

POLITECNICO DI MILANO  
Facoltà di Ingegneria dei Sistemi  
Dipartimento di Ingegneria Gestionale

Mergers and Acquisitions in Italy: the  
analysis of value creation in the long-run



Relatore:  
Professor Giancarlo GIUDICI

Correlatore:  
Professor Giuseppe SCCELLATO

Tesi di Laurea Magistrale di  
Giacomo Maria BRESSA Matr. 763617  
Giantommaso D'ASTOLTO Matr. 762711



# Contents

Ringraziamenti.....	8
Abstract.....	9
Abstract.....	10
Sommario.....	11
1. M&A TRANSACTIONS.....	14
1.1 What M&A transactions are (and what they are not).....	14
1.1.1 Definitions of M&As.....	15
1.1.2 Types of M&As .....	20
1.1.3 Defensive strategies .....	23
1.1.4 Methods of payment and market expectations.....	28
1.1.5 Evaluation of an acquisition.....	33
1.2 Waves in M&A history.....	37
1.2.1 M&As in the U.S.....	37
1.2.2 M&As in Italy.....	41
1.3 Reasons for M&A.....	44
1.3.1 Shareholders perspective.....	45
1.3.2 Management perspective.....	48
1.4 The Italian market.....	51
1.4.1 Peculiarities of Italian firms .....	52
1.4.2 Peculiarities of Italian industry .....	55
2. DOES M&A CREATE VALUE? .....	59
2.1 The metrics.....	60
2.1.1 Possible accounting biases .....	62
2.2 The predictors.....	63
2.2.1 Method of payment.....	64
2.2.2 Acquisition accounting method .....	65
2.2.4 Corporate focus.....	66
2.2.5 Friendly vs. Hostile acquirers .....	67

2.2.6	Relative size of bidder and target .....	68
2.2.7	Price-to-book ratio.....	69
2.3	Cultural aspects .....	70
2.4	Empirical evidence .....	71
3.	THE ANALYSIS.....	76
3.1	The sample (cross-sectional dataset).....	76
3.1.1	Period of analysis.....	76
3.1.2	Industries of interest .....	77
3.1.3	Metrics .....	78
3.1.4	Benchmarks.....	82
3.2	The methodology .....	84
3.3	The results .....	85
3.4	The Regression analysis .....	88
3.4.1	Regression findings .....	91
4.	CASE STUDIES.....	96
4.1.	Poltrona Frau-Cassina.....	96
4.1.1	Poltrona Frau S.p.A.....	96
4.1.2	Cassina S.p.A.....	98
4.1.3	Deal characteristics .....	99
4.1.4	Operational Results.....	100
4.1.5	Conclusions.....	103
4.2	Granarolo - Yomo .....	104
4.2.1	Granarolo S.p.A.....	104
4.2.2	Yomo S.p.A.....	105
4.2.3	Deal characteristics .....	106
4.2.4	Operational Results.....	108
4.2.4	Conclusions.....	112
4.3	Fintyre.....	112
4.3.1	History.....	113
4.3.2	The plan.....	114
4.3.3	Follow-up .....	116

4.3.3 Operational Results.....	117
5. CONCLUSIONS.....	119
References .....	122

## Tables

Table 1: Sample distribution by effective date and acquisition typology .....	128
Table 2: Sample distribution by Industry classification.....	129
Table 3: Sample cross distribution of target and acquirer's sectors .....	131
Table 4: Sample distribution by Value of transactions (million Euro).....	132
Table 5: Acquirer's mean and median Industry adjusted Revenues from Sales.	133
Table 6: Target's mean and median Industry adjusted Revenues from Sales.....	134
Table 7: Acquirer's mean and median Industry adjusted EBITDA.....	135
Table 8: Target's mean and median Industry adjusted EBITDA.....	136
Table 9: Acquirer's mean and median Industry adjusted EBITDA/Sales .....	137
Table 10: Target's mean and median Industry adjusted EBITDA/Sales.....	138
Table 11: Acquirer's and median Industry adjusted Net Financial Position.....	139
Table 12: Target's mean and median Industry adjusted Net Financial Position.	140
Table 13: Acquirer's mean and median Industry adjusted Op. Cash Flows .....	141
Table 14: Target's mean and median Industry adjusted Op. Cash Flows .....	142
Table 15: Acquirer's mean and median Industry adjusted ROS.....	143
Table 16: Target's mean and median Industry adjusted ROS.....	144
Table 17: Acquirer's mean and median Industry adjusted Costs of Start-up and Expansion.....	145
Table 18: Target's mean and median Industry adjusted Costs of Start-up and Expansion.....	146
Table 19: Acquirer's mean and median Industry adjusted Costs of Research and Advertising.....	147
Table 20: Target's mean and median Industry adjusted Costs of Research and Advertising.....	148
Table 21: Acquirer's mean and median Industry adjusted ROI.....	149
Table 22: Target's mean and median Industry adjusted ROI.....	150

Table 23: Acquirer’s mean and median Industry adjusted Number of Employees .....	151
Table 24: Target’s mean and median Industry adjusted Number of Employees	152
Table 25: Acquirer’s mean and median Industry adjusted Solvency Ratio .....	153
Table 26: Target’s mean and median Industry adjusted Solvency Ratio .....	154
Table 27: Multivariate Ordinary Least Squares (OLS) Analysis .....	155
Table 28: Multivariate Ordinary Least Squares (OLS) descriptions.....	157

## Charts

Chart 1: Acquirer’s mean and median Industry adjusted Revenues from Sales .	133
Chart 2: Target’s mean and median Industry adjusted Revenues from Sales .....	134
Chart 3: Acquirer’s mean and median Industry adjusted EBITDA.....	135
Chart 4: Target’s mean and median Industry adjusted EBITDA.....	136
Chart 5: Acquirer’s mean and median Industry adjusted EBITDA/Sales .....	137
Chart 6: Target’s mean and median Industry adjusted EBITDA/Sales .....	138
Chart 7: Acquirer’s mean and median Industry adjusted Net Financial Position	139
Chart 8: Target’s mean and median Industry adjusted Net Financial Position...	140
Chart 9: Acquirer’s mean and median Industry adjusted Op. Cash Flows.....	141
Chart 10: Target’s mean and median Industry adjusted Op. Cash Flows .....	142
Chart 11: Acquirer’s mean and median Industry adjusted ROS .....	143
Chart 12: Target’s mean and median Industry adjusted ROS .....	144
Chart 13: Acquirer’s mean and median Industry adjusted Costs of Start-up and Expansion.....	145
Chart 14: Target’s mean and median Industry adjusted Costs of Start-up and Expansion.....	145
Chart 15: Acquirer’s mean and median Industry adjusted Costs of Research and Advertising.....	147
Chart 16: Target’s mean and median Industry adjusted Costs of Research and Advertising.....	148
Chart 17: Acquirer’s mean and median Industry adjusted ROI.....	149
Chart 18: Target’s mean and median Industry adjusted ROI.....	150

Chart 19: Acquirer's mean and median Industry adjusted No. of Employees....	151
Chart 20: Target's mean and median Industry adjusted No. of Employees.....	152
Chart 21: Acquirer's mean and median Industry adjusted Solvency Ratio.....	153
Chart 22: Target's mean and median Industry adjusted Solvency Ratio.....	154

## **Ringraziamenti**

Vorremmo ringraziare il Professor Giudici, per averci guidato nella stesura di questa tesi, per la sua costante disponibilità dimostrataci, e per averci accompagnato con fiducia fino a questo traguardo.



## **Abstract**

La seguente tesi verte sul tema delle M&A e sulle opportunità di creazione di valore derivanti da esse, con un particolare focus sulle più recenti transazioni nel mercato italiano. Per raggiungere tale scopo, è stato analizzato un campione di 596 deal (per un totale di 1.148 imprese), negli anni compresi tra il 2004 e il 2009, riguardanti soltanto le transazioni i cui partecipanti erano entrambi italiani. Tutti i settori sono stati inseriti nello studio, fatta eccezione dei Servizi Finanziari, delle Imprese Pubbliche e delle Utility. Infine 6 diversi modelli di regressione lineare sono stati utilizzati per osservare l'incidenza di alcune caratteristiche del deal sulla creazione di valore finale, dal punto di vista della compagnia acquirente.

## **Abstract**

The following thesis deals with the topic of M&As and the value creation opportunities deriving from it, with a particular focus on the latest transactions in the Italian market.

In order to reach such a goal, a sample of 596 deals, regarding only the transactions whose participants were both Italian-based (for a total of 1.148 companies) within the years 2004 and 2009, has been analysed. All the industries have been inserted, except for Financial Services, Government and Utilities.

Lastly, 6 different OLS regressions have been run in order to observe the impact of some of the deal features on the final value creation, under the acquirer's perspective.

## Sommario

Quello che ci spinge a trattare il tema delle fusioni e acquisizioni, in un periodo di prolungata crisi come quello che il nostro paese sta vivendo negli ultimi anni, è la convinzione che questo tipo di transazioni non sia influenzato da mode passeggere e che, ogni volta che una nuova ondata di M&A si conclude, possiamo essere certi che in futuro ce ne sarà una nuova e di maggiori dimensioni.

Inoltre il tema offre ampi spunti di riflessione, dal momento che nella letteratura in materia non è possibile osservare una convergenza di opinioni sulle potenzialità di creazione di valore intrinseche nelle operazioni di M&A.

