

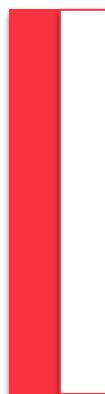
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M&A STRATEGY IMPACT ON THE EUROPEAN INSURANCE INDUSTRY. ASSESSMENT OF DIFFERENT STRATEGIC APPROACHES.

Andrea Coppola

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Andrea Coppola

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Miguel Augusto Gomes Sousa, PhD

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Abstract

The increasing number of mergers and acquisitions affecting the insurance sector worldwide led to the idea of developing a study that was able to understand the new M&A wave in Europe and identify its main drivers, mainly in terms of M&A strategy. In addition, few authors treated this topic in the past and, also, they provided a scarce literature on this subject, with ambiguous results.

These assumptions led to the necessity of a new revised study about the impact of the M&A activity on the insurance companies. So, this dissertation was aimed to describe the effects brought by mergers and acquisitions over the insurance firms that adopted specific strategic approaches in their M&A activity. In the specific, two main strategies were identified, as reported by Cummins et al. (1999): the focus and the conglomeration strategies. Then, other two subcategories within the conglomeration strategy were identified. The first one described the organizations that diversified within the insurance industry, while the other described the organizations that diversified outside the insurance sector.

The study was run throughout the implementation of three main methodologies in order to identify the effects following mergers and acquisitions in the short and long terms and triangulating the conclusions by analysing different points of view, essentially the financial and operational ones. These methodologies comprehended the use of the cumulative average abnormal returns, the buy-and-hold abnormal returns, and the univariate analysis.

The results suggested that the focus strategy generally overperformed the conglomeration one, while within the conglomeration approach the results were ambiguous, avoiding the possibility of assessing which typology of diversification was better for the insurance firms.

Keywords: M&A, insurance industry, short-term performance, long-term performance, financial performance, operational performance, CAAR, BHAR, univariate analysis

JEL-Codes: G14, G22, G34, L25

Sumário

O número crescente de fusões e aquisições que afectam o sector dos seguros a nível mundial levou à ideia de desenvolver um estudo que fosse capaz de compreender a nova vaga de fusões e aquisições na Europa e identificar os seus principais motores, principalmente em termos de estratégia de fusões e aquisições. Além disso, poucos autores trataram este tópico no passado e, também, forneceram uma literatura escassa sobre este assunto, com resultados ambíguos.

Estes pressupostos conduziram à necessidade de um novo estudo revisto sobre o impacto da actividade de M&A nas companhias de seguros. Assim, esta dissertação teve como objectivo descrever os efeitos trazidos pelas fusões e aquisições sobre as empresas de seguros que adoptaram abordagens estratégicas específicas na sua actividade de fusões e aquisições. No específico, foram identificadas duas estratégias principais, como relatado por Cummins et al. (1999): o foco e as estratégias de conglomeração. Em seguida, foram identificadas outras duas subcategorias dentro da estratégia de conglomeração. A primeira descreveu as organizações que diversificaram dentro do sector dos seguros, enquanto a outra descreveu as organizações que diversificaram fora do sector dos seguros.

O estudo foi realizado ao longo da implementação de três metodologias principais, a fim de identificar os efeitos após fusões e aquisições a curto e longo prazo e triangular as conclusões, analisando diferentes pontos de vista, essencialmente os financeiros e operacionais. Estas metodologias compreendiam a utilização da média acumulada de retornos anormais, a compra e retenção de retornos anormais, e a análise univariada.

Os resultados sugeriram que a estratégia de focalização geralmente superou a estratégia de conglomeração, enquanto que dentro da abordagem de conglomeração os resultados foram ambíguos, evitando a possibilidade de avaliar que tipologia de diversificação era melhor para as empresas de seguros.

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1. Introduction

Over the last decades, the interest around the mechanisms behind the relation between M&A activity and insurance sector has been intensifying. Many authors have developed studies and theories regarding how mergers and acquisitions influence or add value to insurance companies' strategy, such as the value creation theory in the consolidation of European insurance firms by Cummins and Weiss (2004), the study around the differences between banking and insurance M&A activity effects by Focarelli and Pozzolo (2008), or the determinants of M&A success in the European insurance industry theory by Altuntas et al. (2016). For instance, the firms involved in M&A activity can benefit from many add-value sources, such as operational and financial synergies, diversification, or tax shields, just to mention some of them.¹

The importance of a deeper research on M&A activity in the insurance sector is amplified by the ceaseless activity in the industry in terms number of deals. Just in 2021, 418 deals were finalised worldwide, while the number was 407 in 2020.² The Americas, especially USA, leaders of this trend, showed an annual increase by 17%, due to a total number of 224 deals. Nevertheless, Europe clearly followed the same path, with a year-on-year (YoY) growth rate of 21% (74 transactions). Additionally, the second half of 2021 the insurance sector saw outstanding dealmaking, including, for example, the acquisition of Prudential's full-service retirement business by Great-West & Annuity Insurance Company for \$3.6 billion, or the acquisition of Cigna's life, accident and supplemental benefits business in Asia Pacific and Turkey by the Swiss Chubb for \$5.8 billion. This M&A wave within the insurance industry is expected to continue even in 2022³, partially driven by the significant technological progress within the insurance business.

Despite the hugeness and economic relevance of this macro topic, just a strict number of authors have treated consistently the influence that mergers and acquisitions can have on the whole insurance industry, and, above all, the studies presented ambiguous results, increasing the uncertainty regarding motives that lead insurance companies to buy or

¹ DePamphilis et al. (2018)

² Source: Clyde&Co. <https://www.clydeco.com/en/about/news/2022/02/global-insurance-m-a-continues-apace-despite-pande>

³ Source: PricewaterhouseCooper (PwC). <https://www.pwc.com/us/en/industries/insurance/library/deals-insights.html>

to sell, and the impact that those transactions have on operational and financial performances. This literature is even scarcer, and mainly attributed to J. David Cummins⁴, when discussing about the two main M&A strategies adopted by insurers: strategic focus and conglomeration.

Even in this latter case, there is a considerable disagreement among the authors regarding which M&A strategy is the best solution for an insurance firm. Essentially there is not still a clear answer about what is more beneficial for an insurer between integrating firms operating in other different lines of business and acquiring firms specialised in the same area of expertise.

Accordingly, referring to a broader finance literature, there are two main different schools of thought regarding the impact of the strategic approach over firm's performances. On one hand, the proponents of the conglomeration hypothesis support the idea that the ownership of a broad range of business lines can raise the total amount of value added for the company. The determinants regarding the application of this kind of strategy can be mainly due to scope economies, as cited, for example, by Teece (1980), Herring and Santomero (1990), Gallo et al. (1996), and Calomiris (1998), financial efficiencies, that were reported by Williamson (1970), and Gertner et al. (1994) or risk diversification, argued by Lewellen (1971), and Winton (1999). On the other hand, the proponents of the strategic focus hypothesis suggest that when a firm focuses on its core business and core competencies, it has more possibilities to maximize its value. According to this approach, a conglomeration strategy could lead to agency problems, as suggested by Amihud and Lev (1981), and Jensen (1999), while Jensen (1999), and Meyer et al. (1992) proposed that a strategic focus application should avoid that problem.

Considering these assumptions, this work is aimed to continue the previous studies around the strategical implications of the M&A activity in the insurance sector with the objective of providing clearer results and filling the gap with the existing literature, that mainly referred to US market and took into account just a short-term horizon. This study is developed referring to the European insurance industry transactions, intended as the deals

⁴ John David Cummins is Risk Management and Insurance Professor at Temple University, formerly Business Economics and Public Policy at Wharton School of the University of Pennsylvania, and formerly president of American Risk and Insurance Association

pursued and concluded by both life and property-liability insurers, meaning the exclusion of insurance brokers and intermediaries, placed in the European countries, with both short- and long- term perspectives.

The following empirical research will provide answers to two main academic questions:

1. Which is the best strategic approach between the strategic focus and the conglomeration hypothesis?
2. Focusing on the conglomeration hypothesis, and assuming two different types of diversification, one within the insurance industry and one outside the several insurance business lines, which solution is the most desirable for insurers?

The results suggested that the focus strategy performed financially and operationally better than the diversification approach, while the assessment within the conglomeration strategy, namely the diversification within the insurance industry and the diversification outside the same sector, brought to ambiguous conclusions, because short- and long-term results appeared contradictory.

The structure of this work is organised as follows, after this introduction. The second section comprehends an overview of the studies developed about the M&A subject and the insurance sector and their interaction, concluding with the assessment of the gap between the existing literature and this dissertation. The third section provides the description of the methodology applied in the analyses, while the fourth section focuses on the data collected for this study. The fifth and sixth strands show the results following respectively the descriptive statistics and the finished analyses. Then, the last chapter reports the conclusion, the limitations, and potential future research related to this dissertation.

2. Theoretical Framework and Literature Review

This chapter has the task of describing the theoretical background and the existing literature around the topic. Indeed, it can be split into two main parts. The first one gives a general theoretical background about the determinants for mergers and acquisitions in terms of motivations, and post-acquisition performances. On the other hand, the second part provides the current results obtained so far regarding the M&A activity in the insurance industry according to the main authors in this subject.

2.1. Motivations for M&A

In accordance with the theoretical teachings, the motivations for mergers and acquisitions play a crucial role in the strategy of the enterprises, because they represent the determinants in the identification and selection of the target companies, their valuation, and in the implementation of the transaction.

DePamphilis et al. (2018) grouped the reasons behind mergers and acquisitions into eight main categories: synergies, diversification, strategic realignment, hubris, and winner's curse, buying undervalued assets, managerialism, tax considerations, market power and misevaluation.

The first group of reasons, defined as synergies, comprehends two main sub-categories: operational synergies and financial synergies. First, the operational synergies refer to the capability of developing economies of scale or scope, and the acquisition of complementary technical assets and skills, helpful for the generation of value for shareholders, in accordance with DeLong (2003)'s findings. In this case, the objective of the acquirer is the achievement of a superior level of operating efficiency and the integration of new innovative sets of skills, through the access to a more developed know-how. On the other hand, financial synergies mainly denote the reduction in the buyer's cost of capital due to the acquisition of the target firms. Generally, this kind of synergies are associated with merged firms that present relatively uncorrelated cash flows, cost savings from lower securities' issuance and transaction costs, or a better matching of investment opportunities with internally generated funds. In addition, Hann et al. (2013) pointed out that the M&A activity involving firms with uncorrelated cash flows usually leads to a reduction in systematic risk, that could be helpful to withstand negative events along the supply chain or the impact of financial distress.

The second category corresponds to the diversification. This occurs when a company pursues the willingness to buy another company that operates in a business different from the one where the acquirer is positioned. Usually, diversification has a dual function. On one hand, it could lead to the creation of financial synergies, and consequently to the reduction of the cost of capital. On the other hand, it can allow the acquirer to shift its core product lines or target markets to ones forecasted to have a higher growth. For instance, a firm could resort to this strategy in order to mitigate a slow-paced in its current market by entering a new risky market characterised by a prompter growth, and then expand its sales. In some other cases, firms proceed through diversification to attempt to increase the sales growth rate by the acquisition of new products that are relatively unfamiliar and then sell them in familiar and less risky current markets. Anyway, Akbulut and Matsusaka (2010) suggested that on average the acquisitions with diversification purpose lead to lower financial returns than non-diversifying acquisitions. Oppositely, other researchers, such as Harding and Rovit (2004), and Megginson et al. (2004), highlighted that the most successful deals in developed countries are those in which the acquirer purchases firms in the same core business because the familiarity with the type of business may carry out managers' ability concerning optimised investment decisions. In addition, Singh and Montgomery (1987) argued that mergers and acquisitions focused on related types of business are more likely to bring higher returns than unrelated ones, due to a higher probability of cost cutting. Regarding this, Lim and Lee (2016) demonstrated that the probabilities of deals success increase when the companies operate in similar or complementary businesses.

The strategical realignment is typical of companies that need to implement rapid adjustments in order to react to the external environmental changes, such as regulatory or technological ones. Mulherin and Boone (2000) demonstrated that, usually, the sectors that were faced with any sort of deregulation were the ones that presented the most intense M&A activity, especially because of an increased competition as a reaction of the breaking down of artificial barriers.

The group made by hubris and "winner's course" subtends the practice of purchasing firms by CEOs and high-ranked managers because of the aim of getting a successful acquisition track record, reputation, and an excess of overconfidence. Some studies carried out by Billett and Qian (2008), and Malmendier and Tate (2008) revealed a negative impact

over the negotiation. In fact, according to these typologies of M&A determinants, usually the acquirers pay higher premia due to the lack of rationality.

The fifth group of determinants, the purchase of undervalued assets, refers to the companies whose objective is the acquisition of other companies in order to own new specific assets. This theory is supported by the use of the Q-ratio. It is the ratio of the acquirer's stock at the market value to the replacement costs of its assets. This could represent an explanation of why M&A activity arises when stock prices go below the book value of the firms.

Regarding the theory of managerialism, Masulis et al. (2007) argued that sometimes managers are more likely to undertake M&A activities when they can lead to improvements in the sphere of reputation. Of course, they would bring many kinds of benefits, such as increasing influence power, salary improvements, or self-preservation. Usually, this is more likely to happen when firms are led by young CEOs. They can give rise to agency problems, considering the different interests of managers and shareholders. In this regard, Yim (2013) suggested that young CEOs have strong incentives in carrying out mergers and acquisitions in the early stage of their careers, because usually acquisitions are strongly linked to large increase in compensation.

In many cases, tax impact is a strong feature in the corporate strategy implementation. DePamphilis (2018) outlined acquirers may benefit from targets' accumulated losses and tax credits to offset future profits generated by the combined firms. Furthermore, the taxable nature of the deals may define when a merger can occur, as a pre-requisite for the seller to accept the transaction. Some mergers can also happen due to the exploitation of tax benefits, especially when the acquirer is placed in high-tax countries and the target in more favourable taxed regions.

Another category of motivations responsible for mergers and acquisitions is given by the achievement of market power. Market power motivational theory shows that sometimes firms are involved in M&A because of the need for setting product prices at levels that are not sustainable in a more competitive market. By the way, some studies demonstrated that M&A activity is more likely to lead to efficiency improvements than to an increase in market power, but a high concentration may push companies to set lower prices, as reported by Bhattacharyya and Nain (2011).

Finally, regarding the last group of motivations, Edmans et al. (2012) argued that misevaluation is usually due to the imperfect information situation typical when the valuation of the companies and assets is a function of the market. Consequently, it is not unusual that the market undervalues firms' shares, so those see their prices increasing as soon as the investors begin to value them properly, in accordance with the achievement of new and more accurate information. Therefore, assuming this last reasoning, usually the acquirers benefit from the acquisition of undervalued firms or assets for cash because they pay a value below their true value. Instead, according to Ang and Cheng (2006), and Dong et al. (2006), if the buyers purchase the targets through equity, they may benefit from using their overvalued equity as exchange currency, obtaining proportionally more target's equity, or trading less their own shares for the payment. Anyway, Petmezas (2009), and Akbulut (2013) found out that generally the misevaluation has that positive effect on acquirers' shares just in a short-term horizon because these tend to decrease in value as the shareholders' enthusiasm vanishes as a consequence of synergies effects that do not meet the expectations.

2.2. M&A Performance Assessment

The theory about mergers and acquisitions matter suggests that there are several different perspectives that act as drivers in the pursue of the transactions. Sudarsanam (2004)'s findings demonstrated that the economic and strategy perspectives propose that M&A is usually driven by the willingness to achieve competitive advantages wanted to generate value for the shareholders. The finance perspective highlights that the shareholders wealth maximization is the primary objective involved in the transaction achievement. Although, this does not take into consideration some collateral aspects, such as principal-agent problems, weak corporate structures, or imperfect market issues. Instead, the management perspective concerns the alignment between management and shareholders objectives. Of course, this may bring out agency model issues. Clearly, all these different interpretations of the M&A activity may collide and therefore the assessment of when a deal is successful or not depends on which perspective is adopted. Consequently, the definition of the success criteria, the measurement tools and benchmarks play a crucial role in the proper M&A evaluation.

