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ON MERGERS AND ACQUISITIONS IN GREECE - BEFORE AND AFTER THE ONSLAUGHT OF THE ECONOMIC CRISIS

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ABSTRACT

This study examines the impact of mergers and acquisitions (M&As) on the post-merger performance of Greek listed firms using accounting variables (profitability ratios). We examine firm profitability for the first years after M&As and in the long-run (before and after the onslaught of the economic crisis). For the purpose of the study, a set of five profitability ratios is employed for the examination of fifty mergers, in order to measure firms' post-merger performance and to compare pre- and post-merger firm profitability before and after the M&As announcements. To delve deeper, we analyze with nonparametric tests seven qualitative variables as strategic choices of the sample firms in M&As' past decisions: selection of merger or acquisition, hostile takeovers or friendly M&As, legal form and valuation of the target firm, method of payment, decision for an international merger or not and the type of the target's production line. We find these ratios to be statistically insignificant indicating firms do not experience a post-merger improvement in accounting performance the first years after M&As (before the outbreak of the economic crisis in Greece), but there is a partial deterioration of the post-merger performance in the long-run (during the economic crisis). In contrary, regarding the strategic choices during the first years after M&As, we provide evidence that the selection of acquisitions than mergers, as well as hostile takeovers than friendly M&As, affect positively firm profitability. Similar positive effects we have found concerning legal form of the target firm and method of the target valuation. We found no change in other examined strategic choices as method of payment, international merger or not, target's production line. The present study could be useful to several interested parties as a recent empirical result. Firstly, to business executives, consultants or potential investors that want to proceed on a possible investment through mergers or acquisitions in Greece, as several business characteristics for successful business strategies have been proposed. Secondly, for policy makers, tax and other state authorities paints a recent picture for M&As activities in Greece before and after the outbreak of economic crisis.

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INTRODUCTION

The strategy literature commonly argues that mergers and acquisitions (M&As) are one of the mechanisms by which firms gain access to new resources in business sectors and, via resource redeployment, increase revenues and reduce cost. The main hypothesis in successful M&As activities is that potential economic benefits arising from them are changes that increase business performance that would not have been made in the absence of a change in control (Pantelidis et al., 2018).

However, many researchers and business practitioners regard with scepticism this hypothesis, despite the fact that many others are confident and enthusiastic. Diachronically, several studies on economic performance after M&As that employed accounting ratios supported an improvement in the business performance after the M&As action (Mylonidis & Kelnikola, 2005; Agorastos et al., 2011; Rao-Nicholson et al., 2016), while others claimed that there was a deterioration in the post-merger firm performance (Kusewitt, 1985; Dickerson et al., 1997; Sharma & Ho, 2002; Marfo Oduro & Kwaku Agyei, 2013), and some others concluded a "zero" result or ambiguous results from the M&As action (Healy et al., 1992; Chatterjee & Meeks, 1996; Ghosh, 2001; Bhabra & Huang, 2013; Rodionov & Mikhalchuk, 2016).

Hence, it is obvious that after the outbreak of the U.S's crisis in mid 2007 and the debt crisis in Greece in the end of 2009, the reduction of profitability dominated almost in every Greek business section. In 2009, the Greek government resorted to the 'support mechanism', a mechanism which was set up by the International Monetary Fund, the European Union and the European Central Bank (Pazarskis et al., 2018). During the following period, the Greek companies of every size and industry were faced with a multitude of complex financial problems.

Furthermore, several strategic choices of M&As-involved firms referred or suggested at many past studies to be important, as: the method of merger (merger by absorption, merger by consolidation, merger by acquisition), the allocation of merger deal with an international or domestic M&As (Agorastos et al., 2011), the method of payment with cash, stock-for-stock exchange, the type of merger deal as friendly or hostile bid, the type of merged business activities with horizontal, vertical and conglomerate merger (Pantelidis et al., 2018). Or considered to be less important, as: the legal form type of target (e.g. listed or not company, S.A., or Ltd, etc.), the target valuation method.

