS AEEX | 14/01/05 |
| UNIFON | 25/10/00 | MOURIADHS | 18/01/05 |
| ERGODATA S.A. | 10/01/01 | LAMPSA | 19/01/05 |
| VOLOS TECHNICAL COMPANY | 26/03/01 | DELTA PROTIPOS MILK COMPANY | 15/02/05 |
| C.A.P. COSMETICS | 30/03/01 | MINOAN LINES | 22/02/05 |
| ENDYSSI S.A. | 30/03/01 | SOLLINOURGIA KORINTHOU | 03/03/05 |
| LABROPOULOS BROS. | 30/03/01 | HELLENIC TECHNODOMIKI | 09/03/05 |
| SPORTSMAN | 30/03/01 | ALLUMINIUM OF GREECE | 10/03/05 |
| INTRASOFT | 12/04/01 | MPARMPA STHATHIS GENERAL FOOD | 04/04/05 |
| ATHENS MEDICAL CLINIC OF FALIRO | 19/04/01 | соѕмоте | 07/04/05 |
| NEXTNET S.A. | 09/08/01 | ELEPHANT | 14/04/05 |
| KLAOUDATOS G. | 16/11/01 | LOGIC DATA INFORMATION SYSTEMS | 15/04/05 |
| GENERAL CONSTRUCTION COMPANY | 02/01/02 | DELTA SINGULAR | 26/04/05 |
| HERMES REAL ESTATE ENTERPRISES | 21/01/02 | INTRASOFT | 03/05/05 |
| ATEMKE | 29/01/02 | EUROBROKERS | 04/05/05 |
| C.I. SARANTOPOULOS | 29/01/02 | FOURLIS HOLDINGS | 05/05/05 |
| S. SIGALAS | 29/01/02 | NATIONAL ASSET MANAGEMENT COM | 26/05/05 |
| RADIO ATHINAI | 22/03/02 | DOMUS AEEX | 26/05/05 |
| DIEKAT S.A. | 23/07/03 | ALBIO HOLDINGS | 07/06/05 |
| TECHNICAL OLYMPIC | 23/07/03 | BYTE COMPUTER | 08/06/05 |
| DRUCKFARBEN | 21/01/04 | AEGEK | 16/06/05 |
| PAVLIDIS CHOCOLATE COMPANY | 04/03/04 | EMPORIKOS DESMOS | 24/06/05 |
| LAMPSA | 09/03/04 | LAMDA DEVELOPMENT | 29/06/05 |
| ALPHA LEASING | 19/04/04 | INFORM P. LYKOS | 04/07/05 |
| PIRAEUS LEASING AE (L) | 29/06/04 | ARROW AEEX | 04/07/05 |
| FEEDUS | 06/08/04 | EPILEKTOS | 12/07/05 |
| ELEPHANT | 12/08/04 | NEWSPHONE HELLAS | 12/07/05 |
| EMPORIKI EPENDITIKI | 12/08/04 | FORTHNET | 21/07/05 |
| HELLENIC PETROLEUM | 17/08/04 | ANEK LINES | 28/07/05 |
| KERANIS HOLDINGS | 10/09/04 | ETHNIKI REAL ESTATE | 29/07/05 |
| ETEM | 23/09/04 | EUROBANK PROPERTIES | 11/08/05 |
| NEW MILLENIUM AEEX | 23/09/04 | ATHINA TECHNICAL S.A. | 19/08/05 |
| NATIONAL ASSET MANAGEMENT COMPANY | 28/09/04 | EGNATIA BANK | 02/09/05 |
| DELTA SINGULAR | 04/11/04 | EURODRIP | 06/09/05 |
| DIONIC | 04/11/04 | VETERIN | 13/09/05 |
| SIDENOR | 05/11/04 | PIRAEUS FIXED ASSETS | 14/09/05 |
| AGET HRAKLIS | 11/11/04 | MOTOR OIL HELLAS | 19/09/05 |
| SPIDER N.PETSIOS & SONS | 17/11/04 | DELTA PROJECT | 05/10/05 |
| ELVAL | 18/11/04 | IDOL | 11/10/05 |
| IX. MPENROUMPH & SONS | 24/11/04 | POULIADHS | 26/10/05 |
| P. Control of the con | 07/12/04 | MPALLIS CHEMICALS | 03/11/05 |
| GEK | 16/12/04 | CPI | 03/11/03 |
| LOGIC DATA INFORMATION SYSTEMS | | CHIPITA INTERNATIONAL | 19/12/05 |
| SEAFARM IONIAN | 16/12/04 17/12/04 | GOODY'S | 19/12/05 |
| PIRAEUS LEASING | | MPARMPA STATHIS GENERAL FOOD (| |
| PIRAEUS REAL ESTATE | 17/12/04 | IVIFANIVIFA STATINIS GENERAL FOOD (| 19/12/05 |
| INFORM P LYKOS | 22/12/04 | _ | 120 |