By the way, Meglio and Risberg (2011) depicted a lack of consensus on how M&A performances are assessed, even if the quantitative model seems to be the most used approach in this discipline. Assuming a sort of scheme for the classification of mergers and

acquisitions assessment methods, mainly due to the contribution of Carton and Hofer (2006) and Venkatraman and Ramanujam (1986), there are two main domains of measures. The first one is the financial domain. It comprehends the market and accounting measures of performance. Market performance measures, such as CAAR (Cumulative Average Abnormal Returns), or the Jensen's Alpha or Beta, can be applied just if the companies are public, because they mirror how these are evaluated by the market on the announcement day, or the systematic risk associated they are faced with. Instead, accounting performance measures take highlight several features of the business condition through the analysis of companies' financial information records. They can show the profit dimension, through the ROA (Return on Assets), the ROS (Return on Sales) or the net income, the growth dimension, for example using the sales growth rate, and the liquidity and leverage dimension, measure by cash flows, for instance. Oppositely, the non-financial domain is split between the operational and overall performances. The former accounts for marketing, innovation, and productivity dimensions, respectively measured by market share, number of patents, and cost synergies. The latter, on the other hand, assesses if the company has achieved its objectives and it is able to survive. Usually, this type of performance measures can be represented by the degree of attainment of M&A goals, or by the divestitures made in a given time interval.

Even taking into consideration the numerous possible methods for the M&A performance assessment, Meglio and Risberg (2011)'s findings suggested that the market-based or the accounting-based measures are the most common among scholars because of their presumed objectivity and their relative simplicity in recording and collecting. Actually, a single variable for the assessment of the performance in the case of mergers and acquisitions is strongly discouraged. This is because each method shed light on different features and cannot depict a full perspective on the success of a transaction. Consequently, the use of different approaches can represent a wise strategy in order to obtain a broader picture of post-acquisition results.

Even Zollo and Meier (2008) examined the concept of acquisition performance. They asserted that there are at least three different levels of analysis that should be considered, as well as two separated time horizons, the short- and long-terms, for each level of analysis. Everyone of these takes into consideration different aspects of the merge or acquisition. The task level, for instance, is defined as *"the degree to which the targeted level of integration between the two organizations has been achieved across all of its task dimensions in a satisfactory manner"*. It refers to

the ability of the acquiror to meet the expectations prior to the deal. Rather, the transaction level is expressed as *“the amount of value, in cost efficiencies and revenue growth, generated by the complete transaction process”*. Finally, the firm level is *“the variation in firm performance that occurred during the period of relevance for the execution of the business plan connected to the acquisition”*. Regarding the last two levels of analysis, they found out a correlation between them and short-term window event and long-term accounting/financial metrics. In focus, the long-term accounting and financial measure are strongly correlated to the transaction level of the M&A performance analysis, while the short-term window event is more likely to be linked to the firm level.

Anyway, Zollo and Meier (2008) underlined that the latter needs to be treated more carefully, because it is the most adopted in the mergers and acquisitions performance assessment. The relationship between short-term and long-term abnormal returns has not reached a homogeneous consensus among scholars yet. In addition, short-term window event is fairly criticized for its inconsistency with actual M&A performances. Oppositely, Harrison et al. (2005) argued that it seems to be affected by collective cognitive heuristic, since it is more likely to reflect the market sentiment regarding how the transaction should perform. Logically, financial markets have not enough information and the capabilities to forecast the future of a deal just with the knowledge available during the announcement date. Therefore, the suggestion is to combine the short-term window event with the long-term one, or, even better, to triangulate the former with the objective performance metrics available. In conclusion, the message is even in this case that independent variable cannot describe properly whether an acquisition performs better or worse than expected because it shows just a small portion of the results and it hides not less important features, that can be captured just by using other different measures. Joining multiple metrics should theoretically reduce the inconsistency of the valuation and make it more omni-comprehensive and objective.

2.3. M&A in the Insurance Industry

Despite the scarcity of literature regarding the impact of mergers and acquisitions over the insurance industry, some few authors and scholars described the results of such activities on the insurance companies involved taking into account several points of view.

In 1998, Cummins et al. examined the relationship between mergers and acquisitions, efficiency, and scale economies in the US life insurance sector during the period 1984-1994. Traditionally, the industry was characterised by high-cost distribution system and lack of

price competition. Even though, insurers were increasingly faced with more intensive competition from non-traditional players, such as banks, mutual funds, and investment advisory firms. Considering that such a competition narrowed profit margins, insurance companies started looking for ways to reduce costs, while more severe solvency standards increased pressure on insurers in order to improve financial statements. In addition, the technological progress, adopted in the systems for sales, pricing, underwriting, and policyholder services, pushed insurers to innovate, leading to an increase in the fixed costs and affecting the minimum efficient scale in the industry. Consequently, the opportunity of gaining economies of scale and increased efficiency played a critical role in the need for M&As within the industry. The study highlighted that the efficiency for life insurers represented around 80% of industry assets, assuming a sample of 750 firms during the period 1988-1995. The results provided strong evidence that target firms, once acquired, could achieve improvements in technical, cost, and revenue efficiency, higher than non-M&A firms, suggesting that the M&A activity within the sector, mirroring a restructuring of the life insurance industry, led to an overall augment in efficiency. In addition, they demonstrated that firms characterised by non-decreasing returns to scale were deeply more likely to be acquired rather than firms that presented decreasing returns to scale, suggesting that insurers had acted rationally by avoiding buying firms too large for their capabilities. They also provided some evidence about the high probability of acquisition of more vulnerable companies than financially stronger ones. Thus, regulation seemed to represent a driver in the consolidation of life insurance corporations. By the way, even if insurers efficiency is generally positively related to the probability of M&As, they suggested that the acquirors believe that targets' potential in the product market is more important than cost or technical efficiency, probably because it is easier to make post-acquisitions internal improvements rather than to generate a competitive advantage in creating value. Overall, they showed that M&A activity in the life insurance sector appeared to be driven the most by economically viable objectives and to had pushed up the efficient frontier in the industry.

Berger et al. (1999) also provided an explanation about the kind of acquisition strategy in the insurance sector. They explained that, because of the particular type of regulation that characterises the insurance industry, insurers can opt to provide life or/and property-liability (P-L) services. Consequently, two opposite approaches could be adopted. The first one is the conglomeration, mirroring when a company owns and operates a broad range of businesses. The reasons are the potential generation of added value from exploiting

cost scope economies due to inputs sharing in joint production, revenue scope economies by offering a “one-stop shopping” to consumer, financial efficiency thanks to the creation of internal capital markets, or risk diversification. The other approach is the called strategic focus. It refers to the maximization of value by focusing on core business and core competencies, and reducing agency problems, usually linked to the conglomeration approach. It would explain why some insurers tend to execute M&A within the same product line, while others tend to proceed with mergers and acquisitions including a wider range of types of insurers in order to offer all the products. The authors showed that a sort of conflict between these two kinds of strategies was evident in the insurance industry. So, some insurers had pursued the conglomeration policy, reflected in M&A activities aimed to growth and diversification. Instead, other insurers adopted a “back to basic” strategy, focusing on their core businesses and spinning off other ones. In the history of the industry, each model represented alternating the dominating one. Anyway, despite the pace of M&A and spinoff activities, many large and successful insurance firms adopt both the conglomerate and strategic focus approaches. The authors concluded highlighting that both joint production and specialization may be approximately equally efficient, the kind of strategy depends on the firm, but it may also be imposed by market imperfections.

Okura and Yanase (2013) pointed out that mergers and acquisitions in the insurance sector could be attributed to many factors, such as changes in risk and interest rates, market saturation, technological developments, insurance premiums deregulations, and economic environmental forces. According to Farny (2011), Solvency II (EU solvency standards), IFRS 4, and the EU Third Generation Insurance Directives (1994) have pushed up the number of transactions across national boundaries, due to the deregulation of the European insurance market. Considering the low-yield environment, European life insurance companies with long-term liabilities and a significant amount of guaranteed return products may be exposed to risk. Consequently, it is difficult for insurers being able to maintain a reasonable level of profitability and to meet the obligations towards policyholders. In addition, new entrants, especially technology-focused start-ups, posed strong competitive pressure, above all in terms of product pricing and cost efficiency. All these factors led incumbents to adopt M&A strategies. Theoretically, they should affect net cash flows streaming from synergies, based on economies of scale and scope, and lower riskiness, based on diversification, according to Cummins and Weiss (2004)’s findings. While most of the studies around that topic focused on target firms in order to explain what is behind M&A activity in the insurance industry,

Jakubik and Zafeiris (2018) analysed its impact over acquirors. They pointed out that insurers continue engaging in M&A activity, especially where there is a low-yield environment, even if the studies showed current neutral to negative results for the acquirors. So, European insurance acquirors do not gain significant abnormal returns, in both cross-border and domestic consolidation activities and diversification and strategic focus M&As. For instance, conglomerations led to increasing costs due to less efficient business subsidiaries, mirroring a sort of diversification penalty. This meant that M&As were aimed to lower transaction costs and boost organic growth.

Rubio-Misas and Cummins (2019), referring to the Spanish insurance market during the period 2000-2012, investigated the motives for M&A activity within the industry, revealing that they were allocative and scale efficiencies. Results also showed that composite firms, that provide both life and non-life products, are more prone to acquire other companies than life specialist firms. Always considering the buyer side, they explained that insurers characterised by constant or increasing returns are more likely to be acquirors, revealing that in the case of life insurers the main reason is the potential creation of scale economies. On the seller side, they supported the inefficient management hypothesis and corporate control theory. Furthermore, insurers that are less profitable, considering the coefficient of ROE variable, are more likely to be takeover targets. In addition, studies highlighted that the probability of being a target is positive related to greater premiums growth. So, insurers that experienced a high growth demonstrated to be more attractive targets, because of potential gains due to larger management improvements, favoured by expanding markets. They have also found some evidence on the importance of the type of ownership and business model over the possibilities of M&A involvement. Finally, this analysis exacerbated the influence of agency problems as a determinant for M&A activity, while confirming the value-enhancing theory.

2.4. Literature Gap

While there is a large body of studies around theoretical and applied M&A activity, also considering the strategic implications that it carries out, the number of sources on M&A activity in the insurance industry is relatively low, even if it is increasing, and the number of authors that treated the topic is critically limited.

The current literature has exhaustively described the many reasons that justify the need for mergers and acquisitions in the financial services industry, especially in the insurance

one, as a response to the several changes it was faced with, that deconstructed the way firms acted within it. Almost all the authors agree with the value creation theory as the main determinant for mergers and acquisitions in the industry. They mostly focused on the seller side, identifying which targets firms were more likely to be acquired. So, a series of explanations were elaborated, finding in the economies of scale and scope or risk reduction the main sources of value enhancement in order to push an insurance firm on being on sale. The authors found evidence on the qualities of the target firms as a determinant for M&A too, identifying the returns as an indicator of when firms are more probable to be bought by competitors. This is basically aligned with the idea that the aim of the acquirors is to enlarge their market.

Instead, on the buyer side the sources are fewer. Some studies focused on the comparison of the two main approaches adopted by buyers, identifying them into the conglomeration and the strategic focus. However, they did not give an exhaustive answer to which one is the dominant approach, because too many dimensions influence their adoption. Other studies focused on the reasons why insurers proceed with M&As. Basically, even in this case, returns, diversification and efficiency features seemed to be the main drivers for mergers and acquisitions.

All the studies focused on the short-term results to explain the relationship between M&A activity and insurance industry. The current literature definitely lacks, even if it is always increasing in the recent years, a deep study around the impact and the assessment of strategies involving M&A activity on the insurance industry and insurance companies both in the short- and long-term, focusing on acquirors' financial and operational results. Answers around the quality of the kinds of strategy are still missing. It assumes even more importance if authors' evidence about post-acquisition negative returns for the acquirors are accepted. In addition, many of the studies reported were provided decades ago. So, a more recent analysis is needed in order to confirm them or assert their obsolescence. A more recent literature might be used as a new fresh base for further studies on this topic.

3. Methodology

According to the existing literature, there are different ways for the performance assessment of mergers and acquisitions over buyer companies. This work is going to take into consideration the financial domain of measures. Specifically, the market-based and the accounting-based assessments are going to be the main types of measures adopted for this analysis, in order to triangulate the results and make the evidence more consistent. So, the analysis is going to assess firstly the impact of the M&As on the shareholders' wealth through an event study that computes the CAAR (Cumulative Average Abnormal Return) around the announcement day. Secondly, the long-term impact on the acquirors is going to be tested through another event study, namely the BHAR (Buy-and-Hold Abnormal Returns), and a univariate analysis based on accounting performances.

3.1. Short-Term Performance

The assessment of mergers and acquisitions short-term performance is usually tasked to financial domain measures, according to the scholars. In particular, Zollo and Meier (2008) asserted that the market-based measures seem to better capture a reliable M&A performance valuation. The theoretical best approach in this case is the event study methodology. This should depict the returns gained by the investors during the time around the announcement day, according to Zakaria and Kamaludin (2018).

Given the assumption that efficient markets can mirror all the available information about enterprises through their stock prices, the event study permits to analyse how deep is the impact of a specific event on a firm's performance by quantifying the influence of that event over the company's stock. The most common way of implementation of this kind of study is mainly focused on stock returns, but there are even more infrequent forms that include, for example, trading volumes and volatilities.

Specifically, returns event study quantifies the economic impact of an event, in this case a merger or an acquisition, through abnormal returns. These are computed by deducting the so-called normal returns, meaning the returns that would have been obtained if the event would not have happened, from the actual stock returns. Although the actual returns can be empirically provided, the normal returns must be estimated. That is why the event study methodology is based on the use of expected return models.

Consequently, the first analysis of this work implements the most used expected return model, as the aforementioned authors suggested, namely the market model. It essentially uses the actual returns of the reference market and the correlation between firms' stock and reference market to infer the expected returns.

3.1.1. Cumulative Average Abnormal Return

According to Fama, Fisher, Jensen, and Roll (1969), the traditional event study methodology should involve the use of cumulative average abnormal returns (CAARs).

The first stage of this type of analysis, as for any other general event study, is the setting of event timeline schema, as in *Figure 1*. It implies three timeline assumptions: the event date, the event window, and the estimation window. In this case, the event date is the announcement day, while the event window comprehends 7 days, standing for the 3 days before the announcement day and 3 days after this, referred with the annotation [-3; +3]. Finally, the estimation window, essential for the estimation of the expected returns, is formed by the 30 days before the event window, namely [-33; -4].

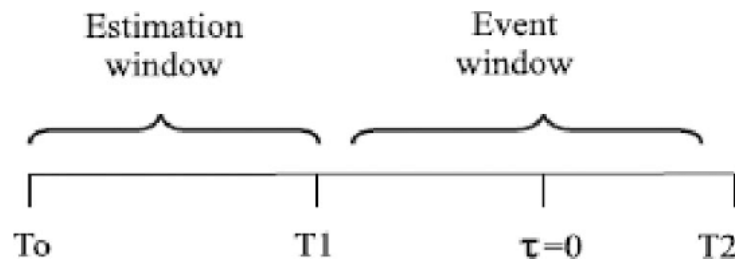


Figure 1 - Event study general timeline schema. Source: ResearchGate

The first step after the introductive conceptualization stage is the calculation of the daily abnormal returns (ARs) for every company during the days surrounding the announcement day. The daily abnormal returns can be reached through several benchmarks, such as the market model, net-of-market return, net-of-characteristic matched portfolio, or an equilibrium asset pricing model (e.g. CAPM).

In this study the expected returns are estimated using the market model. They are compared with the actual returns in order to find out the daily abnormal returns. So, in accordance with the market model, the return on the market at time t is the only determinant of the return on stock i at time t , as in the equation 3.1.

$$E(R_{i,t}) = \alpha_i + \beta_i \cdot E(R_{M,t}) \quad (3.1)$$

where:

$E(R_{i,t})$ – expected return of acquiror's stock i at time t ;

α_i – intercept and measure of the average return of acquiror's stock i not explained by the market return at time t ;

β_i – parameter for sensibility of the volatility of acquiror's stock i towards the market volatility;

$E(R_{M,t})$ – actual reference market's return at time t .

The parameters α_i and β_i are obtained through Ordinary Least Square (OLS) regression, assuming an estimation window of 30 days before the event window.

This market model can predict what is the return on stocks in normal condition. Consequently, the daily abnormal return can be calculated as the difference between the actual and the expected returns for each firm during the event window $[-3; +3]$ (3.2).

$$AR_{i,t} = R_{i,t} - E(R_{i,t}) \quad (3.2)$$

where:

$AR_{i,t}$ – abnormal return of acquiror's stock i at time t ;

$R_{i,t}$ – Actual return on stock i at time t .