The purpose of this study is to provide a clear answer to the above research dilemmas with the examination of the accounting performance of merger-involved firms in Greece along with several firms' strategic choices and provide analytically further evidence for the Greek market, a small open economy that face before ten years the effects of global economic crisis and its implementation to a domestic economic crisis. In order to examine the accounting performance of Greek firms after M&As activities, this study proceeds to an analysis of fifty mergers of a sample firms, listed at the Athens Stock Exchange (ASE) in Greece that executed M&As in a five-year-period (and with an analysis of each year of them), using accounting profitability ratios, and attempts to investigate the M&As effects on their performance.

The structure of the paper is as follows: next section is the literature review and the following section the research design (sample, qualitative and quantitative variables, methodology). The next section analyses the results and presents an interpretation of results after the outbreak of the economic crisis in Greece (the long-run perspective of M&As). Finally, the last section concludes the paper.

LITERATURE REVIEW

Many researchers are enthusiastic about the positive merger effects, while some others are sceptic about this approach (Ramaswamy & Waegelein, 2003). Regarding the Greek market, Alexandrakis et al. (2012) argued that Greek mergers in different business industries could lead to a debt increase. Mylonidis & Kelnikola, (2005) and Agorastos et al. (2011) supported an improvement in the corporate performance after M&As. In the beginning of the economic crisis in Greece, Pantelidis et al. (2014) argued that the accounting performance of the acquiring firms in the post-merger period is affected by industry type.

Positive results in the post-merger performance found Rao-Nicholson et al. (2016) that utilizes the company's financial statements to compute ROA and sales margin to examine the post-M&A performance in ASEAN countries using data from 2001 to 2012. They suggest that M&As completed during the financial crisis are more profitable than those implemented before and/or after the crisis due to the synergies created between the firms' resources during the crisis.

On the other hand, negative impact after merger showed the results of Marfo Oduro & Kwaku Agyei (2013) in the Ghana Stock Exchange during the period of 1999-2010. The examined mergers showed significant changes in business profits after merger compared to the respective period before. The negative impact in business profits was measured based on the Return on Assets (ROA) and Return on Equity (ROE) ratios, which slumped significantly. Similar results found Rodionov & Mikhalchuk (2016) studied with an econometric model based on financial statements the valuation of merger synergies in Russian market. They test empirical hypotheses about synergy factors in the period 2006-2014 and, after the examination of their results for synergies of merged companies, found a decline of their performance in crisis periods.

The research conclusion of a 'zero' result found several other researchers. Ahmed & Ahmed (2014) explored the impact after merger on industrial twelve businesses in Pakistan during 2000-2009. They concluded that the merger impact on the return of equity, gross profit margin and net profit post-merger did not improve the businesses' condition. Dhiman & Parray's (2011) research study on a sample of ten constructing companies in India, participating in mergers and acquisitions during the period of 2006-2007, had similar results. Dhiman & Parray's (2011) used financial ratios for three years prior to and post the merger or acquisition event. Most importantly, they did not observe any statistically significant change in business profits. The maintenance of a stabilized partial positive condition after business merger or acquisition showed the research results of Bhabra & Huang (2013), who studied a sample of 136 mergers and acquisitions of Chinese businesses, entering stock exchange during the period of 1997-2007. A main characteristic of mergers and acquisitions is that the target market consists mainly of private or subsidiary businesses of the acquiring one, whereas the state-owned enterprises play a major role in M&As and the payments are performed in cash. M&As were studied with three profitability ratios, in specific the return on assets, return on equities and profit margin ratios.

RESEARCH DESIGN

Sample selection and merger characteristics (qualitative variables)

The final sample consists of fifty acquiring firms, listed in the ASE that executed M&As actions as acquirers in Greece during the period from 1998 to 2002. However, several companies that were in the process of bankruptcy were excluded from the sample. The years of the M&As events with their percentages per year are illustrated in the Table 1.