Se questo non dovesse bastare a giustificare l'importanza dell'argomento, riportiamo qui di seguito uno stralcio tratto da un articolo del "The Economist", datato 18 Maggio 2012, a testimonianza dell'attualità del soggetto del nostro studio: "[...] le condizioni per una perfetta ondata di acquisizioni si stanno allineando. Uno shock globale ha colpito la maggior parte dei settori e c'è abbondanza di capacità inutilizzata. Molte attività, in particolare in Europa, si trovano di fronte ad una deregolamentazione, dato che le economie più in ritardo cercano di stimolare la loro competitività attraverso riforme strutturali. L'impulso ad acquisire è lì. Molte imprese sono già sedute sopra pile di denaro".

Questa tesi si propone di valutare se e in che misura sia possibile creare valore tramite operazioni di fusione ed acquisizione. I risultati contrastanti provenienti dalla letteratura in materia ci suggeriscono che non esistono risposte ovvie alla domanda e che, probabilmente, i fattori che influenzano il processo sono talmente numerosi da non poter permettere una generalizzazione dei risultati.

Infatti, come affermato da McGrath (McGrath, 2011), il completamento della transazione è solo un passaggio intermedio nell'intero processo di acquisizione e la maggior parte dei fallimenti avviene a trattativa conclusa, poiché l'integrazione non è mai banale. Quello che accade è che anche le transazioni che in teoria potrebbero

sfruttare ampie sinergie, nella pratica falliscono a causa di alcuni fattori difficili da identificare, se ci si limita ad osservare i bilanci societari.

Gli studi precedenti hanno utilizzato due diverse strade per valutare le performance societarie e gli eventuali miglioramenti dovuti alle transazioni M&A.

Il primo metodo consiste nell'osservare i valori azionari, prima e dopo l'annuncio dell'interesse da parte dell'acquirente. L'idea alla base di questo approccio è che un mercato efficiente possa valutare correttamente le potenziali sinergie risultanti dall'acquisizione e reagisca coerentemente alle sue aspettative.

La seconda metodologia, invece, prevede la valutazione delle performance pre e post acquisizione utilizzando delle metriche basate su valori di bilancio delle due aziende coinvolte e applicandone, in seguito, una correzione relativa ai rispettivi benchmark.

Il nostro studio seguirà il secondo filone in materia, in modo da adeguarsi al meglio alle caratteristiche del nostro campione. Infatti, la maggior parte delle imprese da noi analizzate non è quotata in alcun mercato finanziario, per cui nessun valore azionario sarebbe stato disponibile per valutarne le performance.

In seguito, la nostra analisi si concentrerà sulla valutazione in dettaglio delle caratteristiche dei deal e di come queste impattino sulla creazione finale di valore. Come già menzionato, tutti i risultati ottenuti nel lavoro sono da considerarsi all'interno del contesto di riferimento. Le conclusioni che ne derivano verranno supportate da un'accurata analisi dei trend più rilevanti all'interno del campione.

La trattazione sarà strutturata come segue:

1. La prima parte sarà dedicata all'esposizione dei concetti introduttivi in questo campo, in modo da fornire al lettore una conoscenza adeguata del lessico e degli argomenti che seguiranno nella discussione. Nello stesso

capitolo, sarà fornita una panoramica della storia delle attività di M&A, sia nel mercato italiano che in quello statunitense, assieme ad uno studio sull'imprenditorialità italiana, ad un livello microeconomico e di settore.

2. La discussione continuerà con una rassegna della letteratura in materia, presentando le varie metodologie e i diversi risultati. Tutte le possibili letture saranno evidenziate, ponendo particolare enfasi sugli aspetti contrastanti e i motivi alla base di essi.
3. Il terzo capitolo sarà dedicato alla presentazione delle nostre analisi e ai risultati che ne derivano. In particolare, due diversi studi verranno proposti: una lettura sui trend osservati sia per le società acquirenti che per quelle acquisite ed uno studio econometrico sulle determinanti della creazione di valore dal punto di vista delle acquirer. L'analisi si concluderà, quindi, con una potenziale interpretazione delle dinamiche sottostanti agli effetti osservati.
4. La sezione seguente esplorerà in maggior dettaglio dei case study, riguardanti tre operazioni significative incluse nel nostro campione. Lo scopo, in questo caso, è quello di osservare su dei casi reali quali siano le diverse motivazioni alla base delle operazioni di M&A e quali i risultati raggiunti tramite queste.
5. La tesi si concluderà, infine, con una breve serie di conclusioni e possibili suggerimenti sulle best practice da tenere a mente per tutti coloro i quali si interesseranno della materia in futuro.

# Chapter 1

## 1. M&A TRANSACTIONS

Our first purpose in this paper is to give the reader a sense of what we intend by Mergers and Acquisitions (hereafter referred to either as “M&As”, “M&A transactions” or “M&A operations”). These kinds of transactions belong to a broader segment of Corporate Finance, commonly known as “Corporate Restructuring” (or “Finanza Straordinaria”, in the Italian literature), which includes operations that are not part of “Business as Usual”, such as divestments, demergers, stock-option plans, creations of holding groups, etc.

To have a better understanding of what is meant by M&A activity, we will dedicate the first paragraph to a brief overview of possible transactions, by describing their features and proposing some categorisations.

The following section will summarise the phenomenon of M&A “waves” in the past, with a special focus on what happened in Italy over the last 20 years.

Lastly, paragraph 1.3 will present the reasons that lead companies to undertake M&A operations, by focusing on two typologies of actors: the shareholders and the management.

### 1.1 What M&A transactions are (and what they are not)

The first section of the paragraph will provide some definitions of the basic operations an M&A practitioner has to deal with, even those transactions that have not been included in our sample due to their peculiarities, which lie outside the scope of our study.

Other features of M&As will be treated in the following subparagraphs, in particular part 1.1.2 will present a taxonomy of the deals with respect to the reactions of the target to the bidder interest, while subparagraph 1.1.3 will show some of the possible defensive strategies that management can undertake to prevent or stop an hostile takeover from an external raider.

Subsequently, in subparagraph 1.1.4 we will examine the payment methods and the effects they have on market perceptions and expectations, which will consequently translate in share price variations and eventually require different analyses for the actual cost of the deal, as eventually discussed in section 1.1.5.

### **1.1.1 Definitions of M&As**

As defined by Michael McGrath, “M&A is a collective description for a series of related corporate activities with the purpose of leading one or more, or sometimes parts of, companies to the change of control stage” (M. McGrath, 2011).

We would actually prefer to distinguish the two concepts: by “acquisitions” we intend the operations in which a firm (hereafter referred to as the “bidder”, the “acquirer” or the “buyer”) acquires totally or a major portion of another company (hereafter referred to as the “target”). In an acquisition the ownership of the company is transferred, in full or in part, to the acquiring firm, in exchange for that a payment is made to the target shareholders, typically at a price over the market value. The assets and liabilities of the target (unless other agreements are made) will belong to the bidder.

By “mergers”, however, we indicate those deals that conclude with the legal disappearance of one of the two companies, which does not necessarily occur after an acquisition. In a merger the two organisations agree to come together and all their assets and liabilities form the new company. The resources of the two firms are combined in the belief that the two firms together perform in some way better

than the two firms as separate entities. At the end of the process, the ownership of the company is shared among the original shareholders of both companies.

The two sets of operations are commonly studied together, since most of the reasons at the root of the two types of deals are similar, as thoroughly discussed in paragraph 1.2.

Finally, we need to warn our audience that some acquisitions are presented to the public as a merger. This is done to receive fiscal incentives, to minimise the impacts on the personnel and to reduce the frictions between the two participants; all these aspects will be discussed in the next sections.

What we want to underline here is that in order to actually have a merger two or more companies need to have approximately the same size, so that money doesn't need to change hands from one to the other and the ownership is equally shared among the original shareholders.

The range of operations that belong to this area is extremely broad; we will therefore give an overview of the possible deals among companies, by presenting the characteristics and peculiarities of a taxonomy of the operations, as reported by Mergermarket (the database where our sample is drawn from), even of those we did not consider in our study.

A first example of agreement that sits in the middle between Equity forms and contractual market relationships is that of "strategic alliances" (M. Colombo, 2003). This term would actually include a wide set of collaborations, that vary from the simple concession of licenses against the payment of the related royalties, to co-branding and resource sharing, through customer-supplier relations in the value chain context. The peculiar feature of these arrangements is the opportunity for both partners to remain independent as organisations and simultaneously benefit from the synergies that may rise from the cooperation. These agreements are often fostered by start-up companies, which usually lack certain skills and assets (such as



managerial competences or distribution channels) and have great convenience in terms of time and cost savings, in acquiring them from the outside. The biggest concern in these instances would be trust: the relationships are highly risky because of the small possibility of creating “hostages” (e.g. relation-specific investments) and the great knowledge appropriability hazards (M. Colombo, 2003).

With the term “Equity Joint Venture (EJV)” we intend a business agreement which results in the creation of a third legally distinct juridical entity, owned by two or more partners (P.W. Beamish, N.C. Lupton, 2009), sometimes for a limited period of time, with the purpose of exploiting each other’s capabilities towards a common goal. The same term is used for temporary partnerships among professionals, who assume the role of “co-venturers”, even just for a specific project. In the case of corporate JVs, both companies contribute to the Equity and therefore jointly exercise their control (usually on an equal level) on the Newco and eventually share the associated risks and returns. Due to the nature of this partnership, many protections are needed: the companies involved indeed need to protect themselves from the danger of opportunistic behaviours coming from the other party (spill-over risks, misappropriation of valuable assets, etc.); therefore, after a sound Due Diligence to check the credentials of the partner, companies would insert many clauses in the Statutory act to protect themselves during the cooperation.

Nonetheless, JVs are still to be considered as a safer way to collaborate if compared to strategic alliances, because of the sunk costs undertaken by the partners and the legal bindings they have to subscribe.

JVs, as all other sorts of partnerships, have become more and more accessible, thanks to the development of the internet, which eased the research of information regarding reputations, financial aspects and companies’ skills, thus greatly reducing the transaction costs in the market.