The second step is the calculation of the daily average abnormal return (AAR) during the event window. Then, the aggregation of all the abnormal returns for all the N stocks at each time t is computed to find out the average abnormal returns, avoiding idiosyncrasies in measurement (3.3).

$$AAR_t = \frac{1}{N} \sum_{i=1}^N AR_{i,t} \quad (3.3)$$

where:

AAR_t – average abnormal return at time t ;

N – number of transactions in the sample.

The last step is the sum of the average abnormal returns over the T days in the event window and the achievement of the cumulative average abnormal return (CAAR) (3.4).

$$CAAR_t = \sum_{t=1}^T AAR_t \quad (3.4)$$

where:

$CAAR_t$ – cumulative abnormal return at time t ;

T – number of days within the event window.

In conclusion, the statistical significance of the cumulative average abnormal return (CAAR) is tested by calculating a parametric test-statistics for the $CAAR_t$, as suggested by Brown and Warner (1985) (3.5).

$$t_{CAAR} = \frac{CAAR_t}{\sigma(AAR_t)/\sqrt{N}} \quad (3.5)$$

where:

$\sigma(AAR_t)$ – standard deviation of daily average abnormal return.

Additionally, the parametric test is supported by a supplementary non-parametric test (3.6). In this case, the non-parametric test that fits the most with the previous Student's t-test, is the Wilcoxon signed-rank test. This test is helpful for a better interpretation of the t-test's findings, in accordance with Wilcoxon (1945)'s research. As a non-parametric test, it is less demanding, because the normal distribution assumption is not required. It also provides robust results, as it is not affected by outliers. Concluding it is a powerful tool for testing the null hypothesis ($H_0: median = 0$).

$$z = \frac{W_1 - \mu_{W_1}}{\sigma_{W_1}} \quad (3.6)$$

where:

$$W_1 = \sum_i^N R_i;$$

$$\mu_{W_1} = \frac{N(N+1)}{4};$$

$$\sigma_{W_1} = \sqrt{\frac{N(N+1)(2N+1)}{24}},$$

z – Wilcoxon signed-rank test statistics;

$\sum_i^N R_i$ – sum of ranks for the sample;

N – number of observations i .

3.2. Long-Term Performance

The long-term analysis has the objective of reducing the uncertainty regarding the short-term analysis and make the CAAR the most possible unbiased. That should theoretically be possible through a sort of triangulation with long-term performance measures. This study is going to adopt two methodologies. The first is another event study but implemented with a long-run horizon. Even if Zollo et al. (2008) suggested a lack of general consensus around the correlation between short and long-term event study, probably even due to the criticism brought by Fama (1998) regarding this methodology compared to the CAAR's one, other scholars, such as Barber and Lyon (1997), and Lyon et al. (1999) argued that it could potentially capture better the wealth generated for the investors, especially through the use of the buy-and-hold abnormal return (BHAR) methodology, because it should precisely measure the investors experience. This is due to the difference in the valuation method, because the CAAR methodology exploits the arithmetic returns, while the BHAR is given through geometric returns. In addition, just the CAAR methodology suffers the high risk of being inconsistent given the short-time horizon of analysis and the objective of this work. Therefore, the BHAR methodology plus the short-term methodology are aimed to give a full perspective on the buy-side performance results regarding the transaction.

On the other hand, as many scholars argued, for example Zollo et al. (2008), and Meglio and Risberg (2011), the simple use of only market measures can be misleading considering the volatile nature of the same capital markets, that are subjected to fluctuations due to investors' sentiment in specific time windows. That is the reason why an assessment based on operating performance is needed. This is aimed to provide another point of view on the performance outcomes linked to acquirors' M&A activity. This alternative methodology uses accounting data as a measure for the assessment of the success or failure of a deal. In practical terms, accounting data of the buyer before and after the transaction

moment are compared in order to highlight the M&A performance, mirroring its impact on the acquiror's accounting results, such as cost or revenue efficiencies.

The specific accounting measure used in this study for the assessment of the operational performance represent the ones able to capture the insurance company's profitability. Taking into account the characteristics of this specific type of firms and the deep differences between insurance financial statements and commercial ones, respectively around their structures, labels and regulation, the best measures in this matter are the return on asset (ROA), the Combined Ratio and the Risk Retention, because they can depict the insurers' performance through different points of view. Assuming that, the time horizon comprehends three years (year 1, 2 and 3) after the purchase year (year 0), while the starting point is going to be the year before (year -1) the deal year. Rather, the year 0 cannot be considered as during that year company's accounting performance could be affected by multiple factors related to the deal's implementation, such as the business integration or other types of operating issues and ruin the significance of the analysis.

Finally, this last analysis assesses firstly throughout a univariate analysis the performance evolution of the companies included in the sample. Then, in a second moment, the differences detected between the different groups analysed will provide useful results for the impact tracking of the adopted M&A strategy over acquirors' operational or profitability performances.

3.2.1. Buy-and-Hold Abnormal Return

Buy-and-hold refers to the investment strategy typical of the investors that purchase stocks and hold them for a long-run horizon.

The buy-and-hold abnormal return (BHAR) is one of the two main methodologies frequently used by scholars for investigating long-term stock returns due to major corporate events.⁵ The BHAR basically mirrors the difference between the long-term holding period return of the sample of acquirors and the one of the benchmark assets. In other words, it is computed by calculating the abnormal return as the difference between actual buy-and-hold returns and normal buy-and-hold returns.

⁵ The alternative approach is the calendar time portfolio (CTP)

The consensus regarding this specific methodology is fairly ambiguous because many scholars, including Ritter (1991), Mitchell and Stafford (2000), Barber and Lyon (1997), and Lyon et al. (1999), suggested that is the best solution for stock long-term analysis, while others, such as Fama (1998), and Jegadeesh and Karceski (2009), argued against because of statistical problems and its unfeasibility to portfolio strategy, in accordance with Eckbo et al. (2000)' findings. By the way, many recent studies, like Dutta A. and Dutta P. (2015)'s ones, demonstrated that BHAR approach has a lower number of potential pitfalls compared to that of CTP approach.

This study is aimed to calculate the 3-years BHAR for every acquirors in the sample. So, the event window in this case is a 3 years' time horizon, or more precisely a 36 months' span [+1; +36]. Finally. BHAR for event firm i is defined as in equation 3.7.

$$BHAR_{i,T} = \prod_{t=1}^T (1 + R_{i,t}) - \prod_{t=1}^T (1 + E(R_{i,t})) \quad (3.7)$$

where:

$BHAR_{i,T}$ – buy-and-hold abnormal return at month T ;

T – trading months (1-36);

$R_{i,t}$ - return on event firm i at time t ;

$E(R_{i,t})$ – expected return of the stock i during the same period t .

The expected returns are estimated in a way similar to the previous event study, implementing even now the market model. This approach is aimed to base the calculation of the expected returns on the 6 months previous the event date, on monthly base [-6; -1].

The average BHAR during the period T is essentially the arithmetic mean abnormal return on all the transaction within the sample (3.8).

$$\overline{BHAR}_T = \frac{1}{N} \sum_{i=1}^N BHAR_{i,T} \quad (3.8)$$

where:

$\overline{BHAR}_T$ – average BHAR for the period T ;

N – number of transactions in the sample.

The null hypothesis, meaning that BHAR is equal to 0, is tested through a parametric t-statistic, as in equation 3.9.

$$t_{BHAR} = \frac{\overline{BHAR}}{\sigma(BHAR_T)/\sqrt{N}} \quad (3.9)$$

where:

$\sigma(BHAR_T)$ – standard deviation of the buy-and-hold abnormal return.

Then, the null hypothesis is tested even by a non-parametric test, as for the cumulative average abnormal returns event study. Specifically, even in this situation, the test implemented coincides with the Wilcoxon signed-rank test (3.6).

3.2.2. Univariate Analysis

The accounting-based performance analysis implemented in this work is mainly based on a univariate analysis that is needed to assess how operational performance variables changed from the year before the deal to the 3-years span after the deal. This analysis is computed through the formula 3.10⁶.

$$\frac{x_i^{t+j} - x_i^{t-1}}{x_i^{t-1}} \quad (3.10)$$

where:

x – operational performance variable;

i – analysis target firm (acquiror);

t – deal year (year 0);

$t - 1$ – year before the deal (year -1);

$t + j$ – number of years after the deal year (year 1, 2 and 3).

Regarding the variables, this study deploys some general variables, available for every kind of company's nature, while other more industry specific variables are taken into

⁶ This formula is applicable just for the main variables taken into consideration for this study, namely total assets, profit after tax, gross written premiums, net written premiums, and underwriting expenses, as reported below. So, this formula is not going to use the main measures (ROA, Combined Ratio, and Risk Retention) as a base to produce results.

consideration because of the specific nature of the insurance industry. The most common variables are represented by the total asset and the profit after tax. Rather, more distinctive variables used in this study are given by the gross written premium, the net written premium, and the underwriting expenses. Consequently, the choice of the operational performance measures has fallen on the use of the Return on Asset (ROA), the Combined Ratio, and the Risk Retention ratio, shown respectively by the equations 3.11⁷, 3.12 and 3.13.

$$ROA = \frac{\textit{Profit After Tax}}{\textit{Total Asset}} \quad (3.11)$$

$$\textit{Combined Ratio} = \frac{\textit{Underwriting Expenses}}{\textit{Net Written Premium}} \quad (3.12)$$

$$\textit{Risk Retention} = \frac{\textit{Net Written Premium}}{\textit{Gross Written Premium}} \quad (3.13)$$

These three ratios are among the most used ratios in the insurance sector for the assessment of the operations profitability. The Return on Asset (ROA) is a very common ratio for depicting the size of returns generated by the studied companies in relation to their total assets. The Combined Ratio embeds both the Loss Ratio and the Expense Ratio, and it is the measure of the underwriting profitability of an insurance firm after factoring claims expenses and operating expenses of the insurer. Generally, a good Combined Ratio is usually below 100%, because in that case it would mean that the insurer is gaining underwriting profit, while above 100% means that the insurer is paying an amount of claims greater than the amount of premium received. By the way, it is commonly recognised by practitioners as a good measure able to summarise revenue and cost efficiencies simultaneously. Finally, the Risk Retention expresses the level of risk retained by the insurer that cedes to reinsurers. Assuming the crucial role of reinsurers in the insurance industry, this ratio is a widely used

⁷ Usually, the ROA formula is expressed as the ratio between EBITDA and Total Asset (ROA=EBITDA/Total Asset), but it is not applicable for insurance companies. Indeed, insurance organizations are regulated by different accounting principles and schemas, compared to commercial enterprises. Regarding the EBITDA, this does not exist in the insurance accounting system, while online sources reported that the ROA formula used is considered generally right in this situation (see, for example, CARE Ratings Ltd.' financial ratios reports).

measure by insurance expertise for the assessment of the insurer's profitability, because it shows if the premium is proportional to the risk. Recently the OECD revealed that the average risk retention is around 85%.

Then, the ratios reported above (ROA, Combined Ratio, and Risk Retention) are estimated as percentage points of change through the formula 3.14.

$$y_i^{t+j} - y_i^{t-1} \quad (3.14)$$

where:

y – performance measure ratio (ROA, Combined Ratio, or Risk Retention).

The null hypothesis (average difference in measures equal to 0) is tested through a parametric t-test, and, in the end, even throughout a non-parametric test (Wilcoxon signed-rank test), as in the previous analyses.

4. Data Collection

For this study a sample of 228 completed deals was collected, occurred between 2010 and 2020. All the data related to those deals has been reached through Zephyr database, part of Bureau Van Dijk group, a well-known databased widely used by practitioners for its reliability, as it includes all the deals incurred in the world. In accordance with the objective of this work, namely a study around the impact of M&A activity over acquirors, just mergers and acquisitions in which the buyer was an insurance firm were taken into account. This was possible through the industry identification codes provided for each company. In this specific situation, the industry identification codes classification used is the NAICS 2017. The primary code employed for the identification of the buyer companies as insurance companies is 5241 – Insurance carriers. This comprehends even other subcodes, specific for the different branches that compose the insurance sector. The subgroups gathered by the NAICS 2017 code 5241 represent the main subdivisions of the sector:

- 52411 - Direct life, health, and medical insurance carriers;
- 52412 - Direct insurance (except life, health and medical) carriers;
- 52413 - Reinsurance carriers.

Other groups within the insurance sector, such as the codes 52421 - Insurance agencies and brokerages, and 52422 - Other insurance related activities, were excluded from the computation of the sample because they represent groups of intermediaries that act in function of the insurance carriers, connecting people and other firms (outside the insurance industry), the final clients, and the insurance carrier companies. Consequently, given the specific focus assumed by this dissertation, the research could just imply the enterprises under the code 5241 and its subcodes, as other groups of players within the insurance sector, previously named, must be considered as independent with a separated market and industry focus.

Other research criteria used in this work are the geographical location and the status of the acquirors. The buyers should be based in Europe, both Western and Eastern Europe, and listed. The need for European firms is due to the aim of focusing this study on the European market, especially because there are very few papers regarding this specific market and industry. Rather, the need for listed companies was dictated by an easier way to get access to financial data and accounting documents.

Other two additional screening processes were applied. Firstly, the sample should be reduced in terms of deal announcement and completion period, because the data necessary for running the analysis should report at least one year before the acquisition event, and three years after that moment. The result was that the sample's span currently covers the time period 2012-2018, as accounting data before 2011 are rarely available and the last fiscal year available in most of the cases is 2021. By this way, it was assured that time horizon criteria could be respected. All the companies could have accounting and financial data available for at least one year before the deal and three after then. Secondly, some of the firms involved in this process were affected by a scarcity of information, mainly stocks data or financial statements, or had been delisted, causing a consequent lack of data. This was mainly reported regarding Eastern insurance companies. Even intragroup M&A and non-relevant acquisition stakes were deleted from the initial sample. So, finally, the original sample was sized, grouping a total of 84 completed deals around Europe.

The financial data regarding companies' stocks were provided by Yahoo Finance, as it is one the most famous reliable stock sources used in this field. Rather, the accounting data were exported from Orbis, part of Bureau Van Dijk group as well, a database that stores information regarding most of the companies based in Europe. This gives general information about the companies, their groups, their sectors, and their stockholders, and also the accounting documents both consolidated and not consolidated, according to local accounting principles and the most standardised ones, such IAS/IFRS, or in this specific case, even local GAAP. This was a matter of confusion as well because many insurance companies adopted different accounting principles during the years, causing some doubts regarding their applicability and compatibility. This issue was solved by the assumption that the main labels, used for this dissertation, of each financial statement (balance sheet, income statement and technical income statements) follow actual similar computation principles. So, in conclusion, the differences are minimal and not sufficiently large to cause relevant misleading results.

Regarding the market index used for the calculation of the expected returns of the firms analysed in this work, both for the CAAR and BHAR event study, the choice fell on the STOXX® Europe 600 Insurance Index. It is the sectorial index for European insurance firms. In fact, in this regard, the organizations included in the sample used for this work are part of the components of the index itself.

In a second phase, the sample of 84 transaction was split into two main groups, in accordance with the purpose of this dissertation. The two main groups correspond to the two main types of strategy adopted by the acquirors when implementing M&A. Consequently, the first group is made by firms that purchased same business targets, while the second one gathers all the acquirors that diversified their portfolio of companies. For these reasons, the first group was named “Focus Group”, while the other one was labelled as “Conglomeration Group”, reminding to the previous work in this regard written by Cummins et al. (1999). Even this latter group was divided into two subgroups. The first one stands for the firms that diversified through targets that operate in different business lines, but still in the insurance sector, while the second one mirrors the firms that decided to diversify outside the insurance sector. Therefore, the adopted nomenclature was for the sake of simplicity “Partially Diversified Group” in the first case, and “Totally Diversified Group” in the second one.

The criteria adopted for the identification of which group the deal belonged to relies on the comparison of the NAICS 2017 codes of both buyers and targets, case by case. So, it was considered as “focus” when the codes of both parties matched for every single code. Instead, it was referred as “conglomeration” when not all the codes or no one of them matched. Then, if the target’s codes different from the buyer’s codes were still within the insurance industry, that specific case were considered as “partially diversified”, otherwise, if they differed even in terms of major industry, they were identified as “totally diversified”.

In conclusion, a brief description of each group is shown hereunder.