Table 6
Sample of Acquiring Firms Involved in Domestic M&As

| Acquiring Firms | Announcement Date | Acquiring Firms | Announcement Date |
|---|-------------------|--------------------------------------|-------------------|
| DELTA SINGULAR | 08/09/00 | SANYO HELLAS HOLDING | 21/07/04 |
| PANAFON | 25/10/00 | GOODY'S | 23/07/04 |
| INFO-QUEST | 10/01/01 | LOGIC DATA INFORMATION SYSTEMS | 28/07/04 |
| HELLENIC TECHNODOMIKI | 26/03/01 | NIREFS | 05/08/04 |
| NOTOS COM HOLDINGS | 30/03/01 | AKTOR | 05/08/04 |
| INTRACOM | 12/04/01 | ALLATINI CERAMICS | 05/08/04 |
| ATHENS MEDICAL CENTER | 19/04/01 | HELLENIC TECHNODOMIKI | 10/08/04 |
| PANAFON | 09/08/01 | RADIO KORASIDIS | 12/08/04 |
| MICROMEDIA - BRITANNIA | 16/11/01 | COMMERCIAL BANK | 12/08/04 |
| TERNA | 02/01/02 | ELTON INTERNATIONAL TRADE | 18/08/04 |
| VIOTER | 21/01/02 | ELVAL | 23/09/04 |
| ATTI-KAT | 29/01/02 | NATIONAL BANK OF GREECE | 28/09/04 |
| PANTECHNIKI | 29/01/02 | SPINNING MILLS OF NAOUSA | 06/10/04 |
| P. KOTSOVOLOS | 22/03/02 | ALOYMIL MILONAS | 11/10/04 |
| MOCHLOS | 23/07/03 | HELLENIC TECHNODOMIKI | 12/10/04 |
| KOYMBAS | 03/07/03 | VIOCHALKO | 05/11/04 |
| FRIGOGLASS | 22/12/03 | ELGEKA | 16/11/04 |
| ELGEKA | 01/02/04 | ASPIS PRONOIA | 17/11/04 |
| EUROMEDICA | 20/01/04 | KLOUKINAS LAPPAS | 18/11/04 |
| DIONIC | 21/01/04 | EUROMEDICA | 19/11/04 |
| HYATT REGENCY | 09/03/04 | DELTA HOLDINGS | 22/11/04 |
| LOGIC DATA INFORMATION SYSTEMS | 11/03/04 | OPTIMA AEEX | 26/11/04 |
| EYROPAIKI PISTI | 15/03/04 | ALPHA TRUST ANDROMEDA AEEX | 01/12/04 |
| LAVIPHARM | 10/03/04 | DOL | 02/12/04 |
| ALPHA BANK | 19/04/04 | NIREFS | 16/12/04 |
| EUROMEDICA | 21/04/04 | PIRAEUS BANK | 17/12/04 |
| DELTA SINGULAR | 22/04/04 | DIEKAT | 20/12/04 |
| IPIROTIKI SOFTWARE | 26/05/04 | ASPIS BANK | 22/12/04 |
| SIGMA SECURITIES | 09/06/04 | HITECH CONSULTANTS | 31/12/04 |
| EFG EUROBANK ERGASIAS | 09/06/04 | ORIZONTES COMMERCIAL HOLDING COMPANY | 04/01/05 |
| LOGIC DATA INFORMATION SYSTEMS | 10/06/04 | ATTICA S.A. HOLDINGS | 05/01/05 |
| V&O COMMUNICATIONS | 17/06/04 | PANTECHNIKI | 11/01/05 |
| ALPHA BANK | 18/06/04 | AKTOR | 11/01/05 |
| CHIPITA INTERNATIONAL | 21/06/04 | PERSEFS SPECIAL FOOD PRODUCTS | 13/01/05 |
| PIRAEUS BANK | 29/06/04 | BARAGKIS S.A. | 17/01/05 |
| SELMAN GREEK-SWISS WOOD ELABORATION COMPANY | 01/07/04 | I. MPOUTARIS & SONS HOLDING | 24/01/05 |
| ILIDA | 02/07/04 | TITAN | 28/01/05 |
| MPOUTARIS & SONS HOLDING COMPANY | 19/07/04 | MINOAN LINES | 08/02/05 |