A third category we need to present is that of “divestments” or “divestures”, namely the disposal or reduction of certain corporate assets. Divestment operations belong to the area commonly known as “Portfolio Restructuring” and include a range of possibilities that may vary accordingly to the needs of the firm and may also involve an entire business unit (C. A. Montgomery, A. R. Thomas, 2006). Being said that divestments are more frequent during recession periods, when companies have more difficulties to compete in the market, one of the main reasons for such a decision is the need for focusing on the core competences; in fact, many companies, that during bullish market trends fostered a diversification strategy, need to go back to their core business to survive when the market turns downwards. A second motive may be the opportunity of new investments, therefore in this case the disposal is just a way to finance something that is believed to be more profitable. Thirdly, divestments may be due to financial reasons, either because of the high volatility of a segment, which increases the variability of the overall company (thus increasing the cost of borrowings) or because the same segments have been underperforming over a relatively long period. Lastly, some “breakups” happen because they are forced by legal authorities, this is often the case of companies operating in a low-competition market or in a quasi-monopoly (e.g. the most famous breakup in the history of the US antitrust department is the one regarding the American Telephone & Telegraph Company, AT&T, that was forced to split into its seven regional subsidiaries, thereafter known as “Baby Bellies”). Some divestments occur in the form of “spin-offs”: in this case the company that leaves the parent creates a separate business, even though not completely independent, since the shareholders of the original organisation will own “pro quota” the shares of the new-born firm. Spin-offs are more frequent when the division that spins off has increased enough to be attractive from the market and can stand up on its own feet, so that new investors may be interested in financing it for further growth.

The “demergers” (also called “sell-offs”, “splits” or “break-ups”) (McGrath, 2011) belong to the “Portfolio Restructuring” area too, but are slightly different from “spin-offs” under a juridical perspective. As in the previous case, it is fundamental to have clarity around the assets and liabilities that are being separated to form the new company. In the case of demergers though, the new company that rises from the original one is totally independent from it and new shares are issued for the existing shareholders.

Since acquisitions can be limited to a single business unit, it is common to separate the target division from the parent company in order to be acquired. It is also frequent that the management of the separated business unit is the one who purchases it, thus realising an MBO (Management Buy-Out). These operations can also have a financial motive due to a different division of the initial debt of the company with the relative greatest portion given to the part that has the highest cash flows, thus reducing the overall cost of debt.

A particular type of demerger is the “Equity Carve-Out”, where, after the creation of a Newco, an IPO (Initial Public Offering) is launched to attract new investors for a minority stake, so that the original shareholders do not lose their control over the daughter company. The benefits that come from such an operation are similar to those related to any other IPO and can be distinguished into 4 groups (G.Giudici, 2010):

- 1) **Financial benefits**: the listed company gets an easier and less expensive access to the sources of financing, it may vary its financial structure, minimise the overall cost of debt and equity and even take advantage of bearish market trends to gain a high evaluation of its assets;
- 2) **Operational benefits**: it is mostly a matter of marketing and image, the company gets to be known by a wider audience and may also gain new distribution channels, the efficiency may increase because of a stricter

control and the potential presence of institutional investors, furthermore being listed turns into a more qualified certification of the enterprise's work.

- 3) **Organisational Benefits:** the productivity may increase due to a more efficient reporting system within the company and towards the market (Management Control Systems) and performance-based incentive plans may be put in place.
- 4) **Fiscal benefits:** some countries (such as Italy in the 90s) may offer fiscal savings for companies that decide to enter a regulated financial market.

Lastly, we shall present a type of acquisition that stands out for its particular features: the so-called "Reverse Takeover". In this instance the bidder is a private company, whose purpose is of going public and wants to shorten the long process of changing its status (K. C. Gleason, L. Rosenthal, R. A. Wiggins, 2005). The operation is then conducted by acquiring a public company (often referred to as "shell company") and merging it with the original one. The organisational structure of the public company is then changed and the private company shareholder will control the board of directors. The motives for such an operation are mostly related to the "public" status and all the favourable conditions that follow, plus this change is made at a lesser cost than going through the bureaucratic process of statutory change.

### 1.1.2 Types of M&As

Takeovers may be distinguished with respect to the characteristics of the deal. In particular, in this section we would like to describe three main aspects of these

operations, namely the different sets of synergies that the companies may reach after the conclusion of the deal, the negotiation process and the attitude of the target company towards the acquirer.

M&As are usually conducted bearing in mind the idea that the combination of two organisations may result in a value that is higher than the simple sum of the two original stand-alone firms. This idea is the reason why the acquirer is willing to pay an additional premium to the actual value of the target and the market is already aware of it, as we will exhaustively present in subparagraph 1.1.5.

By considering the different synergies that can arise from the M&A we can draw a taxonomy of the market (classification by W.L. Megginson, A. Morgan, L. Nail, 2002):

- 1) **Horizontal operations**: it is the case of transactions that take place between two companies that operate in the same industry and therefore are potential competitors. The benefits that may be achieved by the two participants are firstly linked to a higher market share and therefore a stronger bargaining power towards suppliers and customers, then economies of scale can be built up thanks to a higher productive capability and different core skills may be combined towards a more efficient and effective paradigm. In this instance, integration and consolidation are typically easier due to the similarity of the two merging firms.
  
- 2) **Vertical operations**: in this instance the two players hold different positions in the supply chain (one being upwards, the other being downwards) and therefore are connected through a customer-supplier relationship. The benefits that can be acquired are mainly due to economies of scope (which eventually lower the average costs if the products or services are created through a similar know-how or may share the same physical assets) and

economies of integrations, by insourcing part of the process that was previously conducted outside the company border. In addition to that, the control of the supply chain typically allows for better pricing opportunities and improvements in the quality of products and services.

3) **Conglomerate operations**: the companies involved have interest in unrelated business, so the incentives they have are due to the possibility of diversifying their activity, thus reducing volatility and the risk perceived by the market. Even in this case some economies of scope may rise, if, for instance, the technology, the know-how or the productive processes have some common linkages. Many holding companies are built upon the theory that two businesses match well together, if they would seldom suffer a downturn at the same time

A different classification of M&A transaction can be outlined by studying the negotiation process of the deal. More specifically, the transaction may be conducted through a private negotiation between the two companies or via financial market. In the first case we are talking about “private placement”, which is accessible even to small size firms, which have no possibility of being listed in financial markets. However, when a buyer decides to operate through the capital market, it can choose between two different options. The first solution would be acquiring a sufficient amount of shares from the current owners to get the control of the overall company, whereas the second possibility is to promote a “tender offer” towards the public in order to buy the necessary amount of shares. According to the Italian Law (Testo Unico della Finanza, art. 102-112), two different types of tender offers exist: voluntary offers, with the acquirer promoting its intention to buy a specific amount of shares and divulging the offer price; compulsory offers, in which the bidder is forced to buy the remaining shares from their holders (if they want to sell them) after overcoming a fixed threshold (30% of the controlling power). Further

particularities and exceptions apply depending on the context, but are not treated extensively in this paper, as they lie outside its scope.

Public offering bring along some pros, such as the reduction of transaction costs due to the high information disclosure of listed companies and therefore to a simpler partner scouting process.

The third possible categorisation applies only with respect to the tender offers, and it considers the different attitude of the management of the target firm towards the external raider. There are two possible reactions to the forecasted acquisition: in the best scenario, we speak of “friendly takeover”, since both parts agree on the condition of the deal, whereas on the other hand a “hostile takeover” means that even if there are frictions coming from the target company, the buyer still pursues its offer. The opposition comes mainly from the management of the target, which fears the risk of being substituted right after the operation, rather than from the shareholders, who are usually attracted by the premium price that the bidder is willing to pay (G.Giudici, 2010). The external raider in these instances is often referred to as “the dark knight”, so to recall the idea of an undesired presence that fights against the current management.

Possible reactions to a hostile takeover, can be undertaken before and after the announcement and will be extensively presented in the next subparagraph.

### **1.1.3 Defensive strategies**

When a hostile takeover is feared, the management of a company can undertake various actions for preventing the risk or can react only once the announcement is already public.

Sometimes defensive tactics are used to increase the bargaining power of the target, so that its board of directors can negotiate a better price for its shareholders. In any case, the idea behind the defensive strategy is to force acquirers to negotiate the

transaction with the Board of Directors and not only with the current shareholders.

Since the set of potential tactics is very wide, we limit our discussion to the most common ones, as categorised by Boricki (M. Boricki, 2010):

- 1) First of all, it is not trivial nor useless to **inform** shareholders about the reasons why the transaction would be disadvantageous for the firm.
- 2) A second option would be that of **buying back company's stock**. This is useful especially when the target possess high levels of liquidity. In this instance, its attractiveness is due to the possibility of acquiring through debt, which is eventually repaid by the cash flows of the target itself. Therefore, by using cash to repurchase its own shares, the company becomes less appealing. In addition to that, buying shares on the market increases their price, thus making the takeover more expensive.
- 3) **Greenmailing**, also known as “bon voyage bonus” or “goodbye kiss”, is an alternative when a large amount of shares is held by a hostile shareholder (being it a company or a private investor). The company defends its status by acquiring the stock owned by the “dark knight” at a premium price.
- 4) In some cases, managers decide to promote **defensive acquisitions**, namely acquisitions financed through debt. Due to the increased leveraging of the company, the external raider will likely be less attracted in acquiring it. The risk in this case is that suboptimal decisions may be made by managers, with the only purpose of defending their position and without considering the actual value potential of the acquired company.
- 5) A simpler solution would be that of finding a “**white knight**”, namely another potential acquirer, which would take over the target under



favourable terms and at a higher price. The “protector” would defend the interests of both the company and the shareholders.