TABLE 1. NUMBER AND PERCENT OF M&AS BY YEAR

Code	Mergers	%	Acquisitions	%	Full sample	%
SP_5	14	41%	9	39%	20	40%
SP_4	11	31%	4	17%	13	26%
SP_3	5	11%	5	22%	8	16%
SP_2	3	7%	3	13%	5	10%
SP_1	3	7%	2	9%	4	8%
Total	27	100%	23	100%	50	100%

From the following table, it can be seen that M&As events were distributed over the sample years as follows: twenty transactions in the sample were completed in Sub-Period 2002 (SP_5), thirteen in 2001 (SP_4), eight in 2000 (SP_3), five in 1999 (SP_2) and four in 1998 (SP_1). Last, the activities of the sample firms according to ASE category classification are shown in the Table 2.

TABLE 2. PERCENTAGE OF SAMPLE FIRMS ACCORDING TO THE ATHENS EXCHANGE CATEGORY CLASSIFICATION

Category	Number	%
Primary Sector	1	2%
Manufacturing Sector	21	42%
Commerce Sector	7	14%
Transport - Communication Services	3	6%
I.T. - Real Estate - Commerce Services	7	14%
Health - Public Care Services	1	2%
Constructions Sector	6	12%
Other - Transitory Category	4	8%
Total	50	100%

Other merger characteristics of the research sample are (see also, Table 3):
I. Type of merger (E1): 54% of the sample firms performed a merger by absorption (E1-1), none of them a merger by consolidation (E1-2) and 46% of the sample firms involved in a merger by acquisition (E1-3).
II. Legal form of the target firm (E2): 20% of the sample firms have acquired a firm with the legal form of S.A., that were listed at the Athens Stock Exchange-A.S.E. (E2-1), 62% an S.A. not listed at the A.S.E. (E2-2), 6% a Ltd. Company (E2-3), 2% medium Greek size companies (SME), such as 'O.E.', 'E.E.' (E2-4), 8% a business division of another company (E2-5) and 2% acquired anything else than the others ones (E2-6).

III. International or domestic merger (E3): 76% have performed domestic mergers, in Greece (E3-1) and 24% international ones: 10% in Balkans (E3-2), 6% in Western Europe (E3-3) and none of them in Easter Europe (E3-4), 4% in USA (E3-4), and 4% elsewhere (E3-6).
IV. Method of payment (E4): 46% of the sample firms financed their deal with cash (E4-1), 42% with stock-for-stock exchange (E4-2), 8% with a mixture of cash and stock exchange (E4-3) and 4% financed their M&A transaction by other means such as: loan stock, convertible loan stock, etc. (E4-4).
V. Friendly or hostile merger (E5): 96% of the sample firms performed a friendly (amicable) M&A transaction (E5-1) and 4% a hostile one (E5-2).
VI. Method of target valuation (E6): 26% of the sample firms chosen for their target valuation the Discounted Cash Flow Method-D.C.F. (E6-1), 12% the Price Earnings (P/E) capitalization method (Gordon Formula) (E6-2), 20% has preferred the method of net realizable value (net asset value) plus the medium term of discounted profits of estimated goodwill for a five-year period (E6-3), 10% has preferred the method that uses the Greek Committee of Capital Market, in order to evaluate the value of shares of non-listed companies at the A.S.E. (E6-4), 8% has preferred the method of medium term of discounted cash flow for a five-year period (E6-5) and 24% of the sample firms something other or a combination of the above referred methods (E6-6).
VII. Relatedness of the target (difference in the production line): 50% of the sample firms performed a horizontal merger (E7-1), 16% a vertical merger (E7-2), 16% a congeneric merger (E7-3), 14% have performed a conglomerate merger (E7-4) and 4% something other (E7-5).