Table 6 (cont.)
Sample of Acquiring Firms Involved in Domestic M&As

| Acquiring Firms | Announcement Date | Acquiring Firms | Announcement Date |
|------------------------------------|-------------------|--------------------------|-------------------|
| DELTA SINGULAR | 10/02/05 | DELTA PROJECT | 16/06/05 |
| DELTA HOLDINGS | 15/02/05 | EGNATIA ASFALISTIKI | 24/06/05 |
| AUTOHELLAS | 15/02/05 | OTE | 27/06/05 |
| ATTICA S.A. HOLDINGS | 22/02/05 | EDRASIS - C. PSALLIDAS | 08/07/05 |
| MATHIOS PIRIMAXA | 22/02/05 | ATHENS MEDICAL CENTER | 12/07/05 |
| VIOCHALKO | 03/03/05 | EUROMEDICA | 14/07/05 |
| PIRAEUS BANK | 03/03/05 | INTRACOM | 21/07/05 |
| MYTILINAIOS S.A GROUP OF COMPANIES | 10/03/05 | NHREFS | 21/07/05 |
| DIEKAT | 21/03/05 | SFAKIANAKIS | 21/07/05 |
| INTRAKAT | 24/03/05 | NATIONAL BANK OF GREECE | 29/07/05 |
| EUROLINE | 24/03/05 | EFG EUROBANK ERGASIAS | 11/08/05 |
| ELGEKA | 28/03/05 | MARFIN FINANCIAL GROUP | 02/09/05 |
| DELTA HOLDINGS | 04/04/05 | DELTA PROJECT | 02/09/05 |
| NOTOS COM HOLDINGS | 04/04/05 | GLOBAL AEEX | 06/09/05 |
| OTE | 07/04/05 | HELLENIC FISH CULTURE | 07/09/05 |
| NEWSPHONE HELLAS | 07/04/05 | DIAS FISH CULTURE | 12/09/05 |
| HITECH CONSULTANTS | 08/04/05 | COMMERCIAL BANK | 14/09/05 |
| DELTA PROJECT | 13/04/05 | SFAKIANAKIS | 26/09/05 |
| TITAN | 13/04/05 | DUTY FREE SHOPS | 26/09/05 |
| PIRAEUS REAL ESTATE | 15/04/05 | SELONDA AQUACULTURE S.A. | 30/09/05 |
| ALPHA BANK | 26/04/05 | PIRAEUS BANK | 26/10/05 |
| AGET HRAKLHS | 26/04/05 | NEOXHMIKI LAVRENTIADIS | 03/11/05 |
| INTRACOM | 03/05/05 | THRAKIS PLASTICS | 04/11/05 |
| KOUMBAS HOLDINGS | 04/05/05 | EFG EUROBANK ERGASIAS | 15/11/05 |
| ATTICA S.A. HOLDINGS | 05/05/05 | CRETA FARM | 17/11/05 |
| SELONDA FISH CULTURE | 19/05/05 | DIAS FISH CULTURE | 22/11/05 |
| HELLENIC FISH CULTURE | 24/05/05 | IMAKO MEDIA NET GROUP | 07/12/05 |
| NATIONAL BANK OF GREECE | 26/05/05 | DELTA HOLDINGS | 19/12/05 |
| KALPINHS - SIMOS | 27/05/05 | GEK | 31/12/05 |

Table 7
Sample of Target Firms Involved in Diversifying M&As

| Target Firm | Announcement Date |
|---------------------------------------|-------------------|
| ALPHA LEASING | 19/04/04 |
| FOURLIS HOLDINGS | 07/06/04 |
| DELTA SINGULAR | 10/06/04 |
| PIRAEUS LEASING AE | 29/06/04 |
| FEEDUS | 06/08/04 |
| HELLENIC PETROLEUM | 17/08/04 |
| DELTA SINGULAR | 04/11/04 |
| DIONIC | 04/11/04 |
| AGET HRAKLIS | 11/11/04 |
| SPIDER N.PETSIOS & SONS | 17/11/04 |
| GEK | 07/12/04 |
| LOGIC DATA INFORMATION SYSTEMS | 16/12/04 |
| PIRAEUS LEASING | 17/12/04 |
| PIRAEUS REAL ESTATE | 17/12/04 |
| LANNET | 29/12/04 |
| LAMPSA | 19/01/05 |
| DELTA PROTIPOS MILK COMPANY | 15/02/05 |
| MINOAN LINES | 22/02/05 |
| HELLENIC TECHNODOMIKI | 09/03/05 |
| ALLUMINIUM OF GREECE | 10/03/05 |
| MPARMPA STHATHIS GENERAL FOOD COMPANY | 04/04/05 |
| LOGIC DATA INFORMATION SYSTEMS | 15/04/05 |
| DELTA SINGULAR | 26/04/05 |
| EUROBROKERS | 04/05/05 |
| NATIONAL ASSET MANAGEMENT COMPANY | 26/05/05 |
| EMPORIKOS DESMOS | 24/06/05 |
| EPILEKTOS | 12/07/05 |
| NEWSPHONE HELLAS | 12/07/05 |
| IMACO INTERACTIVE | 19/07/05 |
| ETHNIKI REAL ESTATE | 29/07/05 |
| EUROBANK PROPERTIES | 11/08/05 |
| EGNATIA BANK | 02/09/05 |
| EURODRIP | 06/09/05 |
| PIRAEUS FIXED ASSETS | 14/09/05 |
| FORTHNET | 15/09/05 |
| MOTOR OIL HELLAS | 19/09/05 |
| POULIADHS | 26/10/05 |
| FORTHNET | 04/11/05 |
| SOLVENCY INTERNATIONAL HOLDINGS | 17/11/05 |
| CHIPITA INTERNATIONAL | 19/12/05 |