- 6) “**Golden parachutes**” have the peculiarity of defending only the executives from management turnover. These are clauses attached to the contract of the top managers, which force acquiring company to pay high bonuses if they want to change them with external figures. Since these amounts are usually small relatively to the size of the deal, they won’t affect the success of the transaction, but are adopted by executives to ensure themselves further personal benefits. Another arrangement of this kind is to set a “**supermajority quorum**” to decide in matter of changing or removing board members and approving M&A operations, so that the external raider would need to purchase more than 50% of the shares to pursue these decisions.
- 7) Another solution would be that of redistributing a large dividend to shareholders, by financing it through debt. This strategy is referred to as “**leveraged recapitalisation**” and brings also the advantage of giving back to the shareholders some of the premium they would have received from the external acquirer.
- 8) ESOPs (“**Employee Stock Ownership Plans**”) can also deter potential acquirers, since the Board keeps a potential buffer of shares to be used when a “dark knight” is feared. When a potential acquisition is feared the directors can issue new shares, thus increasing the required amount of stock to exercise the control of the company.
- 9) Lastly we have the shareholder right plans: it is a set of 4 different strategies, which goes also under the name of “**poison pills**” because they tend to make the deal less “digestible” to the acquirer, by increasing its cost or making the

target less attractive.

The plans consist in attributing the current shareholders certain rights that can be claimed under particular conditions.

- A “**flip-in**” plan consists in giving to the shareholders (except the potential hostile raider) the right of purchasing new stocks at a discount. The right can be exercised when an actor accumulates more shares than a fixed “alarm” threshold (typically ranging from 20% to 50%), so that the risk of takeover is reduced, because the raider gets its participation in the company diluted.
- A “**flip-over**” plan occurs after the takeover and would give target’s shareholders the right to purchase unfriendly company’s shares for a discounted price, so that the latter would realise a dilution, resulting in an overall devaluation of the buyer.
- “**Voting plans**” may also be a good barrier to prevent undesired acquisition, by giving superior voting power to a certain preferred stock, so that even if the raider bought a substantial amount of common shares, the voting power would still be in the hands of the already-existing shareholders.
- Lastly, “**back-end rights**” can be issued to the existing shareholders, so that if a hostile bidder shows control interests in the company, once again by overcoming a triggering threshold, they can exercise their right and get a senior security or cash equivalent to a fixed “back-end” price. This solution then implicitly imposes a minimum price for the acquisition of the company: the “back-end” price indeed, which will obviously be set higher than the current market value.

Two further possibilities, which prove to be less frequent in M&A history, are:

- The “**crown jewel defence**”, i.e. the right for the target company to sell its most valuable assets if a hostile takeover occurs, thus reducing its attractiveness
- The “**Pacman defence**”, as reminded by the name, consists in the attempt to revert the positions and try “to eat” (acquire), those which wanted “to eat” you in a hostile takeover.

The use of defensive tactics has been hugely debated in the Italian context, since investors put pressure for a freer “market for corporate control”. Being this the situation, the Italian Law imposes many boundaries to defensive actions. This decision brings along many pros and cons, which lie out of the scope of our study; however, we would like to include an example of a hostile takeover that succeeded and is still matter of open debate and criticism.

We are referring to the acquisition and subsequent merger of the Italian former public Telecommunication company, Telecom, by the Olivetti group.

In 1999, the group headed by Roberto Colaninno, after having shown interest towards various telecom firms (in particular with the partnership with the German group Mannesmann), announced its tender offer for the newly private and listed company, Telecom. Being the law as we described, no defensive action could be undertaken by the target management, so the Olivetti group was able to collect over than 52% of the company stock, thus gaining its control.

The debate is still heated because, among other incongruities, the selling price was relatively low, due to the collective nature of the company and the impossibility of the board to protect the shareholders from external raids.

### **1.1.4 Methods of payment and market expectations**

When a buyer reveals its intention to acquire a certain amount of the target shares, it must disclose a certain amount of information. For listed companies a prospectus (“Prospetto Informativo” in the Italian regulation) is required. This is a document through which the bidder reveals to the controlling Authority and to the market all the information regarding the transaction to be concluded and all that is needed “in order to allow investors to get a sound assessment of (the bidder’s) financial, economical and proprietary situation” (Art. 94, D.Lgs. n. 58/1998).

Therefore, it is the “business card” of the company, compliant with the principles of trust and fairness and according to the needs of true and exhaustive information of the public and the market in general (P. Amato, 2001). The document usually consists of two main parts:

- 1) A first section is dedicated to the bidder, with information regarding: its business model, its competitive and financial position, the synergies that it intends to pursue through the acquisition, etc.
- 2) A second section specifies the details of the offer, namely the amount of stock that the bidder wants to acquire, the price that it intends to offer, the conditions of the deal, potential clauses (such as the right to cancel the offer if the participation does not reach a fixed threshold), etc.

One of the most important pieces of information is the definition of the methods of payment that the company will adopt for the transaction. We can roughly split up the different choices in two categories: payments by cash and payments by paper (bidder’s shares). In reality, these are just the two edges of a continuum, in which

we can find also mixed payments (sometimes with the addition of particular rights or options).

When shares are offered as a method of payment, a proper exchange ratio has to be determined. Let's define the following variables:

$V_b$  : bidder's market capitalisation

$V_t$  : target's market capitalisation

$n_b$  : amount of existing shares of the acquiring company

$n_t$  : amount of existing shares of the target company

The share price for both enterprises will then be calculated as:

$$p_i = V_i / n_i \quad i = b, t$$

Therefore, the following formulas give the amount of new shares that the acquiring company will issue and the relative share exchange ratio:

$$n'_b = V_t / p_b = n_t * p_t / p_b$$

$$\alpha = n'_b / n_t = p_t / p_b$$

This result is valid as long as the market value of the target stays the same after the announcement of bidder's interest. This is not the routine, since the acquiring company usually offers a premium price, so that the offer results more appealing to target shareholders. When this happens, the formula has to be changed by simply inserting the offered amount in place of  $V_t$ .

A series of implications follow the selection of the method of payment, as the market builds up its expectations with respect to this financing decision.

When only cash is offered, the target's shareholders can "cash out" their investment

without assuming any risk in the implementation of the merger. When new shares are issued, target shareholders who decide to accept the offer, will undertake the risk related to the success of the integration between the companies. In exchange for the risk assumption, they can benefit from the potential value creation, as any other bidder shareholder.

Moreover, what usually happens is that the market creates negative expectations when the bidder offers its own shares to finance the acquisition.

To explain this behaviour, we first need to consider that there is always information asymmetry, since the bidder's management has a deeper knowledge of its company's current situation and future outlook. Therefore if the bidder's shares are undervalued by the market, the board will avoid as far as possible the use of stock as a method of payment, because it would actually result in a higher total expense. On the contrary, if the same shares are overvalued by the market, using them for financing the operation would be more convenient than paying by cash.

A similar concept is expressed by Myers and Majluf (1984), when presenting a capital-constrained firm that needs to finance a new project, in presence of information asymmetry. For the sake of completing the discussion, the model will later be presented for those who are interested in the technicalities and only a synthesis of the findings will here be included.

The result of the authors' study is indeed that, when a company is overvalued by the market, it sometimes finds convenient to finance projects that would actually destroy its value (that is, projects with a negative NPV), because the shareholders would eventually benefit of the overpriced issue of new shares.

Let's assume that a company wants to launch a project having a NPV equal to **b**. Its net assets amount to **a** and its liquidity is **S**, whereas the investment required by the project is **I**, with **I** being strictly greater than **S**, i.e.  $I > S$ ; therefore the company

would need to collect  $E = I - S$  in order to launch the project.

Let's assume also that the only source of capital is the financial market, which, however, is neither aware of the value  $a$  of the company nor of the project NPV (these value being known only to the company management).

Therefore if the management works for the sake of its shareholders, it'll undertake all those projects that can guarantee:

$$\gamma(E + b + S + a) > (S + a) \quad (1.1)$$

with  $\gamma$  being the portion of the company still owned by the original shareholders, after new shares have been issued.

On the left-hand side of the formula we see the final value of the company, times the portion still owned by the original shareholders, while on the right-hand side we have the original value. The two sides represent the value for the shareholders before and after the implementation of the project.

By rearranging the formula, we obtain

$$(1 - \gamma)(a + s) < \gamma(b + E) \quad (1.2)$$

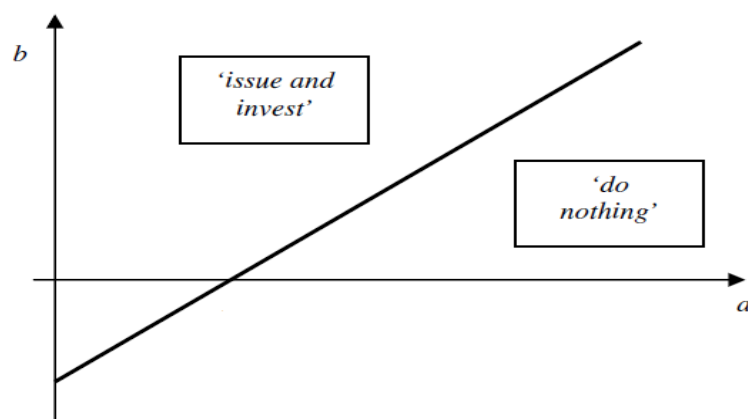
This result can be read as follows: the company will undertake the investment, only if the portion of the collected liquidity and project NPV belonging to the original shareholders (right-hand side) are greater than the value they cede to the market.