TABLE 3. MERGER CHARACTERISTICS OF THE SAMPLE FIRMS

Business characteristics	Code	E(*x*)-1	E(*x*)-2	E(*x*)-3	E(*x*)-4	E(*x*)-5	E(*x*)-6	Full sample
Type of merger	E1	27 54%	0 0%	23 46%	-	-	-	50 100%
Legal form of the target firm	E2	10 20%	31 62%	3 6%	1 2%	4 8%	1 2%	50 100%
Location of the target firm	E3	38 76%	5 10%	3 6%	0 0%	2 4%	2 4%	50 100%
Method of payment	E4	23 46%	21 42%	4 8%	2 4%	-	-	50 100%
M&As process (friendly or hostile)	E5	48 96%	2 4%	-	-	-	-	50 100%
Method of target firm's valuation	E6	13 26%	6 12%	10 20%	5 10%	4 8%	12 24%	50 100%
Relatedness of the target firm	E7	25 50%	8 16%	8 16%	7 14%	2 4%	-	50 100%

Note: x = {1,2,3,4,5,6}

These M&As activities of the listed Greek firms have been tracked from their announcements on the web site of the ASE. The data of this study (accounting ratios) are computed from the financial statements of the M&As-involved firms on the web site of the ASE (hand-collected data).

The study proceeds to an analysis only of listed firms as their financial statements are published and it is easy to find them and evaluate from them the firms' performance. The sample of 50 M&As events is very satisfying, comparable to prior studies conducted in significantly larger markets such as US and UK (Sharma & Ho, 2002), with the same or fewer sample firms, as: Healy et al., 1992 : *n* = 50, Clark & Ofek, 1994 : *n* = 38, Manson et al., 1995 : *n* = 38, etc.

Ratios-quantitative variables

The accounting performance of a firm is evaluated with its performance at five profitability ratios. For the purpose of this study, the ratios chosen (VAR_1-VAR_5) for the analysis and evaluation of the above sample are in accordance with the methodologies followed at several previous studies (Sharma & Ho, 2002; Mylonidis & Kelnikola, 2005; Agorastos et al., 2011; Alexandrakis et al., 2012; Marfo Oduro & Kwaku Agyei, 2013; Pantelidis et al., 2014; Rao-Nicholson et al., 2016). The five ratios which employ the accounting measures of earnings and profitability, in relation to total assets, equity and sales are tabulated in the Table 4.

TABLE 4. CLASSIFICATION OF FINANCIAL RATIOS

Variables	Ratios	Ratio Definitions
VAR_1	Gross Margin	Gross profit/ Sales
VAR_2	Net profit margin (before taxes)	Net profit (before taxes) / Sales
VAR_3	Net profit margin (after taxes)	Net profit (after taxes) / Sales
VAR_4	Return On total Assets - ROA (after taxes)	Net profit (after taxes) / Total Assets
VAR_5	Return On Equity - ROE (after taxes)	Net profit (after taxes) / Shareholders funds

Methodology

Firstly, the study examines the performance of involved firms in M&As as acquirers for a four-year period before and after the merger event with ratios and compares the average of these four years. Also, the set of the firms that executed M&As during this period are examined on the whole and cumulatively per year. The merger of each sample firm is considered as an investment that is evaluated by the NPV criterion (if NPV≥0, the investment is accepted). Based on this viewpoint, the study proceeds to its analysis and regards the impact of a merger similar to the impact of any other positive NPV investment of the firm to its ratios over a specific period of time (Healy et al., 1992; Agorastos et al., 2011; Pantelidis et al., 2014; 2018). The year of the merger event is not examined as several factors influence accounting performance for one-time during this year, such as the financial cost of implementing the merger, cost of integrating information systems, etc. (Healy et al., 1992). However, in this study, the mean from the sum of each ratio is computed instead of the median, as this could lead to more accurate research results (Pantelidis et al., 2014; 2018). When trying to ascertain if a merger is beneficial, we follow methodologies of Sharma & Ho (2002), and Pantelidis et al. (2014). The study uses two independent samples' mean t-tests for unequal variances.