Table 8
Sample of Acquiring Firms Involved in Diversifying M&As

| Acquiring Firms | Announcement Date | ng Firms Involved in Diversifying M&As Acquiring Firms | Announcement Date |
|-------------------------------------|-------------------|--|-------------------|
| DELTA SINGULAR | 08/09/00 | DIEKAT | 20/12/04 |
| PANAFON | 25/10/00 | ORIZONTES COMMERCIAL HOLDING COMPANY | 04/01/05 |
| INFO-QUEST | 10/01/01 | ATTICA S.A. HOLDINGS | 05/01/05 |
| HELLENIC TECHNODOMIKI | 26/03/01 | PERSEFS SPECIAL FOOD PRODUCTS | 13/01/05 |
| NOTOS COM HOLDINGS | 30/03/01 | MARAK ELECTRONICS | 18/01/05 |
| INTRACOM | 12/04/01 | DELTA HOLDINGS | 15/02/05 |
| ATHENS MEDICAL CENTER | 19/04/01 | AUTOHELLAS | 15/02/05 |
| PANAFON | 09/08/01 | ATTICA S.A. HOLDINGS | 22/02/05 |
| MICROMEDIA - BRITANNIA | 16/11/01 | MYTILINAIOS S.A GROUP OF COMPANIES | 10/03/05 |
| TERNA | 02/01/02 | GERMANOS | 11/03/05 |
| VIOTER | 21/01/02 | DIEKAT | 21/03/05 |
| ATTI-KAT | 29/01/02 | INTRAKAT | 24/03/05 |
| PANTECHNIKI | 29/01/02 | EUROLINE | 24/03/05 |
| P. KOTSOVOLOS | 22/03/02 | ELGEKA | 28/03/05 |
| MOCHLOS | 23/07/03 | EFG EUROBANK ERGASIAS | 29/03/05 |
| KOYMBAS | 03/07/03 | DELTA HOLDINGS | 04/04/05 |
| FRIGOGLASS | 22/12/03 | PIRAEUS REAL ESTATE | 15/04/05 |
| DIONIC | 21/01/04 | ALPHA BANK | 26/04/05 |
| EYROPAIKI PISTI | 15/03/04 | AGET HRAKLHS | 26/04/05 |
| LAVIPHARM | 10/03/04 | KOUMBAS HOLDINGS | 04/05/05 |
| S&B INDUSTRIAL MINERALS | 07/04/04 | ATTICA S.A. HOLDINGS | 05/05/05 |
| VETERIN | 19/04/04 | NATIONAL BANK OF GREECE | 26/05/05 |
| ALPHA BANK | 19/04/04 | EFG EUROBANK ERGASIAS | 01/06/05 |
| DELTA SINGULAR | 22/04/04 | EGNATIA ASFALISTIKI | 24/06/05 |
| MYTILINAIOS GROUP OF COMPANIES | 13/05/04 | CHIPITA INTERNATIONAL | 07/07/05 |
| IPIROTIKI SOFTWARE | 26/05/04 | EDRASIS - C. PSALLIDAS | 08/07/05 |
| EFG EUROBANK ERGASIAS | 09/06/04 | ATHENS MEDICAL CENTER | 12/07/05 |
| V&O COMMUNICATIONS | 17/06/04 | SFAKIANAKIS | 21/07/05 |
| ALPHA BANK | 18/06/04 | HELLENIC TECHNODOMIKI | 28/07/05 |
| PIRAEUS BANK | 29/06/04 | NATIONAL BANK OF GREECE | 29/07/05 |
| I. MPOUTARIS & SONS HOLDING COMPANY | 19/07/04 | EFG EUROBANK ERGASIAS | 11/08/05 |
| SANYO HELLAS HOLDING | 21/07/04 | EURODRIP | 11/08/05 |
| AKTOR | 05/08/04 | MARFIN FINANCIAL GROUP | 02/09/05 |
| ALLATINI CERAMICS | 05/08/04 | GLOBAL AEEX | 06/09/05 |
| HELLENIC TECHNODOMIKI | 10/08/04 | COMMERCIAL BANK | 14/09/05 |
| ALPHA BANK | 17/09/04 | PIRAEUS BANK | 26/10/05 |
| ALOYMIL MILONAS | 11/10/04 | NATIONAL BANK OF GREECE | 08/11/05 |
| HELLENIC TECHNODOMIKI | 12/10/04 | EFG EUROBANK ERGASIAS | 15/11/05 |
| ELGEKA | 16/11/04 | M.I. MAILLIS | 13/12/05 |
| ASPIS PRONOIA | 17/11/04 | DELTA HOLDINGS | 19/12/05 |
| KLOUKINAS LAPPAS | 18/11/04 | PIRAEUS BANK | 28/12/05 |
| DOL | 02/12/04 | GEK | 31/12/05 |
| | 17/12/04 | GEN | \$1/12/05 |
| PIRAEUS BANK | 17/12/04 | | / |