There are two main implications coming from this behaviour, as we can see in graph 1:

- 1) If the company is undervalued by the market ( $a$  is high), the managers will not be willing to issue new shares on the market, since they would be underselling their assets to the market. The risk, in this case, is to reject

investments with positive NPVs, thus destroying potential value for the organisation.

- 2) If the company is overvalued by the market (low values for **a**), the managers could be willing to undertake even projects that would actually destroy value for the company (**b**<0). This behaviour is due to the opportunity of collecting liquidity for an amount that is greater than the eventual loss, as far the shareholders' perspective is concerned.



The graph represents the two strategies between which the company has to decide, the relationship between the two “unknown” variable is linear as we can see from the formula (1.2).

In the lower part of the graph the advice is to “do nothing”: the project will not be convenient for the shareholders either because the NPV is negative or because collecting money from the market is very expensive. In the latter instance, the company is facing the first risk: not investing in efficient projects (**b**>0) because its shares are undervalued by the market (high values of **a**);



In the upper part of the graph the decision will be to “issue and invest”: the project will be financed by attracting new investors in the company.

The second risk is then feared the most when the company is overvalued (low values of  $a$ ): in this instance, in fact, even projects with negative performance ( $b < 0$ ) can be convenient for the current shareholders.

The empirical findings on Successive Public Offers, especially in the US market, corroborate the conclusion that market reactions are normally negative, because an overvaluation of the firm is expected. Unfortunately, this happens also when the issuer has good investing opportunities, but does not possess the necessary financial resources to undertake it and therefore needs to issue new shares to collect new capital.

Obviously, if there wasn't information asymmetry and the company was able to prove its actual value and the value creation coming from its investments, there wouldn't be any market inefficiency in this sense.

### **1.1.5 Evaluation of an acquisition**

As mentioned in the previous sections, when a bidder places its offer to acquire a target, a premium price is proposed to the market, so that the shareholders may consider selling as convenient for them. Therefore, in order to evaluate an acquisition, a few considerations are needed, because sometimes the mere amount of the deal is not equal to the price the bidder pays to purchase the target.

To clarify the previous sentence, we need to remark that the market knows that the bidder is willing to pay a premium price; hence, when a rumour (or the official announcement) of the interest is spread, the expectations lead the price to go up suddenly and the market cap of the company is evaluated more than it is actually

worth.

Let's define the following variables:

$V_t$  : stand-alone value of the target (market cap before rumours);

$V'_t$  : value of the target under acquisition expectations (market cap after rumours);

$L$  : price offered by the bidder (for simplicity, we consider it as cash);

$\Delta V$  : value creation through the acquisition (as expected by the bidder)

Given these variables, two different expenses can be calculated:

$C_{\text{actual}} = L - V_t$  : actual cost of the transaction (offered premium)

$C_{\text{fictitious}} = L - V'_t$  : fictitious cost of the transaction

Since no shareholder would accept to sell its stock for less than the market price, we can easily expect  $C_{\text{actual}}$  to be positive. We cannot draw the same conclusion for  $C_{\text{fictitious}}$ , since sometimes the market price after the announcement goes higher than the offer. For instance, this occurs when the market forecasts a refusal to the initial offer and a following higher proposal from the bidder.

A second result is that  $C_{\text{actual}} > C_{\text{fictitious}}$ , since market expectations usually inflate the market cap of the target ( $V_t < V'_t$ ). Therefore, if a company estimates the cost of the purchase only referring to the fictitious cost, it is underestimating its expenditures, because the real value of the target after the acquisition will be equal to  $V_t$  again. In particular we can divide the premium the bidder is willing to pay in two parts:

$$C_{\text{actual}} = L - V_t = (L - V'_t) - (V_t - V'_t) = C_{\text{fictitious}} + C_{\text{market}} \quad (1.3)$$

Where  $C_{\text{market}} = (V_t - V'_t)$  is the premium already attributed to the target by the market, following the announcement or the rumours.

The bidder will want to acquire the company, as long as

$$\Delta V > C_{\text{actual}}$$

Namely, it is willing to operate, only if the expected synergies will create a value, which will be greater than the cost of purchasing the target. Thus, we can see the negotiation under a new perspective: it is simply a division of the value creation among the participants.

What actually happens is that target shareholders are automatically awarded a premium equal to  $C_{\text{market}}$ , just because of the expectations; then what remains of  $\Delta V$  will be split between the acquirer and the acquired.

In particular, the value is split as follows:

$$\Delta V_{\text{acquirer}} = \Delta V - C_{\text{actual}} \quad \text{gained by the acquirer;}$$

$$C_{\text{actual}} = C_{\text{fictitious}} + C_{\text{market}} \quad \text{gained by the target;}$$

If that was all, we would have a win-win game, with both parts gaining their portion of the value creation, but in practice “hopes in M&A deals can also exceed what is feasible. Often as a consequence, the amount spent for a target is too high or one of the merging partners is overvalued. Premiums paid can hardly ever be recaptured.” (Steger and Kummer, 2007)

If forecasts are mistaken, synergies overestimated or free cash flows inflated, their net present values will bring to excessively optimistic expectations, hence, chances are that the acquisition price is never recouped over time.

According to the literature on this theme, M&As look good on paper but are not realised as calculated, due to the buyer's perspective, which hopes that M&As can solve other problems or improve the performance of existing divisions of the company.

When an acquisition is made to distract the attention from the real operational problems, the goal is unrealistic from its premises, the devoted resources are simply wasted and it is no manager's fault if the objective is not achieved in the end.

As stated by Ivancevich, M&As are unfamiliar situations for both managers and employees, so when goals are out of reach, the resulting high emotional involvement and great distress may further increase the likelihood of failure (Ivancevich et al. 1987).

If the goals are perceived as important, managers will renew their efforts to undertake further attempts to meet the expectations and keep on predicting too favourable outcomes for their actions, leading to new trials and failures.

What the author proposes instead is that they should reshape the objectives and make them realistic; unfortunately though, "realistic" plans quite too often are not enough to fit in the agenda of extraordinary growth of most companies, therefore they would not be sufficient to convince the board or the shareholders to invest in such projects.

Deals have to be ambitious to attract the attention, but they can create value only as long as they don't cross the borders of feasibility, so that the premium paid will not exceed the advantages of the operation.

In the next paragraph we will analyse some of the reasons for M&A failures under the perspective of "soft" variables, by showing that sometimes the hardest part comes only after the deal is concluded.

## **1.2 Waves in M&A history**

It is well known that M&A activity comes in waves, namely we can notice continuous peaks and troughs in the volumes of deals. What is more impressive though, as stated by Steger and Kummer, is that “M&As continue to take place, not only on a small scale but also periodically with great magnitude, when M&As in the previous wave – and even in the ones before that – may have failed” (Steger and Kummer, 2007). Whether and why M&As frequently fail will be the subject of chapter 2, we will now present the features of the M&A activity in the biggest market of the world, the US (section 1.2.1) and then in the context we are analysing, Italy (section 1.2.2).

### **1.2.1 M&As in the U.S.**

Being the US the market with the longest M&A experience, from the analysis of its history we can draw some insights of what are the reactions to macroeconomic factors and outline some of the trends of the latest years.

Generally, M&A activity has grown considerably over the years. Whilst it experiences periods of rapid growth and periods of decline, each growth period brings new highs, each higher than the last.

As reported by York University, the history of US M&A consists of six major waves, the first of which in the late 1800s with a potential new one coming in the next years. Each of the waves presented particular features in terms of dominant operations due to corporate restructuring trends or regulatory changes that affected competition in the industries.

The first phase began after the depression of 1883, at the turn of the twentieth century (1897 to 1904) and saw a spate of horizontal mergers, which allowed enterprises in the same line of business to create monopolistic industries, such as

petroleum products, mining, metals, railroads and so on. This purpose was easily achievable due to the Liberal approach of the then US Government that fostered a laissez-faire economy, by setting the regulations at a minimum. The phase came to an end when the US Supreme Court started a severe battle against monopolistic combinations, because they violated the Sherman Antitrust Act (1890). Due to this campaign, President Theodore Roosevelt is still remembered as the “Trust Buster” (Source: Beechmont Crest).

The second wave (1916-1929) started during World War I and continued up to the stock market crash of the “Black Tuesday” and the following “Great Depression”. At this stage, we can notice the rise in vertical mergers, due to the strong opposition to horizontal transactions coming from the preceding wave.

In particular, manufacturing corporations integrated upwards to access the sources of raw material and downwards to control the distribution channels, so that the combined complementary resources could finally result in a higher value. It's in this period that many major car manufacturers, such as Ford, consolidated their business. As we said, the stock market collapse of October, 29th 1929 brought this wave to rest.

The third phase coincided with a period of great prosperity in the US (1965-1969), which gave the necessary resources to companies in order to expand their business. Since by this time the law had become opposed to both vertical and horizontal operations for their anti-competitive nature, conglomerate deals were the solution for those companies who aimed at a high growth. Hence, in this period we witness the rise of corporations who went beyond their conventional industry and broaden their offer, by expanding into new market segments.

Due to a crash in the stock market, the wave slowly declined after the peak of 1969, paradoxically when a more tolerant administration, led by President Nixon, took over.

The fourth wave (1981-1989) had a relatively smaller scale than the previous one and it took place under the Reagan administration, in a period of economic prosperity, where M&As were more acceptable as a business practice. Within this phase an unprecedented amount of hostile takeovers took place and the expression “corporate raider” entered the business lexicon: all those companies which were underperforming were acquired or were forced to improve their productivity. Moreover, deal amounts increased enormously reaching impressive figures and debt was used much more than in the past to finance new high-leveraged acquisitions. Sometimes it was the large investment banks that conducted the operations on the behalf of a hostile raider in order to have easier negotiations. The wave phased out due to the collapse of the banks’ capital structures, because of the aggressive lending activity these institutions had carried out.