4.1. Groups’ Brief Summary

As previously reported, the total sample obtained computes a total of 84, but the first sample group, the Focus Group, gathers an amount of 34 transactions. Nevertheless, the number of companies involved in this strategic approach to M&A is 17, covering 11 different countries around Europe. Logically, the number of companies involved is lower than the number of transactions occurred, because some of the firms completed different acquisitions during the observed time horizon (2010-2020).

The Conglomeration Group presents a total number of 50 deals successfully occurred between 2012 and 2018. Among these deals, there are 22 different buyer companies, for an overall of 12 European countries.

The Partially Diversified Group is the first of the subgroups belonging to the Conglomeration Group. It includes 13 different firms, for 8 European countries. The overall number of deals completed regarding this specific group is 24.

Concluding, the Totally Diversified Group presents 16 different firms, covering 9 European countries. Instead, the total number of 26 completed deals.

5. Descriptive Statistics

This chapter is aimed to provide a descriptive statistic regarding the sample groups involved in this work. The purpose of a descriptive statistics is to show data that summarise the characteristics of the given datasets, to be precise the datasets regarding the main groups described above. The following descriptive analysis is about to exhibit the measures of central tendency and dispersion. In this case the measures selected for the purpose expressed previously are the mean and the median, for the detection of the central tendencies, and the standard deviation for the data dispersion extrapolation. Assuming that the firms composing the datasets are substantially heterogeneous, especially in terms of size, assets, or market positioning, among other many characteristics, the variables exported from Orbis are too inconstant to be a reliable proxy for the descriptive statistics of the groups. Consequently, the choice was to take into consideration just the measures used for the univariate analysis for the computation of the central tendencies and dispersion, as the measures involved, namely ROA, Combined Ratio, and Risk Retention, should theoretically be more trustable and constant among same industry companies. Finally, the following descriptive statistics is based on the assessment of the aforementioned measures during the period [-1; +3], so by the year prior to the deal until the third after the deal.

5.1. Main Groups' Statistics

Table 1 shows the trends of the two main groups (Focus and Conglomeration Groups) regarding ROA, Combined Ratio and Risk Retention. The first fact observed depicts relevant differences between the mean and median results for each measure. It can be explained by attributing such differences to the vast heterogeneity affecting the sample. Consequently, this could lead to the intuition that the sample could probably be affected by the presence of some outliers. Logically, the outliers are able to influence mainly the results provided by the means of the measures, while the median is less inclined to be affected by extreme results, assuming that the median pictures the central tendency and ignores the outliers. In other words, the means show substantial differences in values from the medians, because the outliers present values enough distant from the central tendency to give them a high incidence over average results. This suggests the necessity for taking into consideration the median values in the running of the analysis.

Table 1 - Focus Group and Conglomeration Group Descriptive Statistics

This table shows the means, medians and standard deviations for each main group identified during this work (Focus Group and Conglomeration Group) regarding every operational measure (ROA, Combined Ratio, and Risk Retention). *Panel A* and *Panel B* denote respectively the Focus Group and the Conglomeration Group. Rather, each column reports the central results and dispersion results for each year around the deal since the year before until the third year after.

	Year				
	-1	0	1	2	3
Panel A: Focus Group					
ROA					
mean	1.10%	1.06%	0.67%	1.02%	0.97%
median	0.77%	0.80%	0.72%	0.73%	0.70%
standard deviation	0.0111	0.0096	0.0118	0.0127	0.0113
Combined Ratio					
mean	174.15%	156.59%	157.47%	147.74%	143.35%
median	112.85%	109.43%	107.56%	107.60%	105.83%
standard deviation	1.8765	1.4743	1.7787	1.0898	1.5133
Risk Retention					
mean	91.58%	91.55%	118.23%	92.59%	90.57%
median	93.87%	94.24%	94.13%	94.24%	93.65%
standard deviation	0.0974	0.0891	1.5378	0.0738	0.1261
Panel B: Conglomeration Group					
ROA					
mean	1.41%	1.24%	0.78%	0.98%	1.01%
median	0.64%	0.68%	0.54%	0.68%	0.72%
standard deviation	0.0159	0.0134	0.0103	0.0090	0.0096
Combined Ratio					
mean	156.81%	132.47%	139.32%	145.20%	144.54%
median	110.26%	107.38%	107.60%	107.28%	106.62%
standard deviation	1.5730	1.1507	1.3451	1.1629	1.4093
Risk Retention					
mean	92.82%	92.30%	92.22%	90.88%	109.17%
median	94.73%	93.59%	93.53%	92.88%	93.66%
standard deviation	0.0564	0.0618	0.0581	0.0734	1.2689

By the way, the ROA of the Focus Group slightly decreases after the deal completion. Both mean and median show the same trend. This suggests that the increase in the total assets is enough large to overcome the increase in the net profits after tax. Instead, the Conglomeration Group presents two different trends, as the mean reports a negative trend, because it goes down from 1.41%, in t_{-1} to 1.01% in t_3 , suggesting the same explanations of

the Focus Group, while the median improves by 0.08% during the four years span. In addition, the standard deviations of the two groups regarding the ROA are sufficiently low, suggesting that the single ROAs computed for each sample element do not differ too largely from the central tendency.

Oppositely, the Combined Ratio shows a positive trend, as the mean and the median decrease in both groups. For instance, taking into account the median values, the Focus Group's Combined Ratio reduces from 112.85% in t_1 to 105.83% in t_3 , while the Conglomeration Group's one decreases from 110.26% to 106.62% in the same span. The variations in this statistic are not extremely large, but they show a sufficient percentage drop to assert a significant improvement acquirors' profitability. This statistic highlights the probability for the presence of cost structure or revenue efficiencies. In this case, the standard deviations are considerably high, with values always above 1, meaning that the components of mean and median differ in a consistent manner from the central tendency, probably due to the dispersion of the results as a consequence of a high number of outliers.

Finally, the Risk Retention appears constant over the four years, meaning a constant trend in the way insurers managed the risk in both sample groups and low expansion and growth rate of profits. The only difference in this statistic is brought by the Conglomeration Group's mean, because it reports a huge improvement between the year before the deal completion and the third after that event (92.82% in t_1 and 109.17% in t_3). This is probably due to the presence of outliers, as the relative standard deviation suggests. Regarding the overall assessment of the standard deviations, they are generally low, apart from sporadic rises, especially in t_1 and t_3 , in the Focus and Conglomeration Groups respectively. Anyway, this mirrors a general low dispersion of the results and homogeneity of the components around the central tendency.

5.2. Conglomeration Subgroups' Statistics

Even in this case, *Table 2* spots the differences between mean and median values. These differences are relatively small for most of the adopted measures. Relevant differences can be identified just for the ROAs and the Combined Ratio of the Totally Diversified Group. Even though the sample groups present means, and medians deeply closed for the remaining measures, corroborating the central tendencies, it seemed more reliable the use of median values for the analysis as a standard general rule of this work.

Table 2 - Conglomeration Subgroups Descriptive Statistics

This table shows the means, medians and standard deviations for each subgroup identified during this work (Partially Diversified Group and Totally Diversified Group) regarding every operational measure (ROA, Combined Ratio, and Risk Retention). *Panel A* and *Panel B* denote respectively the Partially Diversified Group and the Totally Diversified Group. Rather, each column reports the central results and dispersion results for each year around the deal since the year before until the third year after.

	Year				
	-1	0	1	2	3
Panel A: Partially Div. Group					
ROA					
mean	1.78%	1.45%	0.74%	1.22%	1.17%
median	0.82%	0.71%	0.55%	0.71%	0.77%
standard deviation	0.0174	0.0144	0.0090	0.0110	0.0099
Combined Ratio					
mean	107.36%	104.90%	104.90%	105.82%	112.60%
median	108.29%	107.38%	107.52%	106.68%	105.81%
standard deviation	0.1538	0.1277	0.1280	0.1380	0.3720
Risk Retention					
mean	93.62%	93.61%	93.18%	92.88%	92.67%
median	94.38%	94.12%	94.08%	93.59%	93.82%
standard deviation	0.0459	0.0430	0.0469	0.0467	0.0488
Panel B: Totally Div. Group					
ROA					
mean	1.07%	1.05%	0.81%	0.75%	0.86%
median	0.51%	0.51%	0.50%	0.44%	0.52%
standard deviation	0.0140	0.0125	0.0116	0.0061	0.0092
Combined Ratio					
mean	202.47%	157.93%	171.10%	181.56%	174.02%
median	121.56%	108.37%	115.22%	117.06%	112.80%
standard deviation	2.0920	1.5621	1.8200	1.5318	1.8914
Risk Retention					
mean	92.08%	91.10%	91.34%	89.03%	124.40%
median	94.89%	93.08%	90.58%	91.45%	92.87%
standard deviation	0.0646	0.0739	0.0666	0.0884	1.7617

Starting from the ROAs description, both subgroups provide a deterioration in terms of average results, reminding to a larger growth in total assets than in net profits after tax in proportion. Regarding the median values, the trends are different. The Partially Diversified Group exhibits a negative trend. In fact, the median ROA moves from 0.82% to 0.77%. Rather, the Totally Diversified Group's median ROA is quite stable during the four years,

with a value around 51-52%. In both cases, the standard deviation is fairly close to 0, standing, as a consequence, for a low dispersion of the values. Consequently, a large presence of outlier values is reasonably improbable, rather it suggests a uniformity around the central tendency regarding the ROAs provided by the firms of the samples.

The Partially Diversified Group shows a worsening Combined Ratio in terms of mean value, as it raises by 5.24% during the span. It is actually 107.36% during the year before the deal completion, while it becomes 112.60% on the third year after that event. Rather it marginally decreases considering the median. In fact, it is 108.29% in t_1 and 105.81% in t_3 . In the meanwhile, the Totally Diversified Group presents the same trend in mean and median values. For that group the Combined Ratio improves significantly, justifying the creation of cost or revenue efficiencies. Nevertheless, the standard deviation of the Totally Diversified Group is quite high, with values between 1.5 and 2 over the analysis period, while it is relatively low for the other subgroup. It denotes the probability of outliers within the sample group of the totally diversified companies.

Generally, the Risk Retention ratio appears sufficiently stable in mean and median values during the time horizon for both subgroups, with a very slight and constant downturn trend. For instance, when observing the median values, the negative gap is around 0.5% for the Partially Diversified Group, and almost 2% for the Totally Diversified Group, after four years from the first recording. The only detected outlier value is the mean one in t_3 for the Totally Diversified Group, because there is a deep increase. Anyway, it clearly looks like an outlier, because the trend shows a lightly decreasing tendency, and the standard deviation is higher, suggesting the presence of outliers that probably affect the mean value. Nonetheless, the standard deviations are generally low, standing for component values close to the central tendency.

6. Results

This chapter has the purpose of showing the results obtained during the analysis carried out. The results have the duty of elucidating and answering to the academic questions introduced in the beginning of this dissertation. Indeed, each test was suited for clarifying the two doubts proposed during this work: “Which is the best M&A strategy between the focus and the conglomeration strategy from the acquirors’ point of view?” and “Regarding the solely conglomeration strategy, what is the best between diversifying within the insurance industry or outside this same industry?”

The results achieved through the three types of analysis are going to be shown following the time horizon schema already applied for the methodology chapter. So, the first section is dedicated to the short-term results, while the second one is for the long-term results.

6.1. Short-Term Results

Table 3 provides the result of the CAAR event study regarding the two main groups: the Focus Group and the Conglomeration Group. For both groups the event study was run for a seven-day event window $[-3; +3]$. In other words, the following results capture the shareholders’ sentiment regarding the buyer companies and the deals which they were involved in, expressed through the variations in acquirors’ stock prices.

Table 3 - CAAR Analysis for the Focus and Conglomeration Groups

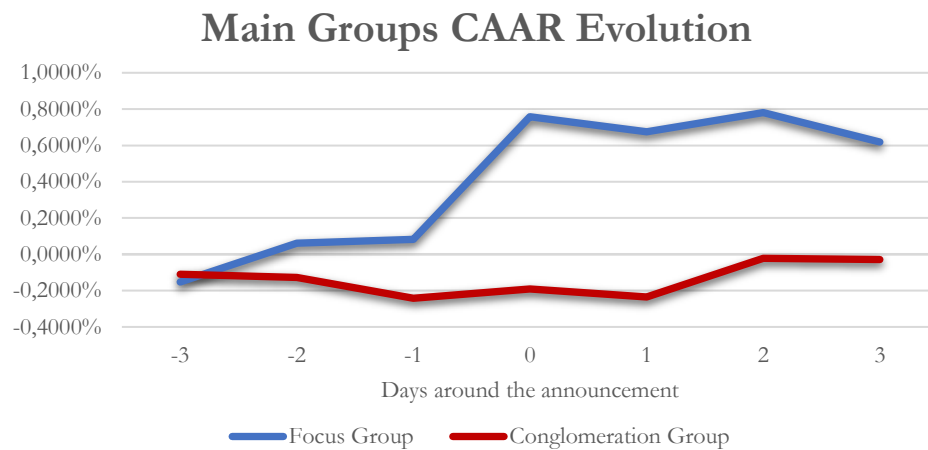
Hereunder, the results of the CAAR analysis regarding each one of the main groups is presented. These include the value about the sample size, the cumulative average abnormal returns ($CAAR_t = \sum_{t=-1}^T AAR_t$) for the event window $[-3; +3]$, the parametric Student test and its related p -Value, and the Wilcoxon signed-rank test with linked p -Value (significance level of 5% for both the tests). The last row shows the absolute difference between the CAARs of the two groups.

	N	CAAR $[-3; +3]$	Parametric Test	p -Value	Non-Parametric Test	p -Value
Panel A: Focus Group	34	0.6181%	3.23	0.0029	2.34	0.0191
Panel B: Conglomeration Group	50	-0.0287%	3.30	0.0018	2.70	0.0069
Difference	84	0.6469%	4.93	0.0000	3.74	0.0002

The chart exhibited in *Table 4* shows that the two groups followed two different courses regarding the cumulative average abnormal returns. Looking at the specific evolution of the CAAR of each sample group, the differences between the two main M&A strategic approaches are visibly evident.

Table 4 - *Focus and Conglomeration Groups' CAAR during the event window [-3; +3]*

This line graph provides the evolution featuring the cumulative average abnormal returns of the Focus and Conglomeration Groups during the event window [-3; +3]. So, every line shows the cumulative evolution of the abnormal returns of the main groups since t_{-3} until t_{+3} .



Beginning from the Focus Group, the cumulative average abnormal returns assume a negative value just on the first day of the analysis, so on the third day before the announcement day. During the following days the evolution is overall upturning. In the specific, the chart shows a harsh improvement until the announcement day, while it faces a sinusoidal but basically stable trend after that moment. This mirrors the shareholders' expectation regarding the acquiror firms involved in the acquisitions. Consequently, the results suggest that the stockholders' sentiment is on average relatively extremely positive in the days prior to the announcement of the acquisition or merger and generally positively stable even then after. So, it is reasonable to deduct that the shareholders have generally well accepted the acquisitions and have believed that they could effectively generate some sorts of additional wealth value for them. Indeed, the value of the Focus Group CAAR is 0.6181%, meaning that on average the assessment of the acquisition by the acquiror was positive, probably due to the belief of synergies development after the completion of the deal or the

improvement of market share by acquiring the target firms. The result is also statistically significant, according both to the parametric test and the Wilcoxon signed-rank test, with a significance level of 5%. This corroborates the idea that the acquisitions of firms in the same business line add value to buyers' shareholders' wealth.

Analysing the Conglomeration Group's cumulative average abnormal returns evolution, the expectations of the stockholders about the acquisitions was generally negative all over the event window. *Table 4* highlights that the cumulative average abnormal returns are always negative since the third day prior to the announcement day until the third one after. There is just a slight improvement since the day after the announcement, mirroring a favourable acceptance of the acquisitions by the shareholders, even though it is not sufficient for a general positive assessment of the transactions. In fact, the result of the Conglomeration Group CAAR is -0.0287%. The result is statistically significant even in this case. Nevertheless, the analysis provides an unconventional result regarding this last group, according to the theory on this subject. Rani et al. (2015) found out that generally it would be expected to provide a positive value, because usually the announcement of an acquisition available to the investors, because of forms of leakages (Aktas et al. 2007), brings an expected positive sentiment regarding shareholders' wealth value. This last result goes consequently against what is generally believed on M&A events. By the way, the result reflects the idea that those mergers and acquisitions could not be able to generate value from the stockholders' point of view, maybe due to an overall perceived complexity in the generation of synergies or post-deal benefits following a diversification strategy.