Table 9
Sample of Target Firms Involved in Non-Diversifying M&As

| Target Firms | Announcement Date | Target Firms | Announcement Date |
|-----------------------------------|-------------------|--------------------------------------|-------------------|
| DELTA INFORMATICS | 08/09/00 | ELVAL | 18/11/04 |
| UNIFON | 25/10/00 | X. MPENROUMPH & SONS | 24/11/04 |
| ERGODATA S.A. | 10/01/01 | ERGONOMIA | 16/12/04 |
| VOLOS TECHNICAL COMPANY | 26/03/01 | SEAFARM IONIAN | 16/12/04 |
| C.A.P. COSMETICS | 30/03/01 | X. ROKAS | 17/12/04 |
| ENDYSSI S.A. | 30/03/01 | INFORM P LYKOS | 22/12/04 |
| LABROPOULOS BROS. | 30/03/01 | DOMUS AEEX | 14/01/05 |
| SPORTSMAN | 30/03/01 | MOURIADHS | 18/01/05 |
| INTRASOFT | 12/04/01 | X. MPENROUMPH & SONS | 24/01/05 |
| ATHENS MEDICAL CLINIC OF FALIRO | 19/04/01 | SOLLINOURGIA KORINTHOU | 03/03/05 |
| NEXTNET S.A. | 09/08/01 | MOURIADHS | 16/03/05 |
| KLAOUDATOS G. | 16/11/01 | COSMOTE | 07/04/05 |
| GENERAL CONSTRUCTION COMPANY | 02/01/02 | ELEPHANT | 14/04/05 |
| HERMES REAL ESTATE ENTERPRISES | 21/01/02 | ARROW AEEX | 25/04/05 |
| ATEMKE | 29/01/02 | INTRASOFT | 03/05/05 |
| C.I. SARANTOPOULOS | 29/01/02 | FOURLIS HOLDINGS | 05/05/05 |
| S. SIGALAS | 29/01/02 | SHIPPING COMPANY OF LESVOS (NEL) | 10/05/05 |
| RADIO ATHINAI | 22/03/02 | DOMUS AEEX | 26/05/05 |
| PAPASTRATOS | 06/05/03 | ALBIO HOLDINGS | 07/06/05 |
| DIEKAT S.A. | 23/07/03 | BYTE COMPUTER | 08/06/05 |
| TECHNICAL OLYMPIC | 23/07/03 | AEGEK | 16/06/05 |
| ELTON DIETHNOUS EMPORIOU | 23/12/03 | LAMDA DEVELOPMENT | 29/06/05 |
| GENIKI BANK | 13/01/04 | INFORM P. LYKOS | 04/07/05 |
| DRUCKFARBEN | 21/01/04 | ARROW AEEX | 04/07/05 |
| VODAFONE-PANAFON | 21/01/04 | FORTHNET | 21/07/05 |
| PAVLIDIS CHOCOLATE COMPANY | 04/03/04 | ANEK LINES | 28/07/05 |
| LAMPSA | 09/03/04 | ATHINA TECHNICAL S.A. | 19/08/05 |
| FOINIX ASFALEIES | 28/05/04 | VETERIN | 13/09/05 |
| P. KOTSOVOLOS | 08/07/04 | DELTA PROJECT | 05/10/05 |
| ELEPHANT | 12/08/04 | DOL | 11/10/05 |
| EMPORIKI EPENDITIKI | 12/08/04 | MPALLIS CHEMICALS | 03/11/05 |
| KERANIS HOLDINGS | 10/09/04 | AB BASILOPOULOS | 17/11/05 |
| ETEM | 23/09/04 | CPI | 07/12/05 |
| NEW MILLENIUM AEEX | 23/09/04 | FRIGOGLASS | 16/12/05 |
| NATIONAL ASSET MANAGEMENT COMPANY | 28/09/04 | GOODY'S | 19/12/05 |
| ATTICA PUBLICATIONS | 18/10/04 | MPARMPA STATHIS GENERAL FOOD COMPAN' | 19/12/05 |
| SIDENOR | 05/11/04 | DELTA ICE CREAMS | 20/12/05 |
| P. KOTSOVOLOS | 16/11/04 | X. ROKAS | 27/12/05 |