Secondly, the study examines the impact of the economic crisis at the sample. Rodionov & Mikhalchuk (2016) that examine financial statements for valuation of synergies in Russian domestic M&A deals in period 2006-2014, found a decline of post-merger performance in crisis periods. In order to illustrate the situation after the outbreak of the economic crisis in Greece the study examines post-merger performance in the long-run similarly as stated above but by adopting a modified approach for data analysis and presentation of Lev & Mandelker (1972), where we compare accounting data (ratios) for four year before the merger event and compare them with ratios after the merger event progressively per year by providing evidence up to twelve years after the M&As for the examined sample firms.

Thirdly, the study tests the relation between the changes in accounting performance of the acquirer after mergers. This is done based on the seven business characteristics by applying a modified methodology of Lev & Mandelker (1972), Ramaswamy & Waegelein (2003), Francis & Martin (2010) and Pantelidis et al. (2018), where the change in accounting performance of the acquirer is measured as the change in a ratio (ΔVAR) from the value after the merger minus the value before the merger. For ΔVAR for each acquirer, we have $\Delta VAR_i = \overline{VAR}_{2i} - \overline{VAR}_{1i}$, where 2 = after and 1 = before merger; $\Delta VARi$ calculates the differences between the means of post- and pre-merger ratios with $i = \{1,2,\ldots,5\}$; $\overline{VAR}_1$ is the mean of pre-merger examined ratios, and $\overline{VAR}_2$ is the mean of post-merger examined ratios. Thus, we analyze the seven merger characteristics by categorizing them in two or more groups according to their different merger characteristics. Because we reject the null hypothesis that the data sample has normal distribution, we use a non parametric Kruskal-Wallis test for each of the seven characteristics (Pazarskis, 2008; Pantelidis et al., 2014; 2018).

RESULTS

Results before the outbreak of the economic crisis

From a set of five profitability ratios (variables from VAR_1 to VAR_5), where is examined the set of the firms that executed M&As during the whole research period, the results revealed that none of all the examined profitability ratios did not change significantly due to the M&As event. Thus, we find evidence before the outbreak of the economic crisis in Greece indicating firms do not experience a post-merger improvement in accounting performance the first years after M&As.

All-in-all, these results are not consistent with the results of some others studies that found a decline of the profitability ratios in the post-merger period: Kusewitt, 1985; Dickerson et al., 1997; Sharma & Ho, 2002; Marfo Oduro & Kwaku Agyei, 2013. Also, these results are consistent with the results of some other past studies, which claimed that there is no relative change of the economic performance at any examined profitability ratios due to M&As activities (Healy et al., 1992; Chatterjee & Meeks, 1996; Ghosh, 2001; Bhabra & Huang, 2013; Rodionov & Mikhalchuk, 2016).

TABLE 5. RESULTS FOR PRE- & POST-MERGER PERIOD (1-4 YEARS)

	Y-4	Y-3	Y-2	Y-1	Y+1	Y+2	Y+3	Y+4
VAR_1	26,9	26,0	25,5	25,0	26,5	25,2	22,9	23,4
VAR_2	16,8	16,0	16,5	12,3	16,8	10,7	9,2	7,2
VAR_3	11,2	10,2	10,3	6,9	15,0	9,8	9,2	7,7
VAR_4	4,2	3,1	1,3	3,9	4,75	3,83	3,41	3,39
VAR_5	4,0	12,8	12	12,2	9,0	7,6	5,7	5,5