Overall, the difference assessed between the cumulative average abnormal returns of the two main strategic approaches to M&A is substantial. Indeed, the result is 0,6469% of gap between the Focus and Conglomeration Groups. Consequently, the results suggest that a focus strategy on the existing business is on average better, confirming Liebenberg et al. (2008)'s findings about a market and accounting diversification penalty in the insurance industry.

Splitting the Conglomeration Group into the two main two types of strategy, it makes possible to find the evidence of why the diversification strategy had those negative results. Assuming that the Partially Diversified Group and the Totally Diversified Group form the main components of the Conglomeration Group, their independent results lead to the negative CAAR identified for that main sample group.

Table 5 exhibits the CAAR event study analysis for the Partially Diversified and Totally Diversified Groups, while *Table 6* represents the CAAR evolution during the period [-3; +3] for both the subcategories. Those two tables show divergent cumulative average abnormal returns trends. Indeed, the diversification within the insurance sector computes a negative cumulative average abnormal return of -0.8548%. Instead, diversifying outside the insurance industry was favourably welcomed by shareholders, as the CAAR in this case is 0.7338%. All the results are statistically significant even in this analysis, as confirmed by the t-test and the non-parametric test as well, with a level of significance of 5%. The two groups are so distant that the absolute value of the difference is 1.5886%. This value is particularly relevant, because it mirrors two opposite consequences when buyer firms adopt one or the other M&A strategy.

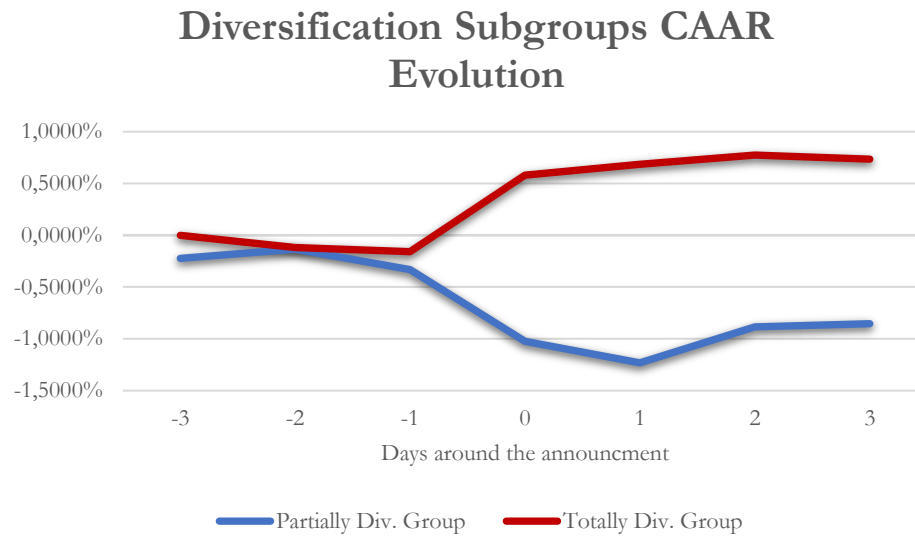
Table 5 - CAAR Analysis for the Partially Diversified and Totally Diversified Groups

Hereunder, the results of the CAAR analysis regarding each one of the subgroups is presented. These include the value about the sample size, the cumulative average abnormal returns ($CAAR_t = \sum_{t=1}^T AAR_t$) for the event window [-3; +3], the parametric Student test and its related *p*-Value, and the Wilcoxon signed-rank test with linked *p*-Value (significance level of 5% for both the tests). The last row shows the absolute difference between the CAARs of the two subgroups.

	N	CAAR [-3; +3]	Parametric Test	<i>p</i> -Value	Non-Parametric Test	<i>p</i> -Value
Panel A: Partially Div. Group	24	-0.8548%	2.83	0.0098	2.39	0.0169
Panel B: Totally Div. Group	26	0.7338%	3.73	0.0010	2.31	0.0207
Difference	50	1.5886%	8.94	0.0000	5.07	0.0000

Table 6 - Conglomeration Subgroups' CAAR during the event window $[-3; +3]$

This line graph provides the evolution featuring the cumulative average abnormal returns of the Partially Diversified and Totally Diversified Groups during the event window $[-3; +3]$. So, every line shows the cumulative evolution of the abnormal returns of the main groups since t_{-3} until t_{+3} .



The Partially Diversified Group shows negative cumulative average abnormal returns all over the event window, with a huge drop since the day before the announcement until the day after the announcement. There is a slight improvement since t_1 , but it is not enough to compensate the negative trend. This result reflects the negative expectations about the acquisitions by the shareholders. It could be due to the misalignment from the core business undertaken by the buyer insurers. So, this could have led to the perception of confusion around the initial strategy characterising the companies, consequently reflected into a decrease in stocks prices of the companies involved in this kind of M&A strategy.

Oppositely, the Totally Diversified Group bears a strong rise since t_1 , meaning that the stockholders believed in the creation of wealth from those purchases. Probably, this sharp diversification strategy was perceived as a strong expansion in different market, apart from the insurance sector, with the following possibility of increasing market shares or originating synergies.

These results, referring to the main groups and subcategories event studies, suggest that on average the investors appreciate specialisation and extreme diversification strategies. That hypothesis could be also explained and supported by the fact that the shareholders may be more inclined to accept benevolently M&As involving target companies considerably

similar to the bidders, because of a better knowledge of the market and a consequently better procedure of post deal integration, or targets placed in totally different markets, following a portfolio strategy that aims to improve risk diversification or exploit new synergetic markets able to add value to those insurance companies.

6.2. Long-Term Results

The results of the two long-term analyses are going to be presented hereunder, starting from the BHAR event studies, and concluding with the univariate analysis.

6.2.1. Buy-and-Hold Abnormal Returns' Results

The BHAR analysis, reported in *Table 7*, states that both strategies led to negative results. In fact, the focus strategy brings to a decrease by 47.93% in the stock prices, while the diversification strategy is affected by a 22.20% fall, confirming André et al. (2004)'s results. It means that on average the companies involved in the acquisition of same business lines firms registered a drop in the stock price after the deal larger than the ones that adopted a diversification approach. There are many factors that could affect these results. Consequently, it is hard to define precisely why it happened. However, these results provide a suggestion, namely the acquisitions selected for this event study did not bring benefits for the acquirors in the long run, or the expected benefits were not sufficiently large to balance other negative external factors.

Table 7 – *BHAR Analysis for the Focus and Conglomeration Groups*

Hereunder, the results of the BHAR analysis regarding each one of the main groups is presented. These include the value about the sample size, the buy-and-hold abnormal returns ($\overline{BHAR}_T = \frac{1}{N} \sum_{i=1}^N BHAR_{i,T}$) for the event window [+1; +36], the parametric Student test and its related *p*-Value, and the Wilcoxon signed-rank test with linked *p*-Value (significance level of 5% for both the tests). The last row shows the absolute difference between the CAARs of the two groups.

	N	BHAR (36 months)	Parametric Test	<i>p</i> -Value	Non-Parametric Test	<i>p</i> -Value
Panel A: Focus Group	34	-47.93%	2.13	0.0410	2.09	0.0364
Panel B: Conglomeration Group	50	-22.20%	1.50	0.1409	2.94	0.0032
Difference	84	25.73%	2.03	0.0456	3.70	0.0002

Although the results provide notably evidence regarding the mergers and acquisitions impact on buyer insurers, the results shown by *Table 7* are not always statistically significant using the parametric test, while they can be considered statistically significant when looking at the Wilcoxon signed-rank test. The parametric Student test suggests that just the Focus Group presents significant results, while the t-test for the Conglomeration Group's BHAR is not statistically significant. This means that the M&A activity implemented by the firms that adopted a diversification strategy cannot be referred as an impact factor over their long-term stock performances. Nonetheless, the Wilcoxon signed-rank test proposes that all the buy-and-hold analyses run for the Focus and Conglomeration Groups are statistically significant. So, the strategies adopted by the bidders may be accounted as the causes of their abnormal returns in the 36 months after the acquisitions.

Nevertheless, the difference in the stock performance of the two groups is relevantly high and statistically significant. In fact, there is a gap of 25.73% between them, in favour of the Conglomeration Group, mirroring a sort of predilection by the stockholders. So, it means that if assuming hypothetically that the Conglomeration Group's BHAR was due to the acquisitions carried out by the purchaser companies of that sample and not taking into account the t-test results, those organizations performed much better than the Focus Group's ones. That result would contrast with the CAAR event study. Consequently, it could be deducted that even if the focus firms performed better in the very short-time horizon, around the announcement day, the long-term results were totally different, and the conglomeration companies mitigated better the external factors. Another hypothesis would be that the expectation provided by shareholders were not satisfied in the long term, or were generally negatively trended, but the adoption of a diversification strategy brought fewer negative expectations in the three years after the deal. In addition, these findings result to be perfectly aligned with Krivokapic et al. (2017)'s study, in which they showed the superior performances of the diversifying insurance bidders in the long-term.

Table 8 introduces the buy-and-hold analyses for the Partially Diversified Group and the Totally Diversified Group. In this case the results achieved are not statistically significant, according to both the t-test and the Wilcoxon signed-rank test shown in *Table 8*. Just the non-parametric test for the Totally Diversified Group's BHAR resulted statistically significant. Anyway, both groups have negative buy-and-hold abnormal returns. Indeed, the Partially Diversified Group's BHAR is -24.98%, and the Totally Diversified Group's BHAR

is -19.64%. The gap between them is relatively low, because its absolute value is 5.34%, in favour of the Totally Diversified Group. This suggested that, assuming any kind of results' reliability, the diversification involving totally different sectors could lead to less negative consequences rather than adopting a differentiation policy, but still within the insurance industry. Possibly, purchasing companies outside the insurance sector reveals to be a useful portfolio strategy, conceding a better risk positioning and revenues generation. However, even considering these results as hypothetically significant, the potential reasons or causes would be many, and, consequently, it would be very difficult the identification of the actual explanations of these results.

Table 8 – BHAR Analysis for the Partially and Totally Diversified Groups

Hereunder, the results of the BHAR analysis regarding each one of the subgroups is presented. These include the value about the sample size, the buy-and-hold abnormal returns ($\overline{BHAR}_T = \frac{1}{N} \sum_{i=1}^N BHAR_{i,T}$) for the event window [+1; +36], the parametric Student test and its related p -Value, and the Wilcoxon signed-rank test with linked p -Value (significance level of 5% for both the tests). The last row shows the absolute difference between the CAARs of the two subgroups.

	N	BHAR (36 months)	Parametric Test	p -Value	Non-Parametric Test	p -Value
Panel A: Partially Div. Group	24	-24.98%	1.26	0.2191	1.58	0,1150
Panel B: Totally Div. Group	26	-19.64%	0.88	0.3873	2.53	0,0113
Difference	50	5.34%	0.36	0.7203	0.36	0,7153

6.2.2. Univariate Analysis' Results

This type of analysis was implemented in order to identify the impact of the M&A activity on the buyer firms in the insurance industry through the detection of changes in the main variables and performance measures.

The first assumption of the univariate analysis is the use of just median values, according with the purpose of reducing as much as possible the interference of the outliers on the results. Nevertheless, the results obtained are not always statistically significant because of the high incidence of the outliers. In addition, both the parametric and the non-parametric tests gave similar results. So, for simplicity, the tables shown below identify the

significance values according just to the parametric Student test, as it should be more reliable than the non-parametric test, according to Chin and Lee (2008).

The assessment of the operational performance of the sample companies due to the application of specific M&A strategies was achieved by comparing the results provided by each group that were selected for this study since the beginning.

Finally, this section is going to start form the univariate analyses of the main variables, while it is going to conclude with the univariate analyses of the performance measures.

6.2.2.1. Main Variables

Panel A of the *Table 9* shows the main variables of the Focus Group. As the data reported, the total assets increased after the acquisition, whit a huge growth detected since the second year after the deal. Indeed, the growths identified are by 12.62% [-1; +2] and 14.59% [-1; +3]. Even the gross and net written premiums present a significant growth since the year before the deal. The largest growths are registered during the second year since the transaction year. There are slight falls since the third year. That could be due to a sort of written premiums normalization after two years from the deal, causing a slighting growth rate. Regarding the underwriting expenses and the profit after tax, the results achieved are not statistically significant, meaning that the deals have not a relevant impact on them. In other words, they are not due to the fact those companies have bought the targets. Anyway, there is a relatively small increase in the underwriting expenses since t_{+2} , while the data show a slight decrease during the year before. So, it means that the costs synergies worked just for one year. Even the profit after tax suggests an overall worsening after the M&A activity. Hypothetically, this result could suggest that the companies were not able to develop properly the expected synergies, and, as a consequence, there were not the assumed operational improvements necessary for the enhancement of the profit after tax.

Panel B provides the results related to the Conglomeration Group. Even in this case, the total asset improved after the purchasing, probably a consequence of the ownership acquisition of new assets. Anyway, the growth is like the Focus Group's one, although slightly higher. For instance, in t_{+3} the growth is 14.59% for the Focus Group, while it is 15.43% for the Conglomeration Group. The gross and net written premiums, instead, present negative results in t_{+1} , while the growth is positive during the years after. By the way, *Table 13* shows that the growth of the gross and net written premiums in the Focus Group are marginally

higher than the same variable in the Conglomeration Group. In both cases, the gap is less than 1%. Regarding the underwriting expenses and the profit after tax, they are not statistically significant, as for the Focus Group. Nonetheless, the results are better than in the focus situation, even though the result could not be linked to the mergers and acquisitions.

Table 9– *Main Variables Changes for the Focus and Conglomeration Groups*

This table provides the results about the changes in the main variables for both the Focus Group (*Panel A*) and the Conglomeration Group (*Panel B*). The main variables represent the main accounting data base for the calculation of the measures. In addition, the changes are computed as percentage growths based on the year before the deal completion year. Each column shows the growth rate until respectively the first, the second and the third year after the completion of the deal. The classification *, **, ***, correspond to the statistical significance at the 10%, 5%, and 1% level for parametric t-test, as it would be more reliable than the non-parametric test. Anyway, both tests gave similar results.

	Time Period		
	[-1; +1]	[-1; +2]	[-1; +3]
Panel A: Focus Group			
Total Asset	3.95%*	12.62%***	14.59%***
Gross Written Premium	0.52%	6.04%*	5.44%**
Net Written Premium	0.41%	7.53%**	5.43%*
Underwriting Expenses	-3.33%	3.51%	4.73%
Profit After Tax	-2.63%	-2.81%	-1.38%
Panel B: Conglomeration Group			
Total Asset	4.49%***	8.87%***	15.43%***
Gross Written Premium	-4.29%***	0.46%	5.18%**
Net Written Premium	-3.88%**	-0.99%	5.12%**
Underwriting Expenses	-5.25%	-3.05%	3.19%
Profit After Tax	-7.63%	-4.28%	9.89%

Table 10 reports the changes in the main variables for the conglomeration subcategories. Generally, few of the main variables analysed are statistically significant, meaning as before that their changes are not due to the acquisitions.

By the way, *Panel A* shows the results regarding the Partially Diversified Group. In this case, the total asset presents a significant growth all over the three years after the deal compared to the year before the deal happened. For instance, in t_{+3} the result reported is 16.19%, that can be assumed relatively large. Both gross and net written premiums highlight a fall in the first year since the deal completion, respectively by 4.17% and 2.74%. Rather

they grow since t_{+2} . The underwriting expenses and the profit after tax drop from beginning values quietly largely until the last year of analysis, when positive results are registered. As previously written, most of these results are not statistically significant, but hypothetically they could be due to an enough development of synergies for the balance of the increasing expenses.

Table 10 – *Main Variables Changes for the Partially and Totally Diversified Groups*

This table provides the results about the changes in the main variables for both the Partially Diversified Group (*Panel A*) and the Totally Diversified Group (*Panel B*). The main variables represent the main accounting data base for the calculation of the measures. In addition, the changes are computed as percentage growths based on the year before the deal completion year. Each column shows the growth rate until respectively the first, the second and the third year after the completion of the deal. The classification *, **, ***, correspond to the statistical significance at the 10%, 5%, and 1% level for parametric t-test, as it would be more reliable than the non-parametric test. Anyway, both tests gave similar results.