Table 10
Sample of Acquiring Firms Involved in Non-Diversifying M&A

| Sample of Acquiring Firms Involved in Non-Diversifying M&As | | | | |
|---|-------------------|-----------------------------------|-------------------|--|
| Acquiring Firms | Announcement Date | Acquiring Firms | Announcement Date | |
| THRAKIS PLASTICS | 22/12/03 | AKTOR | 11/01/05 | |
| ELGEKA | 01/02/04 | BARAGKIS S.A. | 17/01/05 | |
| KIRIAKOULIS | 15/01/04 | I. MPOUTARIS & SONS HOLDING | 24/01/05 | |
| EUROMEDICA | 20/01/04 | PIRAEUS BANK | 25/01/05 | |
| ALKO, HERMANN GUTMANN WERKE | 21/01/04 | ALPHA BANK | 27/01/05 | |
| 1 ' | 28/01/04 | SFAKIANAKIS S.A. | 28/01/05 | |
| COCA COLA 3E | | TITAN | 28/01/05 | |
| PETZETAKIS | 02/02/04 | | 01/02/05 | |
| EGNATIA ASFALISTIKI | 02/06/04 | FHL MERMEREN NOMBINAT A.D. PRILER | | |
| VIVERE | 20/02/04 | HELLENIC SUGAR COMPANY | 02/02/05 | |
| SIDENOR S.A. (FORMER ÉRLIKON) | 26/02/04 | MINOAN LINES | 08/02/05 | |
| LOULI MILLS | 04/03/04 | DELTA SINGULAR | 10/02/05 | |
| DIAS FISH CULTURE | 08/03/04 | COCA COLA 3E | 21/02/05 | |
| GALAXIDI FISH CULTURE | 08/03/04 | MATHIOS PIRIMAXA | 22/02/05 | |
| HYATT REGENCY | 09/03/04 | VIOCHALKO | 03/03/05 | |
| LOGIC DATA INFORMATION SYSTEMS | 11/03/04 | PIRAEUS BANK | 03/03/05 | |
| DELTA ICE DREAMS | 11/03/04 | COCA COLA 3E | 01/04/05 | |
| MPARMPA STATHIS GENERAL FOODS | 02/04/04 | NOTOS COM HOLDINGS | 04/04/05 | |
| EUROMEDICA | 21/04/04 | OTE | 07/04/05 | |
| NEW MILLENIUM AEEX | 29/04/04 | NEWSPHONE HELLAS | 07/04/05 | |
| ALOYMIL MILONAS | 18/05/04 | HITECH CONSULTANTS | 08/04/05 | |
| GERMANOS | 19/05/04 | DELTA PROJECT | 13/04/05 | |
| ЈИМВО | 25/05/04 | TITAN | 13/04/05 | |
| SIGMA SECURITIES | 09/06/04 | INTRACOM | 03/05/05 | |
| LOGIC DATA INFORMATION SYSTEMS | 10/06/04 | SELONDA FISH CULTURE | 19/05/05 | |
| CHIPITA INTERNATIONAL | 21/06/04 | HELLENIC FISH CULTURE | 24/05/05 | |
| | 29/06/04 | NOTOS COM HOLDINGS | 25/05/05 | |
| INFORM P. LYKOS | | | 27/05/05 | |
| SELMAN GREEK-SWISS WOOD ELABORATION COMPANY | 01/07/04 | COSMOTE | | |
| ILIDA | 02/07/04 | KALPINHS - SIMOS | 27/05/05 | |
| KANTOR | 13/07/04 | DELTA PROJECT | 16/06/05 | |
| FHL MERMEREN KOMBINAT | 19/07/04 | PIRAEUS BANK | 21/06/05 | |
| GOODY'S | 23/07/04 | ASPIS PRONOIA AEGAK | 22/06/05 | |
| NATIONAL BANK OF GREECE | 21/07/04 | OTE | 27/06/05 | |
| LOGIC DATA INFORMATION SYSTEMS | 28/07/04 | ALTEC | 28/06/05 | |
| EDRASIS - C. PSALLIDAS | 30/07/04 | INTRALOT | 11/07/05 | |
| ELTRAK | 02/08/04 | EUROMEDICA | 14/07/05 | |
| NIREFS | 05/08/04 | INTRACOM | 21/07/05 | |
| RADIO KORASIDIS | 12/08/04 | NHREFS | 21/07/05 | |
| COMMERCIAL BANK | 12/08/04 | GERMANOS | 04/08/05 | |
| ELTON INTERNATIONAL TRADE | 18/08/04 | SOLINOURGIA KORINTHOU | 04/08/05 | |
| GERMANOS | 15/09/04 | PIRAEUS BANK | 25/08/05 | |
| ELVAL | 23/09/04 | DELTA PROJECT | 02/09/05 | |
| NATIONAL BANK OF GREECE | 28/09/04 | HELLENIC FISH CULTURE | 07/09/05 | |
| SPINNING MILLS OF NAOUSA | 06/10/04 | DIAS FISH CULTURE | 12/09/05 | |
| CROWN HELLAS | 15/10/04 | GERMANOS | 20/09/05 | |
| M.I. MAILLIS | 29/10/04 | SFAKIANAKIS | 26/09/05 | |
| | | DUTY FREE SHOPS | 26/09/05 | |
| VIOCHALKO | 05/11/04 | | | |
| EUROMEDICA | 19/11/04 | SELONDA AQUACULTURE S.A. | 30/09/05 | |
| DELTA HOLDINGS | 22/11/04 | ETHNIKI ASFALISTIKI | 13/10/05 | |
| OPTIMA AEEX | 26/11/04 | NEOXHMIKI LAVRENTIADIS | 03/11/05 | |
| ALPHA TRUST ANDROMEDA AEEX | 01/12/04 | NHREFS | 03/11/05 | |
| INFORM P. LYKOS | 03/12/04 | THRAKIS PLASTICS | 04/11/05 | |
| NIREFS | 16/12/04 | CRETA FARM | 17/11/05 | |
| ASPIS BANK | 22/12/04 | DIAS FISH CULTURE | 22/11/05 | |
| EUROSYMBOULOI | 23/12/04 | INTRALOT | 29/11/05 | |
| HITECH CONSULTANTS | 31/12/04 | IMAKO MEDIA NET GROUP | 07/12/05 | |
| PANTECHNIKI | 11/01/05 | | | |