A few years later (1993-2000) a new wave of enormous dimensions started. Under the Clinton presidency, in a period of good growth of the country and bullish markets, several takeovers were concluded, with the new trend of the “mega deals”. The enthusiasm for economies of scale led to the creation of multinational corporations of unprecedented dimensions, as size was considered the most important competitive advantage to gain a market. Significantly, 6 out of the 10 largest deals in the M&A history took place from 1988 to 2001 (source: KPMG). The era concluded with the bursting of the Millennium bubble and the explosion of some impressive scandals, such as the ones involving Enron and Worldcom. The latest wave (2003-2008) began in the early 2000s, in a period in which globalisation was an imperative for companies which wanted to gain competitive advantages on a worldwide scale. Cross-border activity reached peaks that were unthinkable in the past: companies looked more and more beyond their national borders and global capital enormously boosted a momentum that sustained even the growth of small and medium companies with great ambitions.

Another driver of the expansion was the role of private equity practitioners which increasingly brought capital to profitable firms which wanted to grow and had the necessary skills to achieve their goals. This factor goes along with an increasing participation of the shareholders in the management of their company and a greater control by institutional investors.

The last wave concluded with the start of the ongoing “Subprime Mortgage” crisis and the consequent impacts on financial markets and economic growth.

Waves	Period	Facet
First Wave	1893 – 1904	Horizontal mergers
Second Wave	1919 – 1929	Vertical mergers
Third Wave	1955 – 1970	Diversified conglomerate mergers
Fourth Wave	1974 – 1989	Co-generic mergers, hostile takeovers, corporate raiders
Fifth Wave	1993 – 2000	Cross border, mega mergers
Sixth Wave	2003 – 2008	Globalisation, private equity, shareholder activism

*Source: York University*

From 2008 up to date, the economic downturn pushed the market back to the level of 2004, but new opportunities are rising for a 7<sup>th</sup> wave to come.

As stated by KPMG in one of its latest reports about M&A activity worldwide, the experts nowadays focus their attention on the B.R.I.C.S. (i.e. Brazil, Russia, India, China and South Africa) as potential markets for profitable targets.

Some debates are still going on regarding the inclusion of the whole Africa as a



continent in the most developing countries, as the M&A sector in that area is expected to boost foreign investment in the next years.

Given these premises and bearing in mind the demographic expectations of 2 billion people by 2050, it's no wonder that Africa's consumer markets are set for optimistic growth and that the largest U.S. companies are starting to establish their presence there, such as Walmart, which placed a 4.6 billion \$ offer for acquiring a controlling stake in Massmart Ltd.

According to Thomson Reuters data, M&A activity in Africa surged to a record amount of 53 billion U.S.\$ for the year ended 31 December 2010. This represents an increase of 69% on the 2008 year, which was considered the best year for African M&A by deal value in history. More developed economies have yet to reach the records set during the boom years of 2007 and 2008.

Apart from the emergence of companies in developing countries, M&A is on the rise also due to restructuring in banking sector, which brought to quite spectacular deals, such as BofA (Bank of America) acquiring Merrill Lynch (50 bln \$) or the demerged parts of Lehman Brothers purchased by Barclays Bank and Nomura. The trend is not limited only to the banking sector, in fact we can expect a number of drivers for further M&A growth over the next five to ten years, namely the forecasted industry consolidation at the end of the recession and the increasing importance of closer cooperation for technology and capital transfer.

### **1.2.2 M&As in Italy**

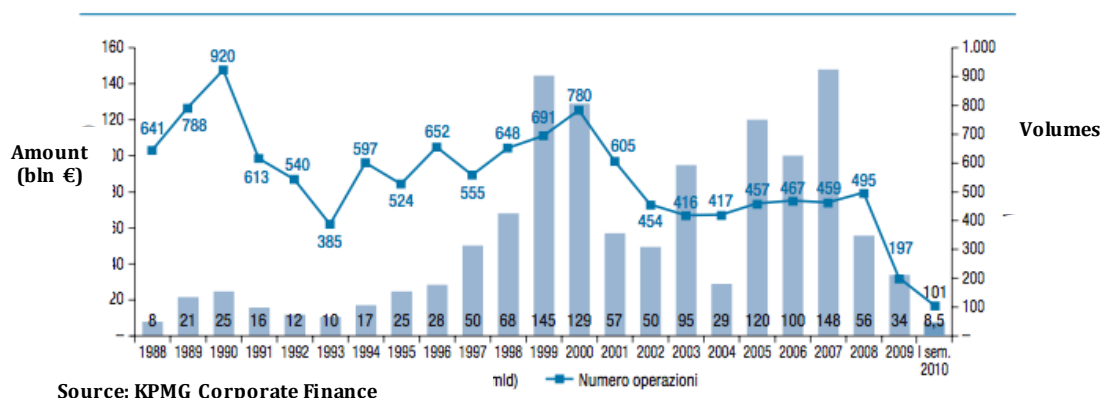
According to a study conducted by KPMG, over the years between 1988 and 2010, 12.402 M&A deals were stipulated, for a total amount of 1.256 billion euro.

Among the macroeconomic factors that affected the development of an M&A market, the authors highlight the fluctuations of the global economy, the increasing globalisation of the Italian enterprises and the evolution and growth of specialised

advisors, i.e. investment banks, consulting firms and so on.

The period of interest may be roughly split up in two sections, whose scale (in terms of deal value) is completely different, as we can see in figure X:

- The first stage goes from 1988 to 1998, with an initial increasing trend and a sudden downturn in 1991, mainly due to the complex situation of politics. In 1993 a bullish drift is registered as a response to the privatisation of former public companies, such as ENI, ENEL and their subsequent listing on financial markets.
- The second stage begins in 1999, after the Maastricht Treaty, thanks to which the country finds new stability and enterprises start looking for opportunities to expand their business abroad. This disclosure towards foreign markets creates favourable conditions for foreign savers to invest in Italian companies, typically through private equity funds. From 2001 to 2004, because of the Internet Bubble, M&A market stagnates, but soon after, starting from 2005, the trend is positive again, with an increasing amount of cross-border transactions (approximately 300 in less than 4 years). From 2008 on, given the economical recession, the market drops down again and corporate finance focuses its attention on debt restructuring rather than portfolio restructuring.



By further examining the analysis of the scenario, 4 main trends can be traced as currently affecting the market:

- **Privatisations:** as broadly discussed in paragraph 1.3, the 1990s have been a turning point for Public Finance in Italy and the set of reforms that came out during that period completely transformed the financial and economic balance of the country. As stated by OECD (Organisation for Economical Cooperation and Development), Italy is the state which gained the most from the selling of public companies. This led to a modernisation of many industries having crucial positioning and volumes, such as Telecommunications, Energy and Banking.

- **Internationalisation:** although most deals that occurred in the last 20 years were domestic, cross-border transactions reached a peak of 40% of the total volumes before the financial crisis began. Experts think that this process of disclosure towards foreign markets will boost the markets again as soon as financial difficulties are over and will in fact lead the way to new negotiations with developing economies.

The interesting aspect is that both foreign investors are more attracted by Italian enterprises, especially in the case of renowned excellences and thanks to more regulated and open markets; and Italian firms are expanding abroad for consolidating their positions in new markets, rather than mere off-shoring.

- **Aggregations:** being the market extremely fragmented, small and medium enterprises are more and more looking for alliances to grow in the domestic market and gain leading positions in their industries. These operations indeed allow companies to enhance their bargaining power and can be considered as a first step to the above-mentioned internationalisation approach.

- **Development of professionals:** one of the main drivers of the growth of the market, as we already mentioned, is the evolution of specialised practitioners and professional investors. In particular, a role of great importance, despite ongoing criticisms, was and still is played by private equity funds, which now more than ever are needed in order to help those many enterprises with financing troubles.

The last updates for 2011 report a scenario that is still stagnating (23.6 bln €, in line with 2010's 20 bln €), even though a good first semester had brought two important takeovers: the tender offer by LVMH to acquire 100% of Bulgari (4.1 bln €) and the acquisition of 83% of Parmalat by the French Lactalis.

The nature of these two deals reflect the current difficulties of Italian enterprises, which are now targets for foreign investors (especially American and European ones), as in 70% of the operations last year.

Whilst the financial services industry reported one of the most disappointing performance in the latest years, with half of the transactions and a fourth of the cash volumes in comparison with the previous years, private equity funds confirmed 2010's good expectations by participating in some of the most relevant transactions.

The outlook for the short term is still rather negative, due to financing issues and the current extreme volatility of stock markets, especially in a nation, such as Italy, which has been severely damaged by the ongoing sovereign debt crisis.

### **1.3 Reasons for M&A**

In the previous paragraph we have seen two conflicting results: on the one hand we have a high failure of M&A transactions, likely due to excessively optimistic expectations; whereas, on the other hand, companies look with increasing interest for opportunities to pursue their external growth.

The objective of this paragraph is to understand the rationale of this behaviour, by

analysing the factors that make M&As so appealing to the firms under different perspectives: section 1.5.1 will present the point of view of the shareholders and the organisation itself, while section 1.5.2 will show some potential personal motives that push managers to undertake these projects, which also partially explain the reasons of several failures.

### **1.3.1 Shareholders perspective**

The goal of the shareholders is that of maximising the value of their organisation, both in the long and in the short term (depending on their commitment to company mission).