*Note: * if p < 0.10; ** if p < 0.05; *** if p < 0.01.*

Impact of the different M&As' characteristics

The received results are presented in the Table 6 and are discussed in brief below:
I. Type of merger: The choice of the type of merger is a very important decision as it describes the perception of the acquirer firm to fully embody in its organization the acquiring firm or not. From the above received results, it is clear that there is a difference from the type of merger (merger by absorption or acquisition) for the acquiring firms of the research sample only at the accounting ratio VAR_4, which presents a better performance for acquirers which selected the acquisitions.
II. Legal form of the target firm: The legal form of the target firm in general reveals the size of the target firm. From the above received results, it is clear that there is a difference at legal form of the target firm (at the choices of to acquire a listed or not listed S.A. company, a Ltd. company, etc.) for the acquiring firms of the research sample at the accounting ratios VAR_3 and VAR_5, which presents a better performance for acquirers that have chosen to acquire a Greek medium size company, a Ltd. company.
III. International or domestic merger: From the above received results, it is clear that there is no difference from the decision of an international or domestic merger for the acquiring firms of the research sample at any accounting ratio. Thus, the result of this study is not consistent with Agorastos et al.'s (2011) study for the importance of international firm's expansion.
IV. Method of payment: According to Jensen's (1986) free cash flow theory, the financing method matters for the post-merger performance of the acquirers. Specifically, debt or cash financed acquisitions would have lower profits than those financed with equity, because the former would raised the costs of debt, hence decreasing profitability. From the above received results, it is clear that there is no difference from the mean of payment (cash or stock exchange) for the acquiring firms of the research sample at any accounting ratio. Thus, the result of this study is not consistent with Jensen's (1986) free cash flow theory that the financing method matters for the post-merger performance and profitability of the present examined acquirers.
V. Friendly or hostile merger: The type of merger deal, if there is a friendly deal or a hostile bid from the acquiring firm, is very important to the firm performance. From the above received results, it is clear that there is difference from the merger deal only at one ratio for the acquiring firms of the research sample: VAR_1, which presents statistically a better performance for the firms that choose a hostile bid than a friendly merger.
VI. Method of target valuation: The choice of the methodology for the target valuation is a very important decision for the acquiring firm. From the above received results, it is clear that there is a difference from the method of target valuation (D.C.F., Gordon

Formula, etc.) for the acquiring firms of the research sample only at the accounting ratio VAR_5, which presents a better performance for acquirers firms that employed the method that uses the Greek Committee of Capital Market, in order to evaluate the value of shares of non-listed companies at the A.S.E.

VII. Production line of the target: The type of merged business activities (horizontal, vertical, congeneric or conglomerate merger) may have an impact on business performance (Pantelidis et al., 2018). From the above received results, it is clear that there is no difference from the type of merged business activities (horizontal, vertical, congeneric or conglomerate merger) for the acquiring firms of the research sample at any accounting ratio.

TABLE 6. RESULTS FOR QUALITATIVE VARIABLES E1-E4

	E1		E2		E3		E4	
ΔVAR_1	*E1-3*	-0,567	*E2-3*	8,333	*E3-5*	15,79	*E4-1*	-1,723
ΔVAR_2	*E1-3*	-5,740	*E2-3*	-0,513	*E3-5*	4,793	*E4-4*	-4,678
ΔVAR_3	*E1-3*	0,645	*E2-3*	2,125*	*E3-6*	12,89	*E4-1*	-0,512
ΔVAR_4	*E1-3*	0,160*	*E2-3*	-0,928	*E3-5*	0,160	*E4-1*	-1,275
ΔVAR_5	*E1-1*	-4,70	*E2-3*	-1,830*	*E3-5*	0,005	*E4-3*	-1,939

TABLE 6 (CONTINUED). RESULTS FOR QUALITATIVE VARIABLES E5-E7

	E5		E6		E7	
ΔVAR_1	*E5-2*	9,559*	*E6-5*	0,875	*E7-1*	-0,567
ΔVAR_2	*E5-1*	-8,951	*E6-4*	2,402	*E7-3*	-7,85
ΔVAR_3	*E5-1*	-1,643	*E6-4*	2,247	*E7-1*	-0,095
ΔVAR_4	*E5-1*	-1,925	*E6-4*	8,277	*E7-4*	-0,487
ΔVAR_5	*E5-2*	-3,178	*E6-4*	6,352*	*E7-4*	1,500