	Time Period		
	[-1; +1]	[-1; +2]	[-1; +3]
Panel A: Partially Div. Group			
Total Asset	3.94%*	8.87%***	16.19%***
Gross Written Premium	-4.17%*	1.09%	5.18%*
Net Written Premium	-2.74%	1.25%	5.74%*
Underwriting Expenses	-9.47%***	-3.39%	2.61%
Profit After Tax	-23.55%	-6.72%	4.30%
Panel B: Totally Div. Group			
Total Asset	4.49%**	9.75%***	14.88%***
Gross Written Premium	-4.29%*	-1.57%	5.09%
Net Written Premium	-4.42%*	-3.56%	4.50%
Underwriting Expenses	1.89%	-2.61%	11.86%
Profit After Tax	2.79%	9.23%	16.11%

Panel B reports the changes in the main variables for the Totally Diversified Group. Even in this case, the total asset grows exponentially since t_{+1} . For instance, the growth reaches the value of 14.88%. By the way, the performances are quite similar, even if the Totally Diversified Group's total asset growth is marginally higher than in the other case until the last year, when it is the reverse. Furthermore, the other results are not statistically significant. Nevertheless, the gross and net written premiums decrease in the first two years, and go up just in the third year, respectively by 5.09% and 4.50%. These results seem to be fairly aligned with the results of the Partially Diversified Group. Finally, the underwriting

expenses and the profit after tax show upturning trends, much larger than in the other sample group. Even in this case, it would be possible to provide the same explanations applied for the Partially Diversified Group.

6.2.2.2. Performance Measures

Table 11 provides the changes in the operational or performance measures for the Focus and Conglomeration Groups. The measures assessed are ROA, Combined Ratio and Risk Retention, as previously explained in the methodology section. Unfortunately, the ROA assessment was not statistically significant for each sample, meaning that the ROA was not affected by the M&A activity implemented by the acquirors taken into consideration for this study.

Table 11 – *Performance Measures Changes for the Focus and Conglomeration Groups*

This table provides the results about the changes in the measures for both the Focus Group (*Panel A*) and the Conglomeration Group (*Panel B*). The changes are computed as percentage growths based on the year before the deal completion year. Each column shows the growth rate until respectively the first, the second and the third year after the completion of the deal. The classification *, **, ***, correspond to the statistical significance at the 10%, 5%, and 1% level for parametric t-test, as it would be more reliable than the non-parametric test. Anyway, both tests gave similar results.

	Time Period		
	[-1; +1]	[-1; +2]	[-1; +3]
Panel A: Focus Group			
ROA	-0.05%	-0.01%	-0.09%
Combined Ratio	-1.66%***	-2.33%	-2.04%**
Risk Retention	-0.46%*	-0.15%	-0.16%*
Panel B: Conglomeration Group			
ROA	-0.02%	-0.05%	-0.04%
Combined Ratio	-1.23%***	-1.71%*	-1.26%*
Risk Retention	-0.24%*	-0.43%	-0.68%*

The Focus Group, reported in *Panel A*, exhibits an overall stable ROA during the analysis span. Generally, its growth since t_{-1} is slightly negative, but always fairly close to 0%. The worst value is achieved in t_{+3} and it is -0.09%. By the way, these results are not significant, so, it cannot be asserted that the ROA trend was due to the specialisation strategy. The Focus Group is on average affected by a negative growth of the Combined Ratio, following the deals. The decreasing growth stands for an improvement of the Combined Ratio. It is due to an averagely sufficiently higher growth in gross written premium than in underwriting

expenses. So, it means that the transaction led on average to cost or revenue efficiencies. In addition, these efficiencies enlarged between the first and the third year after the deal completion, because there is a decrease in the Combined Ratio by 0.38%. Rather, the Risk Retention becomes worse after the deal. Anyway, this worsening is mitigated as it decreases in t_{+3} . For instance, the gap between the year before and the year after the M&A event years is -0.46%, while, considering the third year after the M&A event years, it is -0.16%. Consequently, it goes up by 0.30% during the time horizon considered.

The Conglomeration Group shows either a generally stable ROA, marginally negative and basically equal to 0%. As anticipated, the results are not statistically significant, mirroring no correlation between the mergers and acquisitions and the ROA light fall. Even in this case, the Combined Ratio highlights a drop, even if it is smaller at the end of the period compared to the Focus Group case. The difference between them is 0.33% in favour of the Focus Group. So, even though the results suggest an operational improvement for all the firms, the companies that adopted a M&A strategy of focusing were generally more able to develop operational synergies than the ones that implemented a diversification approach. According to the main variables analyses, these synergies seem to be linked to a better improvement in revenues, namely gross written premiums, or net written premiums, than to cost incidence cutting. However, the Risk Retention is on average negative trended for the Conglomeration Group, as for the Focus Group. Nonetheless, in this situation, it drops ever more during the span. In fact, the fall between t_{-1} and t_{+1} is by 0.24% and it becomes by 0.68%, when comparing t_{-1} and t_{+3} , with a difference of 0.44%. Rather, the difference between the two groups at the end of the period is 0.52% in favour of the Focus Group. Consequently, the Focus Group overperformed the Conglomeration Group even under the risk assessment.

The results reported above suggests that usually the acquisition of companies according to a focus strategy in the insurance industry leads to better performances than when following a diversification strategy, contrasting Peng et al. (2017)'s findings.

Regarding the performance measure assessment of the two subgroups of firms that adopted the two main kinds of diversification strategy, reported in *Table 12*, the analysis found many constraints. These constraints were the consequences of the high variability within the sample groups in terms of operational performances. In fact, many of the results reported below are not statistically significant.

Table 12 – *Performance Measures Changes for the Partially and Totally Diversified Groups*

This table provides the results about the changes in the measures for both the Partially Diversified Group (*Panel A*) and the Totally Diversified Group (*Panel B*). The changes are computed as percentage growths based on the year before the deal completion year. Each column shows the growth rate until respectively the first, the second and the third year after the completion of the deal. The classification *, **, ***, correspond to the statistical significance at the 10%, 5%, and 1% level for parametric t-test, as it would be more reliable than the non-parametric test. Anyway, both tests gave similar results.

	Time Period		
	[-1; +1]	[-1; +2]	[-1; +3]
Panel A: Partially Div. Group			
ROA	-0.24%	-0.13%	-0.13%
Combined Ratio	-1.57%***	-2.08%*	-1.71%**
Risk Retention	-0.37%*	-0.27%	-0.47%*
Panel B: Totally Div. Group			
ROA	0.03%	-0.01%	0.03%
Combined Ratio	-0.23%	-1.30%**	1.58%**
Risk Retention	-0.19%	-0.59%	-1.16%*

Anyway, *Panel A* shows that the Partially Diversified Group is affected by a drop in ROA, but this worsening cannot be recognised as a consequence of the deals, because of the t-test (and the non-parametric test as well) results. Instead, the Combined Ratio improves since t_1 . Indeed, *Table 12* exhibits a value of -1.71% in t_{+3} . Oppositely, the Risk Retention falls slightly, but statistically significantly in t_{+3} , when it becomes -0.47%, meaning that the risk coverage faced a downturn compared to the year before the deal occurrence.

Even in *Panel B*, standing for the Totally Diversified Group, the ROA is not statistically significant, but it is more stable and closer to a null difference from t_1 . Rather, at the end of the period the sample group presents a larger Combined Ratio, even if it is following a decrease until t_{+2} . In fact, during the last year it is 1.58% larger than the year before the mergers or acquisitions, mirroring a deterioration of this marker, contrary to what happen for the other subgroup. Even the Risk Retention spoils during the three years after the transactions, reaching out a degrowth rate of 1.16%. Nonetheless a decrease happens in the Partially Diversified Group as well, the drop identified in the Totally Diversified Group is larger.

Following the results cited above, there is the evidence that the acquirors that diversified within the insurance industry performed fairly better than the companies that adopted a differentiation strategy outside the insurance sector. This would also lead to the suggestion that the spotted difference could be link to the complexity of the integration processes after the closing of the deals. For instance, it would be simple to argue that integrating diversified companies in the first case could be potentially easier than in the second case, because the target firms were not extremely far from the bidders in terms of organization, culture, market, and so on, while the differences between acquirors and targets were profoundly significant. Consequently, the development of synergies could be more applicable for the Partially Diversified Group, while for the Totally Diversified Group it would request more efforts.

Concluding, taking in consideration other similar studies that compared insurance M&A approaches, these results seem to be aligned with Cummins et al. (1999)'s findings. They provided ambiguous results, without asserting which strategy between specialization and diversification was the best, as they demonstrated that the best strategy depended on the size and type of the insurance company, but the market imperfection allowed the coexistence of both strategies simultaneously, avoiding the predominance of anyone of those. Indeed, the results of this dissertation show two main kinds of suggestions. On one hand, the Focus Group overperformed the Conglomeration Group during the CAAR and the univariate analyses, while the results were the opposite in the BHAR analysis. So, this dualism of results confirms Cummins et al. (1999)'s research.

7. Conclusion, Limitations and Future Research

The objective of this dissertation was to provide evidence that could justify the adoption of the main strategic approaches to M&A for the acquirors in the insurance industry.

This study arose from an increasing number of transactions involving insurance companies, comprehending insurance carriers, co-insurers, insurance intermediaries, and so on. Nevertheless, even assuming such M&A activity, the literature about the intersection between M&A and the insurance sector suffered a wide scarcity, because the number of authors and papers was relatively marginal.

However, this dissertation sat to provide answers about which M&A strategy works generally better for the insurance carriers. Using other words, it aimed to identify firstly what is better between focusing on the same business lines or diversifying the business lines portfolio, and secondly which type of diversification gives the best results. The way to do that implied the assessment of different levels of measurement. Traditionally, the literature used to analyse mainly the market-based performances, giving priority to how mergers and acquisitions were perceived from the market, referring mainly to the shareholders, while very few authors tried to assess the M&As performance looking at the operational outcomes, such as, for example, the measurement of the costs and revenues efficiencies. So, the approach adopted during this study course expected analyses taking into account both market-based and operational considerations, in order to provide a wider and more complete assessment of the different M&A strategies. Also, the literature highlighted a wide body focused on short-term results, while long-term studies were rarely considered. This dissertation, consequently, was aimed to give results able to describe those strategic approaches on a multi-period time frame. Therefore, all these objectives became possible by carrying out three main methodologies widely used by M&A practitioners: CAAR, BHAR, and univariate analysis. Specifically, the cumulative average abnormal returns gave short-term market-based results referring to the days around the announcement dates, the buy-and-hold abnormal returns analysis provided data regarding the long-term market-based perspective following the mergers and acquisitions, while the univariate analysis filled the necessity for the measurement of the long-term accounting performance.

The CAAR analysis showed that the two strategic approaches led to two different results. The focalization strategy positively impacted the cumulative average abnormal returns with a 7-days event window around the announcement day. Instead, the diversification strategy brought to a negative CAAR. That meant that on average a focus approach to M&A in the insurance sector is more appreciated by the stockholders in the short-term than a diversification approach. In addition, the results suggested that the negative assessment of the Conglomeration Group was due to the Partially Diversified Group, because the Totally Diversified Group exhibited positive values. Consequently, it meant that the diversification within the insurance industry generally leads the insurance acquirors firms to underperform, from the investors' point of view, compared to those that diversified outside the insurance sector.

The BHAR analyses proved to be statistically not significant according to the parametric test, meaning that the long-term results could not be related to the acquirors M&A activity. Rather, the non-parametric test revealed that this type of analysis was statistically significant when applied to the two main groups, the Focus Group, and the Conglomeration Group. Nonetheless, the values suggested that the diversification approach was better perceived by the shareholders than the focus one, while, as for the cumulative average abnormal returns analysis, the partial diversification performed worse than the total diversification, but this last result was not statistically significant for both the significance tests.

Finally, the univariate analysis argued that, assuming an operational point of view, the insurance companies that adopted a specialisation strategy regarding mergers and acquisitions, performed better in the long-term than the ones that pursued a diversification strategy, as well. Regarding the diversification subcategories, choosing targets within the insurance industry was better for the acquirors in terms of operational performances in the long run when compared to the decision of selecting targets outside the same sector. A logical reason, according to the M&A theory, relies on the difficulties in the integration processes and in the development of synergies when the acquisitions involve firms operating in totally different industries.

In sum, this study suggested the focus approach is generally better accepted by the investors in short-term, while taking into consideration a long-term perspective, the diversification approach proved to give better market-based results and, consequently, be

preferred by the market itself. Oppositely, from the operational point of view, the specialisation strategy performed better in the long-term than the diversification strategy. These opposite results also suggested that the market perceives the two main strategic approaches differently from how the operational reality of the firms actually is. Rather, the assessment around the subcategories of the diversification approach were sufficiently ambiguous, because in the short-term the results were in favour of the Totally Diversified Group, while in the long-term the results were in favour of the Partially Diversified Group.

By the way, this study presented some limitations that should be taken into account when interpreting the findings. Firstly, the overall sample size was fairly small, as the choice of only listed acquirors was forced, and the components of the sample presented a high variability and many outliers. Secondly, even though the sample was composed by only listed companies, there were many missing information, especially for Eastern European firms. Third, the analyses run during this dissertation did not isolate each single factor that could affect the sample firms' performances and recognised the mergers and acquisitions as the only influence cause of the results.

In conclusion, these findings are aimed to provide the basis for further research in this area. Firstly, an enlargement of the sample basis could be considered a plus, computing for the study also not listed European insurance firms. Another suggestion regarding future similar studies would be the introduction of additional methodologies, able to depict different other features of the operational performance that could be linked to the M&A activity, such as the valuation of the synergies developed after the deals, the effects on the competition, or the consumer sentiment and perception of the insurance firms and products. Obviously, these types of suggested alternative methodologies would assess other different performance levels of the acquirors, providing a more technical and operational support to the study. Nonetheless, all these methodologies require a high number of information that could be achieved just with the collaboration of the insurance companies involved in the study, but it could represent a useful resource for future improvements in the insurance industry.

Appendixes

Appendix 1 - Categorization of Studies of Acquisition Performance by Performance Metric

This table shows the metrics adopted by several authors during M&A performance studies. Each category of existing measurement is expressed in the columns. The most used ones are ranked as follows: short-term financial performance, accounting performance, and long-term financial performance. Source: What is M&A performance? (Zollo and Meier, 2008).

Reference	Integration Process Performance	Overall Acquisition Performance	Employee Retention	Accounting Performance	Long-Term Financial Performance	Short-Term Financial Performance	Acquisition Survival	Innovation Performance	Others
Agrawal et al., 1992					X				
Ahuja and Katila, 2001								X	
Amit and Livnat, 1988				X					
Anand and Singh, 1997				X					
Barber and Lyon, 1997					X	X			
Beckman and Haunschild,						X			
Berger and Ofek, 1995						X			
Bergh, 2001							X		
Bresman et al., 1999	X								X
Brush, 1996				X					X
Bruton et al., 1994		X							
Buono et al., 1985	X	X							
Cannella and Hambrick, 1993		X		X					
Capon et al., 1988				X					
Capron, 1999	X	X							
Capron and Pistre, 2002						X			
Carow et al., 2004					X	X			
Chang, 1996				X					
Chatterjee, 1986						X			
Chatterjee, 1991						X			
Chatterjee, 1992					X				
Chatterjee et al., 1992						X			
Clark and Ofek, 1994				X	X				
Covin et al., 1997			X						
Datta, 1991	X	X							
Datta and Grant, 1990		X							
DeLong and DeYoung, 2007				X		X			
Eckbo, 1983						X			
Feea and Thomas, 2004				X		X			

Fowler and Schmidt, 1989				X	X				
Franks et al., 1991						X			
Haleblian and Finkelstein,						X			
Hambrick and Cannella, 1993			X						
Harris and Ravenscraft, 1991						X			
Harrison et al., 1991				X					
Harrison et al., 2005					X	X			
Hayward, 2002		X				X			
Hayward and Hambrick, 1997						X			
Heron and Lie, 2002				X					
Hitt et al., 1991								X	
Hitt et al., 1996				X				X	
Hitt et al., 1998				X				X	
Holl and Kyriazis, 1997						X			
Homburg and Bucerius, 2006		X							
Hoskisson et al., 1993				X	X				
Hunt, 1990	X	X							
Jensen and Ruback, 1983						X			
Kapoor and Lim, 2005								X	
Krishnan et al., 1997				X					
Kroll et al., 1997						X			
Krug and Hegarty, 2001			X						
Kusewitt, 1985				X	X				
Lahey and Conn, 1990					X				
Larsson and Finkelstein, 1999	X	X							
Loughran and Vijh, 1997					X				
Lubatkin, 1987					X	X			
Lubatkin et al., 1997					X	X			
Markides and Ittner, 1994									
Moeller et al., 2004									
Montgomery and Wilson,									
Morck et al., 1988									X
Morosini et al., 1998									X
Palich et al., 2000									X
Pangarkar, 2004									
Pennings et al., 1994									
Puranam et al., 2006									
Ramaswamy, 1997									X

Ravenscraft and Scherer,									X
Schweiger and Denisi, 1991					X				
Seth, 1990									
Seth et al., 2002									
Shanley and Correa, 1992		X							
Shelton, 1988									
Shahrur, 2005									
Singh and Montgomery, 1987									X
Slusky and Caves, 1991									
Thakor, 1999									
Travlos, 1987									
Travlos and Waagelein, 1992									
Vermeulen and Barkema,									
Walker, 2000									
Wansley et al., 1983									
Walsh, 1988					X				
Walsh, 1989					X				
Weber, 1996		X							X
Zollo, in press									X
Zollo and Reuer, in press									X
Zollo and Singh, 2004									X
Total	9%	14%	7%	28%	19%	40%	5%	6%	3%

Appendix 2 - Classification of Measures of Merger Performance

The matrix exhibits the M&A performance measures ranked by level of analysis and time horizon, according to Zollo and Meier (2008).