Therefore, if they were rational actors, with perfect information and the power to decide the strategies to be pursued, they would agree to M&As only when the value of the combined firm is higher than the sum of the two individual companies, because of one of these factors:

- **Economies of scale:** these are all the advantages that a company may reach due to expansion in its scale and which usually spreads its profit margins. What usually happens is that the average operational cost decreases, because some of the expenses increase less than proportionally if compared to the dimension of the firm. This definition includes the synergies coming from an increased purchasing power (e.g. savings in the acquisition of raw material), use of similar platforms (e.g. decrease in production costs and investments in plants, filling unsaturated means of distributions, promoting a wider range of products with the same marketing costs), elimination of redundancies (e.g. unsaturated workforce can be better employed and, unfortunately, sometimes those who are no longer needed, will be fired) and a sound financial situation (e.g. bigger companies can usually borrow money at a discount, because of strong bargaining power and consistent

collateral to offer). On the other hand, margins can be widened thanks to an increased market power and the consequent potential opportunity to fix higher prices; in this case, antitrust authorities need to supervise the deal and prevent the birth of players that may distort competition in the industry.

- **Economies of scope:** the concept is similar to that of economies of scale, however, in this case, we refer to a company producing more than one product or providing more than one service. The idea behind the creation of value is that synergies may rise from the sharing of similar know-how and common physical assets. In this area we find all the pros related to the enlargement of product range: low average costs thanks to similar technologies, shared logistics, more efficient use of workforce, lower marketing and sales expenses per single item, an enhanced offer for the customer, etc..

By enlarging product offer or entering new markets, some sort of diversification is already achieved, thus reducing the fluctuations in the performance of the enterprises and decreasing the overall risk.

- **Economies of integration:** “they represent the efficiency when a firm establishes value processes that eliminate waste on all levels” (Piller and Möslin, 2002). The concept is that the sum of all costs along the supply chain can be lowered by in-sourcing part of the process. Potential sources of savings are: inventory (reduction of safety stock, implementation of a just-in-time approach), planning (simplification of the process), capacity utilisation (avoiding bull-whip effects, more flexibility to adapt short term changes) and sales (cutting stock-outs, reduction of errors and prevention of end-season discounts).

There is also a second category of advantages that relates to the opportunity of improving information in a CRM (Customer Relationship Management)

logic: information no longer needs to be spread along the supply chain, but customer's tastes and preferences can be more easily integrated in the design phase for more customized products and services.

For the sake of the exposition, we must say that these goals are achievable at a satisfying level also through a robust SCM (Supply Chain Management) approach, which is a hot topic nowadays thanks to development of information technologies.

- **Diversification:** it is the main aim of conglomerate deals. The concept that stands behind these operations is that companies can reduce the volatility of their performance by investing in unrelated business, so that the probability of all businesses going down at the same time is very low. In general fluctuations of the economy will have less impact on the performance of the conglomerate firms
- **Protection and growth:** M&A are not always an option; sometimes they are the only choice a company has, due to the contingent factors coming from the business environment. It is the case when growing is the only way to survive in a high-competitive market, where vulnerable companies are threatened by big incumbents and risk to be acquired if they do not acquire. Other times instead, external expansion is the only way to become more competitive, through the acquisition of new technologies, necessary resources or even by entering new markets.

It must be remembered that target shareholders may not be concerned about value creation as long as they receive a premium price for selling their shares. This is only the case of cash payments, since if they received bidder's shares in exchange, they would participate to the risks of the combined company in the future, as we have seen in section 1.1.4.

Moreover sometimes, shareholders don't act with the purpose of maximizing the value of the company, motivations can be contradictory and only large institutional investors, for whom a single firm is just an investment in their portfolio, always maintain this rational view.

Shareholders may be reluctant to sell to a certain acquirer because of personal involvement in the company, for the desire of being independent or because they prefer a "friendly" subject even if it doesn't offer the best price, such as when a local firm is preferred over a foreign raider because of its national roots (e. g. Yomo, as we will see in the case study section).

Family-owned businesses, as a relevant portion of the Italian companies, are the most averse to selling, no matter how much is offered in exchange.

### **1.3.2 Management perspective**

We have seen that shareholders would agree to M&A deals, only if they created real value for the enterprise, in terms of one of the drivers explained in the previous chapter.

If the discussion was already over, we would have to draw the conclusion that failures are only due to market inefficiencies, there being too optimistic expectations or wrong assumptions on future scenarios.

However, the problem is the discrepancy of objectives between the management and the organisation itself. Managers usually have personal benefits in investing in these projects and when they divert from those of the company, value destruction is likely to happen.

Since in most small companies management and ownership are generally closely linked, their motivations are usually aligned. The problem arises as corporations get



larger and the management is no longer the owner but is employed by the shareholders to act on their behalf. The management are agents for the shareholders but may not always act in the shareholders' best interests, the more is the disregard towards the owners, the higher the value destruction over time.

Literature refers to the inefficiencies coming from these suboptimal decisions as "agency costs", an example of which is the maximisation of management rewards, regardless the risk taken by the company.

A list of potential motives for M&A from managers' point of view is given by McGrath (McGrath, 2011) and includes the following factors:

- **Standing and remuneration:** being part of a bigger company usually allows managers to receive higher bonuses, but that's not all. The enlargement of the firm brings prestige and power to those who remain. Furthermore, research shows that the financial reward typically materialises even if there is no increase in the value of the firm (Jensen, 1986).
- **Job security:** as we already said, sometimes acquiring is the only way not to be acquired. From the managers' point of view this means preventing the risk of losing their positions (see also the reactions to a hostile takeover, as described in section 1.1.3).

This is one of the reasons for conglomerate deals: acquiring unrelated companies is a form of risk diversification. Hence, through the enlargement, managers make certain that the company is more expensive to acquire and potentially less attractive. At the same time the diversification factor makes the firm less likely to suffer financial distress and in need of new investors. Although diversification is a legitimate objective for a company, some evidence shows that it should be performed at the portfolio level rather than at an organisational level. Nonetheless, diversification usually leads to more

opportunities to access capital at a lower price.

- **Management investment:** managers have strong investments in their company; therefore their wealth is linked to its performance. Not only do they draw their income and get bonuses for their work, but once they are retired they will also receive a pension and can even be awarded stock options as part of their compensation.

In addition, their skills may not be valued, as they currently are, in other organisations, because of company-specific culture.

Due to all these factors, managers have strong interests in the company and differently from the majority of the shareholders, they cannot diversify their “investments”. This is a strong factor that piles up with the pursuit of job security.

- **Job enrichment :** when managers feel their skills are not exploited enough in their current position and find their work unrewarding, chances are that they think of M&A to stretch their talent. The opportunity of such a transaction is challenging by its own nature and can attract even those who are uncertain about the potential outcomes.

Moreover, the idea of leading a larger firm is a further incentive for unsatisfied executives, who now have the opportunity to express their capacity in a bigger-scale context.

The author states that there are potentially huge rewards for managers dealing with an M&A operation, so they justify them by referring to the target as a good “fit”, being fit a generic term to indicate the attractiveness of the company. However, what lies behind their intentions is sometimes in conflict with the interests of the enterprise and the need for growth by acquisition may be artificially created. This does not mean that M&As fail because of managerial self-interest, it is rather a

warning for those company which can be clouded or biased by good perspectives, without considering the related risks. Managers are often in a position where they can easily justify their decisions and when a conflict of interest raises, potential consequences are: choosing acquisitions when organic growth would be more appropriate, overestimation of the potential value creation, overvaluing the acquired firm (or vice versa, undervaluing their own company), rushing decisions when no sufficient information is yet available and not choosing the best “fit” for their enterprise (e.g. pursuing an expensive hostile takeover, when there are other equally good targets

The solution to overcome this issue lies in the hands of the shareholders, who have the power of imposing their interests through an active presence in the assemblies. What they need to do is have managers account for all their actions in a detailed way. These active investors, especially the senior ones, have become better organised and have started exerting their power by overturning decisions and replacing underperforming management.

Lastly, a certain form of control is exercised by the market, which eventually rewards those who operate in the interest of the company and punishes the others. The former will be awarded trust and confidence by the investors, the latter will be set aside.

## **1.4 The Italian market**

This paragraph will deal with some deeper insights regarding the core of our study: the Italian context. As every other country, Italy has its own peculiarities, which are crucial for M&A practitioners that need to face our national market. The discussion will be divided in two sections, the first one concerning the topic at a micro-level, namely the specific features of the Italian companies that can be of any interest for M&A, while the latter will deal with the macro aspects of the Italian industry, in

order to explain the roots of the specificity of the Italian context and to give an overview of its current competitiveness.

### **1.4.1 Peculiarities of Italian firms**

A crucial aspect for companies dealing with M&As is the existence and scope of a market for corporate control, namely whether it is possible and how difficult it is to change the ownership of the organisation the buyer wants to acquire.

This aspect has been long debated in the Italian context, due to the familiar tradition of many small and medium enterprises and the presence of enormous state companies (especially in the utility segment).

Whilst many steps have been undertaken to address the latter issue, with an ongoing process of privatisation of state-owned firms and liberalisation of industries, the former point is still preventing foreign investors from entering the Italian market.

Many examples can be made regarding privatisations, such as the already discussed (section 1.1.3) Telecom Italia's acquisition by Olivetti, since a series of interventions, under a Neo-Libertarian wave, have been pursued by the Italian government over the last 20 years.

As stated by an Italian professor, Alfredo Macchiati, at the beginning of the 1990s, there was robust consensus upon the reasons for privatisation: increasing the efficiency of the involved organisations, cutting public expenses (especially fixed costs and investments) and, what was felt the most, the possibility of reinstating morality into politics (the phenomena of corruption, bribing, employment promises in exchange of votes and manipulated public tenders were, and perhaps still are, main concerns in our country).

Nonetheless, after an initial period of peace among political parties, individual interests came out and the process took longer than expected.