*Note: * if p < 0.10; ** if p < 0.05; *** if p < 0.01.*

Results after the outbreak of the economic crisis

In order to examine M&As after the first years and depicture the impact of the economic crisis at the examined sample, the study examines post-merger performance in the long-run by analyzing accounting data (ratios) for four year before the merger event and further comparing these ratios after the merger event progressively per year by providing evidence up to twelve years after the M&As for the sample firms. From the received results (table 7), the study provides evidence that in a long-run perspective and the outbreak of the economic crisis in Greece there is a deterioration of three out of five profitability ratios (VAR_2-VAR_4).

Similar results found Rodionov & Mikhalchuk (2016) for the Russian market (with a decline) in crisis periods. For the Greek market, Pantelidis et al. (2014) argued M&As in the beginning of the economic crisis had a negative impact on the post-merger performance (especially, on profitability ratios) (Pazarskis et al. 2018).

TABLE 7: RESULTS FOR PRE- & POST-MERGER PERIOD (4-12 YEARS)

	Y+4	Y+5	Y+6	Y+7	Y+8	Y+9	Y+10	Y+11	Y+12
VAR_1	23,4	24,3	25,0	25,6	26,0	26,3	26,3	26,0	25,5
VAR_2	7,2	8,6	7,7	5,2**	4,7**	3,7**	2,5***	1,7***	0,9***
VAR_3	7,7	7,1	9,3	11,3	9,8	8,1	6,5	4,1	-0,1*
VAR_4	3,39	3,26	3,14	2,72	2,22	1,71	1,12	0,41	-0,2*
VAR_5	5,5	5,5	4,7	4,2	1,9	-2,3	-3,3	-3,9	-5,3

*Note: * if $p < 0.10$; ** if $p < 0.05$; *** if $p < 0.01$.*

CONCLUSIONS

The present study examines the accounting performance of Greek listed firms that involved in fifty mergers before the economic crisis years (from 1998 to 2002). The post-merger performance and the impact of the economic situation in Greece before and after the outbreak of the Greek economic crisis are captured by analyzing several profitability ratios of the merger-involved firms.

We find no statistically significant support for either an improvement or deterioration for any of the examined ratios in the post-merger period up to the first four years. This paints a picture that Greek firms undergoing mergers did not experience either business gains or losses after their merger investments. But in the long-run and up to twelve years after M&As, there is general deterioration of the examined profitability ratios, providing evidence for the negative impact on the post-merger performance from M&As in a long-run perspective and certainly due to the outbreak of the economic crisis in Greece.

We also use nonparametric tests to analyze seven qualitative variables that serve as merger characteristics (strategic choices) of the sample firms in M&As' past decisions From them and for the first years after M&As, we provide evidence that the selection of acquisitions than mergers, as well as hostile takeovers than friendly M&As, affect positively several profitability ratios. Similar positive effects we have found concerning legal form of the target firm and method of the target valuation. We found no change in other strategic choices as method of payment, decision of an international merger or not and selection of the target's production line.

In terms of future research, firstly, we propose a similar ratio analysis of unlisted Greek companies so this can be compared to our results that only used listed Greek companies. This comparative investigation could depicture for analytically the impact of the Greek economic crisis in every level of business activity after mergers. Secondly, a comparison with other European companies can be carried out in the manner we have investigated, as this could lead to a better understanding on the extent of the economic crisis on Greek companies in comparison to companies in other countries. Thirdly, by adopting a different methodology as this study with the sample (as neural networks, multi-criteria analysis) may could revealed more significant conclusions. Last, the present study as well as any of the above stated future research could be useful to interested parties (business executives, consultants, official authorities, and potential investors) who want to invest or analyze merger activity in Greece.

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