Level of analysis	Time Horizon	
	Short-Term	Long-Term
Task	● Integration process performance ● Knowledge transfer ● Systems conversion	● Customer retention ● Employee retention
Acquisition Firm	● Short-term financial performance (event study)	● Overall acquisition performance ● Acquisition survival ● Accounting performance ● Innovation performance ● Variation in market share ● Long-term financial performance

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Annexes

Annex 1 - Focus Group Firms Sample

This table represents the list of the companies composing the Focus Group. The right column shows the country associated to each firm of the sample.

Company Name	Country
AVIVA PLC	UK
ALLIANZ SE	DE
UNIPOLSAI ASSICURAZIONI SPA	IT
AXA SA	FR
CHESNARA PLC	UK
ASR NEDERLAND NV	NL
POWSZECHNY ZAKLAD UBEZPIECZEN SA	PL
AGEAS SA/NV	BE
HELVETIA HOLDING AG	CH
SAGA PLC	UK
PRUDENTIAL PLC	UK
GJENSIDIGE FORSIKRING ASA	NO
SCOR SE	FR
VIENNA INSURANCE GROUP AG WIENER VERSICHERUNG GRUPPE	AT
UNIQA VERSICHERUNGEN AG	AT
VAUDOISE ASSURANCES HOLDING SA	CH
CIG PANNONIA ELETBIZTOSITO NYRT	HU

Annex 2 - Focus Group Deals Sample

This table shows the acquisitions regarding the Focus Group sample used for the analyses. It exhibits the bidder, the target, their NAICS 2017 codes, and the deals date (announcement and completion).

Acquiror Name	Acquiror NAICS 2017 Code(s)	Target Name	Target NAICS 2017 Code(s)	Announced Date	Completed Date
AVIVA PLC	523910 / 524113 / 524114 / 524126	FRIENDS LIFE GROUP LTD	523910 / 524113	02/12/2014	13/04/2015
ALLIANZ SE	522110 / 523920 / 524113 / 524114 / 524126	EULER HERMES SA	524126	27/11/2017	27/04/2018
UNIPOLSAI ASSICURAZIONI SPA	524113 / 524114 / 524126 / 524127 / 524128 / 524130 / 524210	UNISALUTE SPA	524114	30/06/2017	17/11/2017
ALLIANZ SE	522110 / 523920 / 524113 / 524114 / 524126	YAPI KREDI SIGORTA SA	524114 / 524126	01/10/2014	01/10/2014
UNIPOLSAI ASSICURAZIONI SPA	524113 / 524114 / 524126 / 524127 / 524128 / 524130 / 524210	ARCA VITA SPA	524113	22/03/2018	07/08/2018
AXA SA	524113 / 524114 / 524126 / 524210	SEGUROS COLPATRIA SA	524113 / 524126	11/11/2013	02/04/2014
CHESNARA PLC	524113	LEGAL & GENERAL NEDERLAND LEVENSVVERZEKERING MAATSCHAPPIJ BV	524113	24/11/2016	06/04/2017
UNIPOLSAI ASSICURAZIONI SPA	524113 / 524114 / 524126 / 524127 / 524128 / 524130 / 524210	COMPAGNIA ASSICURATRICE LINEAR SPA	524113 / 524114 / 524126	30/06/2017	17/11/2017
ASR NEDERLAND NV	524113 / 524114 / 524126 / 524128 / 525110	GENERALI NEDERLAND NV	524113 / 524114 / 524126	13/09/2017	06/02/2018
POWSZECHNY ZAKLAD UBEZPIECZEN SA	524126	LINK4 TOWARZYSTWO UBEZPIECZEN SA	524126	17/04/2014	15/09/2014
AXA SA	524113 / 524114 / 524126 / 524210	COMMERCIAL INTERNATIONAL LIFE INSURANCE COMPANY SAE	524113	12/07/2015	30/11/2015
AGEAS SA/NV	524113 / 524114 / 524126 / 524128 / 524130 / 525110	UBI ASSICURAZIONI SPA	524114 / 524126 / 524128	06/08/2014	31/08/2014
UNIQA VERSICHERUNGEN AG	524113 / 524114 / 524126	BASLER OSIGURANJE ZAGREB DD	524113 / 524126	22/10/2013	12/03/2014
CHESNARA PLC	524113	WAARD LEVEN NV	524113	03/12/2014	20/05/2015
ALLIANZ SE	522110 / 523920 / 524113 / 524114 / 524126	PNB LIFE INSURANCE, INC	524113	22/12/2015	06/06/2016
CHESNARA PLC	524113	DIRECT LINE LIFE INSURANCE COMPANY LTD	524113	08/10/2013	28/11/2013
ALLIANZ SE	522110 / 523920 / 524113 / 524114 / 524126	YAPI KREDI SIGORTA SA	524114 / 524126	14/10/2013	02/10/2014
HELVETIA HOLDING AG	524113 / 524114 / 524130 / 525110	CHIARA VITA SPA	524113	19/11/2012	31/01/2013
VIENNA INSURANCE GROUP AG WIENER VERSICHERUNG GRUPPE	524113 / 524114 / 524126	WIENER OSIGURANJE VIENNA INSURANCE GROUP AD	524113 / 524114 / 524126	27/04/2015	28/04/2015
GJENSIDIGE FORSIKRING ASA	522120 / 524114 / 524126 / 524128 / 524210 / 525110	GJENSIDIGES ARBEJDSKADEFORSIKRING A/S	524114 / 524126	07/03/2012	02/09/2013
VIENNA INSURANCE GROUP AG WIENER VERSICHERUNG GRUPPE	524113 / 524114 / 524126	KJUBI MAKEDONIJA AD	524114 / 524126	01/03/2013	09/04/2013
VIENNA INSURANCE GROUP AG WIENER VERSICHERUNG GRUPPE	524113 / 524114 / 524126	AXA BIZTOSITO ZRT	524113	23/12/2013	03/06/2014
SAGA PLC	511120 / 522210 / 524113 / 524114 / 524126 / 541199 / 561510	DESTINOLOGY LTD	561510	13/08/2014	13/08/2014
PRUDENTIAL PLC VIENNA INSURANCE GROUP AG WIENER VERSICHERUNG GRUPPE	523920 / 524113 / 524114 / 524126 / 524128 / 524298 / 525110	SHIELD ASSURANCE COMPANY LTD	524113	16/09/2014	16/09/2014
PRUDENTIAL PLC VIENNA INSURANCE GROUP AG WIENER VERSICHERUNG GRUPPE	524113 / 524114 / 524126 / 524126 / 524128 / 524298 / 525110	AXA NEZIVOTNO OSIGURANJE ADO	524114 / 524126	07/07/2016	30/11/2016
PRUDENTIAL PLC VIENNA INSURANCE GROUP AG WIENER VERSICHERUNG GRUPPE	524113 / 524114 / 524126	GOLDSTAR LIFE ASSURANCE CO. LTD	524113 / 524114	05/07/2015	05/07/2015
VAUDOISE ASSURANCES HOLDING SA	524113 / 524114 / 524126 / 524128	BTA BALTIC INSURANCE COMPANY AAS	524113 / 524114 / 524126	18/12/2015	24/08/2016
CIG PANNONIA ELETBIZTOSITO NYRT	524113 / 524114	ANIMALIA SA	524128	23/03/2016	01/06/2016
SCOR SE	524130	MKB ELETBIZTOSITO ZRT	524113 / 524114	07/10/2016	24/03/2017
VIENNA INSURANCE GROUP AG WIENER VERSICHERUNG GRUPPE	524113 / 524114 / 524126	MUTRE SA	524130	17/07/2017	14/09/2017
PRUDENTIAL PLC	523920 / 524113 / 524114 / 524126 / 524128 / 524298 / 525110	MERKUR BH OSIGURANJE DD	524113 / 524114 / 524126	30/10/2017	08/02/2018
GJENSIDIGE FORSIKRING ASA	522120 / 524114 / 524126 / 524128 / 524210 / 525110	EXPRESS LIFE INSURANCE COMPANY LTD	524113	05/12/2013	05/12/2013
AVIVA PLC	523910 / 524113 / 524114 / 524126	MONDUX ASSURANCE AGENTUR A/S	524210	07/01/2015	30/06/2015
		CTTISCENE DEVELOPMENTS LTD	551114	06/01/2016	06/01/2016

Annex 3 - Conglomeration Group Firms Sample

This table represents the list of the companies composing the Conglomeration Group. The right column shows the country associated to each firm of the sample.

Company Name	Country
LEGAL & GENERAL GROUP PLC	UK
SWISS LIFE HOLDING AG	CH
AEGON NV	NL
AXA SA	FR
HELVETIA HOLDING AG	CH
SCOR SE	FR
POWSZECHNY ZAKLAD UBEZPIECZEN SA	PL
ASSICURAZIONI GENERALI SPA	IT
TALANX AG	DE
AVIVA PLC	UK
CIG PANNONIA ELETBIZTOSITO NYRT	HU
VAUDOISE ASSURANCES HOLDING SA	CH
ZURICH INSURANCE GROUP AG	CH
JUST GROUP PLC	UK
DIRECT LINE INSURANCE GROUP PLC	UK
GRUPO CATALANA OCCIDENTE SA	ES
TRYG A/S	DK
SOCIETA CATTOLICA DI ASSICURAZIONE SC	IT
MAPFRE SA	ES
ALLIANZ SE	DE
GJENSIDIGE FORSIKRING ASA	NO
VIENNA INSURANCE GROUP AG WIENER VERSICHERUNG GRUPPE	AT

Annex 4 - Conglomeration Group Deals Sample

This table shows the acquisitions regarding the Conglomeration Group sample used for the analyses. It exhibits the bidder, the target, their NAICS 2017 codes, and the deals date (announcement and completion).

Acquiror Name	Acquiror NAICS 2017 Code(s)	Target Name	Target NAICS 2017 Code(s)	Announced Date	Completed Date
AXA SA	524113 / 524114 / 524126 / 524210	XL GROUP LTD	524126 / 524130	05/03/2018	13/09/2018
HELVETIA HOLDING AG	524113 / 524114 / 524130 / 525110	SCHWEIZERISCHE NATIONAL-VERSICHERUNGS-GESELLSCHAFT AG	524113 / 524114 / 524126 / 524128	07/07/2014	20/10/2014
TRYG A/S	524114 / 524126	ALKA FORSIKRING A/S	524113 / 524114 / 524126 / 524128	04/12/2017	08/11/2018
AXA SA	524113 / 524114 / 524126 / 524210	GENWORTH FINANCIAL EUROPEAN GROUP HOLDINGS LTD	524128	02/12/2015	02/12/2015
GRUPO CATALANA OCCIDENTE SA	524113 / 524126 / 524128 / 524130	PLUS ULTRA SEGUROS GENERALES Y VIDA SA DE SEGUROS Y REASEGUROS	524113 / 524114 / 524126 / 524127 / 524128 / 524130	29/05/2015	19/06/2015
AXA SA	524113 / 524114 / 524126 / 524210	ASSUR AFRICA HOLDING LTD	524113 / 524114 / 524126 / 524127 / 524128 / 524130 / 524210 / 524298	28/11/2014	08/12/2014
SOCIETA CATTOLICA DI ASSICURAZIONE SC	522110 / 524113 / 524114 / 524126	FATA ASSICURAZIONI DANNI SPA	524113 / 524114 / 524126 / 524128	20/11/2013	11/06/2014
POWSZECHNY ZAKLAD UBEZPIECZEN SA	524126	LIETUVOS DRAUDIMAS AB	524113 / 524114 / 524126	17/04/2014	31/10/2014
MAPFRE SA	524113 / 524114 / 524126 / 524128	ASEGURADORA VALENCIANA SA DE SEGUROS Y REASEGUROS	524210	31/01/2014	30/10/2014
HELVETIA HOLDING AG	524113 / 524114 / 524130 / 525110	BASLER VERSICHERUNGS-AG	524114 / 524126 / 524128	15/05/2014	29/08/2014
GRUPO CATALANA OCCIDENTE SA	524113 / 524126 / 524128 / 524130	PREVISORA BILBAINA SEGUROS SA	524210	06/04/2016	03/10/2016
ALLIANZ SE	522110 / 523920 / 524113 / 524114 / 524126	JANASHAKTHI GENERAL INSURANCE LTD	524114 / 524126 / 524128	02/02/2018	26/02/2018
GJENSIDIGE FORSIKRING ASA	522120 / 524114 / 524126 / 524128 / 524210 / 525110	PZU LIETUVA UAB DK	524113 / 524114 / 524126 / 524128	03/02/2015	30/09/2015
POWSZECHNY ZAKLAD UBEZPIECZEN SA	524126	BALTA AAS	524114 / 524126 / 524128	17/04/2014	30/06/2014
HELVETIA HOLDING AG	524113 / 524114 / 524130 / 525110	SCHWEIZERISCHE NATIONAL-VERSICHERUNGS-GESELLSCHAFT AG	524113 / 524114 / 524126 / 524128	23/10/2014	23/10/2014
HELVETIA HOLDING AG	524113 / 524114 / 524130 / 525110	CHIARA ASSICURAZIONI SPA	524126	27/12/2016	27/12/2016
VIENNA INSURANCE GROUP AG WIENER VERSICHERUNG GRUPPE	524113 / 524114 / 524126	SOCIETATEA DE ASIGURARI-REASIGURARI DONARIS GROUP SA	524113 / 524114 / 524126 / 524128 / 524130	31/01/2014	03/04/2014
VIENNA INSURANCE GROUP AG WIENER VERSICHERUNG GRUPPE	524113 / 524114 / 524126	WINNER LIFE - VIENNA INSURANCE GROUP JSC	524114 / 524126 / 524128	20/03/2013	20/03/2013
ASSICURAZIONI GENERALI SPA	524113 / 524114 / 524126	ZAD VICTORIA AD	524113 / 524114 / 524126 / 524128	07/11/2014	07/11/2014
POWSZECHNY ZAKLAD UBEZPIECZEN SA	524126	LIETUVOS DRAUDIMAS AB	524113 / 524114 / 524126	03/12/2014	03/12/2014
VIENNA INSURANCE GROUP AG WIENER VERSICHERUNG GRUPPE	524113 / 524114 / 524126	BALTIKUMS AAS	524114 / 524126 / 524128	29/07/2015	27/10/2015
ZURICH INSURANCE GROUP AG	522310 / 523930 / 524113 / 524114 / 524126 / 525110 / 561499	MEDITERRANEO SEGUROS DIVERSOS COMPANIA DE SEGUROS Y REASEGUROS SA	524113 / 524114 / 524126 / 524128	31/12/2014	31/12/2014
VIENNA INSURANCE GROUP AG WIENER VERSICHERUNG GRUPPE	524113 / 524114 / 524126	SKANDIA ZYCIE TOWARZYSTWO UBEZPIECZEN SA	524210	12/11/2013	30/05/2014
SCOR SE	524130	CFDP ASSURANCES SA	524126 / 524128	21/12/2016	21/12/2016
LEGAL & GENERAL GROUP PLC	523920 / 524113 / 524114 / 524126	CALA GROUP LTD	236115 / 236116	13/03/2018	13/03/2018
SWISS LIFE HOLDING AG	523920 / 524113 / 525110	CORPUS SIREO HOLDING GMBH	523120 / 523910 / 523920	13/08/2014	13/08/2014
AEGON NV	522310 / 523920 / 524113 / 524126 / 525110	COFUND LTD	523930	11/08/2016	03/01/2017
LEGAL & GENERAL GROUP PLC	523920 / 524113 / 524114 / 524126	COFUND HOLDINGS LTD	518210	26/03/2013	23/05/2013
AXA SA	524113 / 524114 / 524126 / 524210	MAESTRO HEALTHCARE TECHNOLOGY INC.	525120	22/01/2018	27/02/2018
HELVETIA HOLDING AG	524113 / 524114 / 524130 / 525110	MONEYPARK AG	518210 / 522310 / 523930	16/12/2016	16/12/2016
LEGAL & GENERAL GROUP PLC	523920 / 524113 / 524114 / 524126	RENAISSANCE VILLAGES LTD	531210	14/11/2017	14/11/2017
LEGAL & GENERAL GROUP PLC	523920 / 524113 / 524114 / 524126	NEW LIFE HOME FINANCE LTD	522310	13/02/2015	01/04/2015
SCOR SE	524130	PRESSES UNIVERSITAIRES DE FRANCE SA	511130	20/01/2014	10/04/2014
POWSZECHNY ZAKLAD UBEZPIECZEN SA	524126	ORLEN MEDICA SP ZOO	621111	14/05/2014	14/05/2014
POWSZECHNY ZAKLAD UBEZPIECZEN SA	524126	SPECJALISTYCZNA PRZYCHODNIA PRZEMYSLOWA PROF-MED SP ZOO	621111	14/05/2014	14/05/2014
ASSICURAZIONI GENERALI SPA	524113 / 524114 / 524126	CITYLIFE SPA	237210	21/07/2014	21/07/2014
TALANX AG	524113 / 524114 / 524126	TULLNAU CARREE GMBH	531120	23/09/2014	23/09/2014
AVIVA PLC	523910 / 524113 / 524114 / 524126	EXPANDER ADVISORS SP ZOO	523930	19/05/2015	03/07/2015
ASSICURAZIONI GENERALI SPA	524113 / 524114 / 524126	MYDRIVE SOLUTIONS LTD	517410	23/07/2015	23/07/2015
CIG PANNONIA ELETTBIZTOSITO NYRT	524113 / 524114	PANNONIA PI-E-TA KEGYELETI SZOLGALTATO KFT	812210	05/06/2015	05/06/2015
SWISS LIFE HOLDING AG	523920 / 524113 / 525110	SOBRADO SOFTWARE AG	511210 / 541511	29/09/2015	29/09/2015