Table 1 Average Abnormal Returns of Target Firms

| Average Abnormal Returns of Target Firms | | | | | |
|--|--------------------------|-------------|-----------|--------------------------|-------------|
| Event Day | Average Abnormal Returns | t-Statistic | Event Day | Average Abnormal Returns | t-Statistic |
| -20 | 0.40% | 0.85 | 1 | 0.70% | 1.14 |
| -19 | -0.17% | -0.41 | 2 | 1.19% | 2,33** |
| -18 | -0.17% | -0.36 | 3 | -0.63% | -1,3 |
| -17 | 0.77% | -1.45 | 4 | 0.38% | 0.84 |
| -16 | 0.92% | 2,20** | 5 | -0.40% | -0.86 |
| -15 | 0.18% | 0.44 | 6 | -0.22% | -0.58 |
| -14 | 0.90% | 2,02** | 7 | -0.15% | -0.40 |
| -13 | -0.36% | -0.73 | 8 | 0.26% | 0.76 |
| -12 | 0.47% | 1.17 | 9 | -0.61% | -1,35 |
| -11 | 0.61% | 1.14 | 10 | -0.94% | -0.73 |
| -10 | -0.63% | -1,48 | 11 | -0.92% | -1,91* |
| -9 | 0.79% | 1,84* | 12 | 0.07% | 0.18 |
| -8 | 0.19% | 0.49 | 13 | -0.17% | -0.42 |
| -7 | 0.10% | 0.31 | 14 | 0.28% | 0.76 |
| -6 | -0.01% | -0.03 | 15 | 0.41% | 1.19 |
| -5 | 0.81% | 1,82* | 16 | -0.05% | -0.12 |
| -4 | -0.08% | -0.20 | 17 | -0.19% | -0.43 |
| -3 | 0.96% | 2,06* | 18 | -0.14% | -0.35 |
| -2 | 0.57% | 1.26 | 19 | -0.40% | -1.16 |
| -1 | 0.82% | 1,66* | 20 | 0.20% | 0.58 |
| 0 | 4.42% | 3,85*** | <u> </u> | | |

^{***,**,*} denote statistical significance at the 1%, 5% and 10% level for two-tailed t-test Source: own calculations

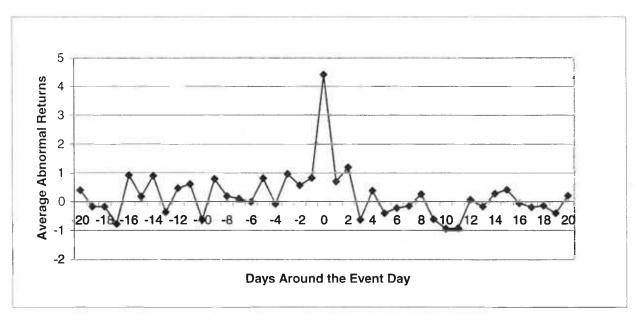
Table 2
Average Cumulative Abnormal Returns of Target Firms

| Range | Cumulative Abnormal Returns | t-Statistic |
|-------------|-----------------------------|-------------|
| CAR(-5,5) | 8.74% | 4,83*** |
| CAR(-2,2) | 7.70% | 5,13*** |
| CAR(0,2) | 6.31% | 4,68*** |
| CAR(0,5) | 5.66% | 3,60*** |
| CAR(0,10) | 4.00% | 1,99** |
| CAR(0,20) | 3.09% | 1.32 |
| CAR(-10,10) | 7.52% | 3,131*** |
| CAR(-20,20) | 8.62% | 2,19** |

^{***, **, *} denote statistical significance at the 1%, 5% and 10% level for two-tailed t-test Source: own calculations

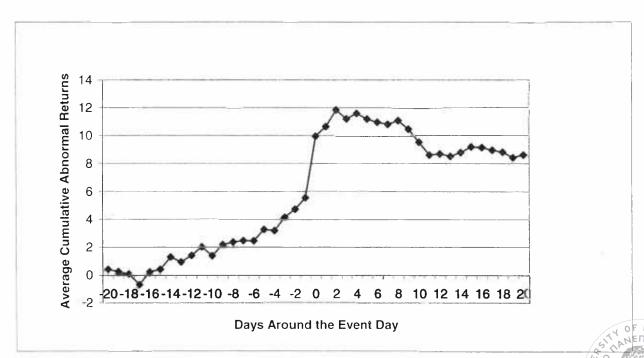


Figure 1
Daily Average Abnormal Returns of Target Firms



Source: Own calculations

Figure 2
Daily Average Cumulative Abnormal Returns of Target Firms



Source: Own calculations

Table 3

Average Abnormal Returns of Acquiring Firms

| F 5 | | A Chadialia | | | 4 (04-4)-4)- |
|-----------|--------------------------|-------------|-----------|------------------------|--------------|
| Event Day | Average Abnormal Returns | t-Statistic | Event Day | rerage Abnormal Return | |
| -20 | -0.16% | -0.733 | 1 | 0.53% | 3,148*** |
| -19 | 0.34% | 1.208 | 2 | -0.21% | -1.430 |
| -18 | -0.01% | -0.076 | 3 | -0.27% | -1.598 |
| -17 | -0.11% | -0.590 | 4 | -0.44% | -2,977*** |
| -16 | 0.08% | 0.523 | 5 | -0.32% | -2,620*** |
| -15 | 0.03% | 0.186 | 6 | 0.02% | 0.139 |
| -14 | 0.07% | 0.368 | 7 | -0.38% | -2,595*** |
| -13 | 0.32% | 1.463 | 8 | -0.41% | -2,794*** |
| -12 | 0.17% | 1.380 | 9 | 0.09% | 0.702 |
| -11 | 0.10% | 0.741 | 10 | -0.46% | -3,105*** |
| -10 | 0.09% | 0.431 | 11 | 0.09% | 0.489 |
| -9 | 0.02% | 0.099 | 12 | -0.16% | -1.256 |
| -8 | -0.08% | -0.657 | 13 | 0.02% | 0.172 |
| -7 | 0.20% | 1.427 | 14 | -0.15% | -1.110 |
| -6 | 0.03% | 0.227 | 15 | -0.40% | -2,778*** |
| -5 | 0.19% | 1.294 | 16 | -0.22% | -1.644 |
| -4 | 0.09% | 0.694 | 17 | -0.06% | -0.418 |
| -3 | 0.00% | -0.012 | 18 | -0.06% | -0.454 |
| -2 | 0.35% | 2,226** | 19 | -0.15% | -1.009 |
| -1 | 0.25% | 1.547 | 20 | 0.21% | 1.301 |
| 0 | 1.09% | 4,650*** | | <u>-</u> | |