VAUDOISE ASSURANCES HOLDING SA	524113 / 524114 / 524126 / 524128	DR MEYER ASSET MANAGEMENT AG	523920	27/03/2017	03/07/2017
ZURICH INSURANCE GROUP AG	522310 / 523930 / 524113 / 524114 / 524126 / 525110 / 561499	H4B HUMBOLDTHAFEN EINHEITSGESELLSCHAFT GMBH & CO KG	531311 / 531312	20/10/2016	20/10/2016
SWISS LIFE HOLDING AG	523920 / 524113 / 525110	BEOS AG	531312	25/06/2018	31/08/2018
JUST GROUP PLC	522291 / 523930 / 524113	CORINTHIAN GROUP LTD	524292	17/08/2018	17/08/2018
ASSICURAZIONI GENERALI SPA	524113 / 524114 / 524126	CM INVESTMENT SOLUTIONS LTD	523920	30/11/2018	30/11/2018
ZURICH INSURANCE GROUP AG	522310 / 523930 / 524113 / 524114 / 524126 / 525110 / 561499	BRIGHT BOX HK LTD	518210	22/12/2017	22/12/2017
DIRECT LINE INSURANCE GROUP PLC	524114 / 524126	FLOOW LTD, THE	511210 / 518210	08/07/2014	08/07/2014
SWISS LIFE HOLDING AG	523920 / 524113 / 525110	FINCENTRUM AS	523930	04/09/2018	22/10/2018
GRUPO CATALANA OCCIDENTE SA	524113 / 524126 / 524128 / 524130	FUNERARIA NUESTRA SENORA DE LOS REMEDIOS SL	812210	23/04/2018	23/04/2018

Annex 5 - Partially Diversified Group Firms Sample

This table represents the list of the companies composing the Partially Diversified Group. The right column shows the country associated to each firm of the sample.

Company Name	Country
AXA SA	FR
HELVETIA HOLDING AG	CH
TRYG A/S	DK
GRUPO CATALANA OCCIDENTE SA	ES
SOCIETA CATTOLICA DI ASSICURAZIONE SC	IT
POWSZECHNY ZAKLAD UBEZPIECZEN SA	PL
MAPFRE SA	ES
ALLIANZ SE	DE
GJENSIDIGE FORSIKRING ASA	NO
VIENNA INSURANCE GROUP AG WIENER VERSICHERUNG GRUPPE	AT
ASSICURAZIONI GENERALI SPA	IT
ZURICH INSURANCE GROUP AG	CH
SCOR SE	FR

Annex 6 - Partially Diversified Group Deals Sample

This table shows the acquisitions regarding the Partially Diversified Group sample used for the analyses. It exhibits the bidder, the target, their NAICS 2017 codes, and the deals date (announcement and completion).

Acquiror Name	Acquiror NAICS 2017 Code(s)	Target Name	Target NAICS 2017 Code(s)	Announced Date	Completed Date
AXA SA	524113 / 524114 / 524126 / 524210	XL GROUP LTD	524126 / 524130	05/03/2018	13/09/2018
HELVETIA HOLDING AG	524113 / 524114 / 524130 / 525110	SCHWEIZERISCHE NATIONAL-VERSICHERUNGS-GESELLSCHAFT AG	524113 / 524114 / 524126 / 524128	07/07/2014	20/10/2014
TRYG A/S	524114 / 524126	ALKA FORSIKRING A/S	524113 / 524114 / 524126 / 524128	04/12/2017	08/11/2018
AXA SA	524113 / 524114 / 524126 / 524210	GENWORTH FINANCIAL EUROPEAN GROUP HOLDINGS LTD	524128	02/12/2015	02/12/2015
GRUPO CATALANA OCCIDENTE SA	524113 / 524126 / 524128 / 524130	PLUS ULTRA SEGUROS GENERALES Y VIDA SA DE SEGUROS Y REASEGUROS	524113 / 524114 / 524126 / 524127 / 524128 / 524130	29/05/2015	19/06/2015
AXA SA	524113 / 524114 / 524126 / 524210	ASSUR AFRICA HOLDING LTD	524113 / 524114 / 524126 / 524127 / 524128 / 524130 / 524210 / 524298	28/11/2014	08/12/2014
SOCIETA CATTOLICA DI ASSICURAZIONE SC	522110 / 524113 / 524114 / 524126	FATA ASSICURAZIONI DANNI SPA	524113 / 524114 / 524126 / 524128	20/11/2013	11/06/2014
POWSZECHNY ZAKLAD UBEZPIECZEN SA	524126	LIETUVOS DRAUDIMAS AB	524113 / 524114 / 524126	17/04/2014	31/10/2014
MAPFRE SA	524113 / 524114 / 524126 / 524128	ASEGURADORA VALENCIANA SA DE SEGUROS Y REASEGUROS	524210	31/01/2014	30/10/2014
HELVETIA HOLDING AG	524113 / 524114 / 524130 / 525110	BASLER VERSICHERUNGS-AG	524114 / 524126 / 524128	15/05/2014	29/08/2014
GRUPO CATALANA OCCIDENTE SA	524113 / 524126 / 524128 / 524130	PREVISORA BILBAINA SEGUROS SA	524210	06/04/2016	03/10/2016
ALLIANZ SE	522110 / 523920 / 524113 / 524114 / 524126	JANASHAKTHI GENERAL INSURANCE LTD	524114 / 524126 / 524128	02/02/2018	26/02/2018
GJENSIDIGE FORSIKRING ASA	522120 / 524114 / 524126 / 524128 / 524210 / 525110	PZU LIETUVA UAB DK	524113 / 524114 / 524126 / 524128	03/02/2015	30/09/2015
POWSZECHNY ZAKLAD UBEZPIECZEN SA	524126	BALTA AAS	524114 / 524126 / 524128	17/04/2014	30/06/2014
HELVETIA HOLDING AG	524113 / 524114 / 524130 / 525110	SCHWEIZERISCHE NATIONAL-VERSICHERUNGS-GESELLSCHAFT AG	524113 / 524114 / 524126 / 524128	23/10/2014	23/10/2014
HELVETIA HOLDING AG	524113 / 524114 / 524130 / 525110	CHIARA ASSICURAZIONI SPA	524126	27/12/2016	27/12/2016
VIENNA INSURANCE GROUP AG WIENER VERSICHERUNG GRUPPE	524113 / 524114 / 524126	SOCIETATEA DE ASIGURARI-REASIGURARI DONARIS GROUP SA	524113 / 524114 / 524126 / 524128 / 524130	31/01/2014	03/04/2014
VIENNA INSURANCE GROUP AG WIENER VERSICHERUNG GRUPPE	524113 / 524114 / 524126	WINNER LIFE - VIENNA INSURANCE GROUP JSC	524114 / 524126 / 524128	20/03/2013	20/03/2013
ASSICURAZIONI GENERALI SPA	524113 / 524114 / 524126	ZAD VICTORIA AD	524113 / 524114 / 524126 / 524128	07/11/2014	07/11/2014
POWSZECHNY ZAKLAD UBEZPIECZEN SA	524126	LIETUVOS DRAUDIMAS AB	524113 / 524114 / 524126	03/12/2014	03/12/2014
VIENNA INSURANCE GROUP AG WIENER VERSICHERUNG GRUPPE	524113 / 524114 / 524126	BALTIKUMS AAS	524114 / 524126 / 524128	29/07/2015	27/10/2015
ZURICH INSURANCE GROUP AG	522310 / 523930 / 524113 / 524114 / 524126 / 525110 / 561499	MEDITERRANEO SEGUROS DIVERSOS COMPANIA DE SEGUROS Y REASEGUROS SA	524113 / 524114 / 524126 / 524128	31/12/2014	31/12/2014
VIENNA INSURANCE GROUP AG WIENER VERSICHERUNG GRUPPE	524113 / 524114 / 524126	SKANDIA ZYCIE TOWARZYSTWO UBEZPIECZEN SA	524210	12/11/2013	30/05/2014
SCOR SE	524130	CFDP ASSURANCES SA	524126 / 524128	21/12/2016	21/12/2016

Annex 7 - Totally Diversified Group Firms Sample

This table represents the list of the companies composing the Totally Diversified Group. The right column shows the country associated to each firm of the sample.

Company Name	Country
LEGAL & GENERAL GROUP PLC	UK
SWISS LIFE HOLDING AG	CH
AEGON NV	NL
AXA SA	FR
HELVETIA HOLDING AG	CH
SCOR SE	FR
POWSZECHNY ZAKLAD UBEZPIECZEN SA	PL
ASSICURAZIONI GENERALI SPA	IT
TALANX AG	DE
AVIVA PLC	UK
CIG PANNONIA ELETBIZTOSITO NYRT	HU
VAUDOISE ASSURANCES HOLDING SA	CH
ZURICH INSURANCE GROUP AG	CH
JUST GROUP PLC	UK
DIRECT LINE INSURANCE GROUP PLC	UK
GRUPO CATALANA OCCIDENTE SA	ES

Annex 8 - Totally Diversified Group Deals Sample

This table shows the acquisitions regarding the Totally Diversified Group sample used for the analyses. It exhibits the bidder, the target, their NAICS 2017 codes, and the deals date (announcement and completion).

Acquiror Name	Acquiror NAICS 2017 Code(s)	Target Name	Target NAICS 2017 Code(s)	Announced Date	Completed Date
LEGAL & GENERAL GROUP PLC	523920 / 524113 / 524114 / 524126	CALA GROUP LTD	236115 / 236116	13/03/2018	13/03/2018
SWISS LIFE HOLDING AG	523920 / 524113 / 525110	CORPUS SIREO HOLDING GMBH	523120 / 523910 / 523920	13/08/2014	13/08/2014
AEGON NV	522310 / 523920 / 524113 / 524126 / 525110	COFUNDS LTD	523930	11/08/2016	03/01/2017
LEGAL & GENERAL GROUP PLC	523920 / 524113 / 524114 / 524126	COFUNDS HOLDINGS LTD	518210	26/03/2013	23/05/2013
AXA SA	524113 / 524114 / 524126 / 524210	MAESTRO HEALTHCARE TECHNOLOGY INC.	525120	22/01/2018	27/02/2018
HELVETIA HOLDING AG	524113 / 524114 / 524130 / 525110	MONEYPARK AG	518210 / 522310 / 523930	16/12/2016	16/12/2016
LEGAL & GENERAL GROUP PLC	523920 / 524113 / 524114 / 524126	RENAISSANCE VILLAGES LTD	531210	14/11/2017	14/11/2017
LEGAL & GENERAL GROUP PLC	523920 / 524113 / 524114 / 524126	NEW LIFE HOME FINANCE LTD	522310	13/02/2015	01/04/2015
SCOR SE	524130	PRESSES UNIVERSITAIRES DE FRANCE SA	511130	20/01/2014	10/04/2014
POWSZECHNY ZAKŁAD UBEZPIECZEN SA	524126	ORLEN MEDICA SP ZOO	621111	14/05/2014	14/05/2014
POWSZECHNY ZAKŁAD UBEZPIECZEN SA	524126	SPECJALISTYCZNA PRZYZODNIA PRZEMYSŁOWA PROF-MED SP ZOO	621111	14/05/2014	14/05/2014
ASSICURAZIONI GENERALI SPA	524113 / 524114 / 524126	CITYLIFE SPA	237210	21/07/2014	21/07/2014
TALANX AG	524113 / 524114 / 524126	TULLNAU CARREE GMBH	531120	23/09/2014	23/09/2014
AVIVA PLC	523910 / 524113 / 524114 / 524126	EXPANDER ADVISORS SP ZOO	523930	19/05/2015	03/07/2015
ASSICURAZIONI GENERALI SPA	524113 / 524114 / 524126	MYDRIVE SOLUTIONS LTD	517410	23/07/2015	23/07/2015
CIG PANNONIA ELETTBIZTOSITO NYRT	524113 / 524114	PANNONIA PI-ETA KEGYELETI SZOLGALTATO KFT	812210	05/06/2015	05/06/2015
SWISS LIFE HOLDING AG	523920 / 524113 / 525110	SOBRADO SOFTWARE AG	511210 / 541511	29/09/2015	29/09/2015
VAUDOISE ASSURANCES HOLDING SA	524113 / 524114 / 524126 / 524128	DR MEYER ASSET MANAGEMENT AG	523920	27/03/2017	03/07/2017
ZURICH INSURANCE GROUP AG	522310 / 523930 / 524113 / 524114 / 524126 / 525110 / 561499	H4B HUMBOLDTHAFEN EINHEITSGESELLSCHAFT GMBH & CO KG	531311 / 531312	20/10/2016	20/10/2016
SWISS LIFE HOLDING AG	523920 / 524113 / 525110	BEOS AG	531312	25/06/2018	31/08/2018
JUST GROUP PLC	522291 / 523930 / 524113	CORINTHIAN GROUP LTD	524292	17/08/2018	17/08/2018
ASSICURAZIONI GENERALI SPA	524113 / 524114 / 524126	CM INVESTMENT SOLUTIONS LTD	523920	30/11/2018	30/11/2018
ZURICH INSURANCE GROUP AG	522310 / 523930 / 524113 / 524114 / 524126 / 525110 / 561499	BRIGHT BOX HK LTD	518210	22/12/2017	22/12/2017
DIRECT LINE INSURANCE GROUP PLC	524114 / 524126	FLOOW LTD, THE	511210 / 518210	08/07/2014	08/07/2014
SWISS LIFE HOLDING AG	523920 / 524113 / 525110	FINCENTRUM AS	523930	04/09/2018	22/10/2018
GRUPO CATALANA OCCIDENTE SA	524113 / 524126 / 524128 / 524130	FUNERARIA NUESTRA SEÑORA DE LOS REMEDIOS SL	812210	23/04/2018	23/04/2018