^{***, **, *} denote statistical significance at the 1%, 5% and 10% level for two-tailed t-test Source: own calculations

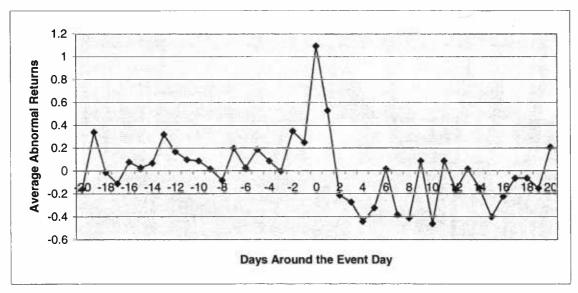
Table 4
Average Cumulative Abnormal Returns of Acquiring Firms

| Range | Cumulative Abnormal Returns | t-Statistic |
|-------------|-----------------------------|-------------|
| CAR(-5,5) | 1.26% | 2,869*** |
| CAR(-2,2) | 2.01% | 4,919*** |
| CAR(0,2) | 1.41% | 4,764*** |
| CAR(0,5) | 0.38% | 1.113 |
| CAR(0,10) | -0.80% | -1,689* |
| CAR(0,20) | -1.60% | -2,269** |
| CAR(-10,10) | 0.38% | 0.618 |
| CAR(-20,20) | 0.33% | 0.960 |

^{***,**,*} denote statistical significance at the 1%, 5% and 10% level for two-tailed t-test Source: own calculations

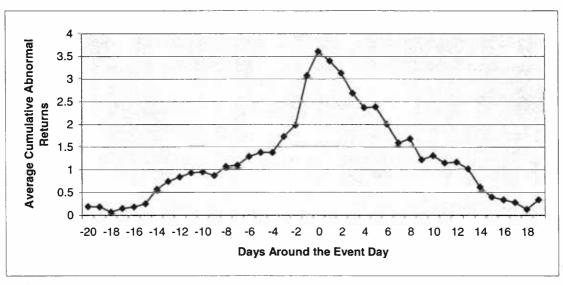


Figure 3
Daily Average Abnormal Returns of Acquiring Firms



Source: own calculations

Figure 4
Daily Average Cumulative Abnormal Returns of Acquiring Firms



Source: own calculations



Table 5
Differerences in Cumulative Abnormal Returns between Domestic vs Cross-Border M&As

| our a bill to Xa | a survivos, pasiejo | (t-20,t+20) | (t-20,t-1) | (t-1,t-+1) |
|------------------|----------------------|-------------|------------|------------|
| | | | | |
| Targets: | Cross-Border | 9,22%*** | 6,17%*** | 6,09%*** |
| | | (4,52) | (4,13) | (4,94) |
| | Domestic | 8,02%*** | 4,90%*** | 5,80%*** |
| | | (5,24) | (4,28) | (6,98) |
| | Difference | 1.20% | 1.27% | 0.29% |
| | p-value ¹ | 0.65 | 0.72 | 0.57 |
| Acquirers: | Cross-Border | -0,78% | 1,62% | 1,59% |
| | | (-0,56) | (0,58) | (0,12) |
| | Domestic | 1,11% | 2,14% | 2,11% |
| | | (0,84) | (1,06) | (1,32) |
| | Difference | 1.89% | 0.52% | 0.52% |
| | p-value ¹ | 0.17 | 0.35 | 0.17 |

^{***,**,*} denote statistical significance at the 1%, 5% and 10% level for two-tailed t-test

Source: own calculations.



¹ The reported numbers are p-values of a t-test (allowing for different standart deviations between the two subsamples) of the null hypothesis that the difference betweem the average cumulative abnormal returns in the two subsamples is zero.

Table 6
Differerences in Cumulative Abnormal Returns between Diverifying vs Non-Diversifying M&As

| | Target Firms Average Cumulative Abnormal Returns (-10,10) | Acquiring Firms Average Cumulative Abnormal Returns (-10,10) |
|---|---|--|
| Panel A: Cumulative Abnormal Returns | | |
| Activity Focus | 7,76%*** (2,769) | 1,26%*** (2,819) |
| Activity Diversification Panel B: Differences Between Groups | 7,29% (1,285) | -0,5%* (-1,941) |
| runer B. Binerendes Between Groups | | |
| Activity Focus Versus Activity Diversification | 0,47%** | 1,76%*** |
| p-value ¹ | 0.04 | 0.01 |

^{***, **, *} denote statistical significance at the 1%, 5% and 10% level for two-tailed t-test

Source: own calculations



¹ The reported numbers are p-values of a t-test (allowing for different standart deviations between the two subsamples) of the null hypothesis that the difference betweem the average cumulative abnormal returns in the two sub-samples is zero.