Among the causes that slowed the privatisation development, Prof. Macchiati (A. Macchiati, 1996) highlights 2 main points:

- 1) Public property is not the only, and very likely not the worst, enemy to the liberalisation of the industries: much more has to be done with respect to regulations, disclosure to financial markets and company law
- 2) To have successful privatisations, no dominant positions shall be reinforced and no group of interest shall take advantage.

Privatisations come along with changes within politics and in the interactions between politics and economy. As long as public finance does not change its structure and private interests are still affecting government decisions, no actual change can occur. What we need to avoid is the Italian paradox that “everything changes, so that everything can stay the same”.

Although criticisms raised and several discussions are still going on nowadays, in the ten years between 1992 and 2003 an impressive revolution, not comparable with any other all over the world, took place in Italy: on average, each year, new stock for former public companies was issued for an amount equal to 1.5% of the annual GDP. In the 1980s 12 out of the first 20 and one third of the first 50 non financial companies in terms of revenues were public (source: KPMG). In the following years, crucial sectors have seen a privatisation wave, for instance, the change has been extremely consistent for the banking system, where the absolute majority of the groups were public before the reform of 1993 (Testo unico Bancario). The reform then allowed them to become actual enterprises, with operational and organisational freedom and the possibility of private investors to acquire voting shares.

The second theme, the one regarding the market for corporate control, has proved to be (Hart and Moore, 1990) of uppermost importance to reach a two-fold goal. Firstly, static efficiency can be reached, by guaranteeing that all the decisions are made to maximise the value of the company in the short and in the long term and by ensuring that the managers are always the best for the company itself; then dynamic efficiency can be achieved, since companies are able to access the capital market in an easier and less expensive way.

Given the importance of the subject, Banca d'Italia, the Central Bank of Italy, has conducted a research upon the features of ownership structures in the country in the period 1992-94.

The findings report that most of the companies has concentrated and not anonymous properties, with the majority of the organisations being family-owned and few foreign investors deciding to enter our market.

Almost ten years later, a new study was run by some researchers of the same institution, with the purpose of evaluating the changes that the country had experienced over the period 1993-2003. The sample included 486 Italian enterprises, coming from a varied set of industries and distributed all over the country.

The first result is that 90% ca. of Italian firms has less than 10 employees in its staff, with an overall average of 3.9 employees/company. This is indeed a big problem for those who want to invest in these firms, since small dimensions also means that the ownership is in the hands of few people.

All the previous findings were also confirmed by the companies in the sample, in particular:

- On average, the stock owned by the first controller in a company is more than

60%, while if one is to consider the first three shareholders for each firm, they control over 95% of the sample.

- In none of the companies, the first shareholder possesses less than 5% of the voting shares; therefore no collective ownership is found.
- The greater the enterprise, the more the ownership is concentrated. Therefore, when the dimension is not an issue, it is the first controller (typically a controlling company) the one that prevents new investors from joining the company.
- The property is almost never anonym, due on the one hand to the significant presence of physical owners (3/4 of the sample) and on the other hand to the lack of financial and banking participations. Even if foreign participation has more than doubled from 1993, only 4% of the companies are controlled by foreign subjects.

Being this the situation, much more needs to be done for the sake of a wider market for corporate control. However, many of these issues are not easy to solve, because they are rooted in our history, as the following subparagraph will thoroughly show.

### **1.4.2 Peculiarities of Italian industry**

What we aim to present in this section is a set of highlights of the history of Italian industry, as reported by Bianco (M. Bianco, 2003) in a broader analysis regarding the origins of local enterprises` features.

The roots of the history of the modern Italian industry can be traced back to the end of World War II, when, thanks to the “Marshall Plan” (also known as European Recovery Program), local companies witnessed a period of growth and political

stabilisation. IRI (Istituto per la Ricostruzione Industriale) was the vehicle through which the investments could reach the enterprises, within a long-term strategy of economic development of the country.

The following decades increased the importance of Italy as a professional exporter, due not only to the quality of its products, but also to the easy access to low-income workforce and inexpensive raw materials. In fact, two phenomena are considered to be the drivers of the development of those years, namely the end of protectionist policies and the high level of unemployment post-WWII.

The end of autarchy can be related to the end of Fascism and the aids coming from the U.S., which forced the country to open its frontiers to global markets and to face international competition.

At the same time, job demand was exceeding job offer by a great amount, due to the difficulties of starting over after WWII. This led to a scenario where labour was rather inexpensive and trade unions did not have strong power to defend the rights of the workers. Therefore, the conditions were ideal for local companies that wanted to compete internationally and had the possibility to do it in a period, when production off-shoring was not accessible yet.

Some figures may help to understand the scale of the growth (source: ): the manufacturing sector increased its production by 31.4% in just the three years between 1957 and 1960, with some segments reaching triple-digit growth (e.g. automotive and textile)

It's in this period that the state strengthened its controlling participations in many of the biggest enterprises in crucial sectors of the economy, such as energy (Eni and Enel), telecommunications (SIP), media (RAI), metals (Finmeccanica), etc.

Similarly, most of the banking system was controlled by the government.

The economic boom brought as a consequence high inflation rates, in a vicious circle that slowed down only after joining the EMS (European Monetary System), at the end of the 70s. The EMS, gave sufficient stability to the currency and further



boosted entrepreneurship.

In the 70s, given the influence of the American model of big corporations and the increasing competition coming from abroad, the biggest companies decided to vertically integrate in their supply chain, especially in those sectors where economies of scale played a major role as a competitive advantage (e.g. energy, oil & gas). The philosophy was of rationalising the available resources for increasing efficiency along the value chain; urbanisation trends and emigrations from southern regions, consolidated the leading role of the productive area of Milan, Genoa and Turin, thereafter named “Industrial Triangle”.

Together with the “Economic boom”, the ongoing gap between Northern and Southern regions in Italy widened, with the former evolving to an industrial stage, whereas the latter were still stuck to the agricultural paradigm that had characterised its history before the World Wars. Migration, as we said, was a plague for South Italy, which witnessed, on average, shifts of 800.000 people per year.

Meanwhile, the public sector was left behind in terms of evolution and growth: education, welfare and other crucial aspects of public economy weren't able to keep up with the pace of private enterprises, thus creating enormous social distress and inequalities together with structural gaps in public finance. Moreover, the presence of significant lobbies and the role of state enterprises distorted the completion in many sectors and politicians had excessive power to influence (sometimes illegally) the economic guidelines of development of our country.

The controversies exploded at the start of the 90s, with a season of political scandals that revolutionised the context and forced governments to liberalise sectors and privatise the company it owned, as discussed in the previous chapter.

Joining the European Union and the following adoption of the European currency have remarked the lack of competitiveness of the productive system and the country

have been experiencing many difficulties to keep up not only with its long-lasting competitors, but especially with rising economies, such as the B.R.I.C.S. .

Some other unsolved issues that affect the evolution of the national systems are: the chronic low investments for research and innovation (both in the private and in the public sectors) and the consequent delay in the most hi-tech industries; high levels of unemployment, especially for the youngest part of the productive population; the enormous debt and structural deficit of public finance; the high cost of local workforce (due also to a strong role of the trade unions) that brings many companies to off-shore at least the productive stage of their operations.

## Chapter 2

### 2. DOES M&A CREATE VALUE?

Having proposed a description of the introductory concepts of M&As in the previous chapter, we will now present an overview of the literature in the field. Past studies have led to contrasting results regarding the opportunities of value creation and more than once, the role of M&A itself has been pointed out as the root of negative results. The ongoing debate shows not only the interest in the topic, which is also confirmed by the considerable amounts of cash involved, but also reveals the difficulties of addressing the issue with a unique method.

Our aim is to present the variety of elements that have to be considered when dealing with M&As, rather than taking a side in the discussion, so the following literature review is to be intended as a mere presentation of the most relevant contributions to the topic up to date.

Paragraph 2.1 will present pros and cons for each of the metrics, i.e. the performance measures, that have been used by the authors in the past.

The following section will then analyse possible causes of biases and distortions in these metrics and potential solutions to minimise them

Subsequently, the third paragraph will analyse those factors that have any sort of influence in the end result of value creation. Given the variety of factors belonging to this range, we will list only the most common ones, but it is for the sake of exposition, to remind the reader that many others could be included.

Section 2.4 will instead address “soft” variables, whose impact is not easily quantifiable, due to their non-measurable nature, but that have a strong influence on the success of the transaction, in particular in the latest stages of integration.

Finally, in the last paragraph, some results coming from previous studies will be

compared among each other, in order to give the reader a feeling of how intricate the matter is and how difficult it is to clearly state the best method to be applied in such an analysis.

## **2.1 The metrics**

Different studies throughout literature used different accounting measures for determining whether M&A operations leads to positive results or not. These performance measures are generally based on cash flows, accounting earnings, cash earnings or accrual-based operating cash flows as Amir Amel-Zadeh (2009) and other authors tried to carefully summarize in their work. As a matter of fact, Amir Amel-Zadeh admits that if one were to sum up all the numerous metrics employed in previous studies, he/she would count a total of 1224 permutations. This not only means that literature still lacks of many meaningful performance measures in its research, but it also leaves an open question on which measure should be the proper one to be used and shared in future studies. Moreover, other ongoing debates regard which benchmark is the most appropriate and which statistical test is to be chosen to prove its significance (Barber and Lyon, 1996).

The decision on which is the measure to be considered depends on how robust is the metric to change in accounting principles and company policies that could prevent empirical evidence to be reported and compared across samples of companies under different jurisdictions and over time periods.

By looking for a measure immune to extraordinary items and taxes, Meeks (1977), Cosh, Hughes and Singh (1980), Diaz et al. (2004) turned their attention to Earnings before taxes (EBT), calculated as Revenues minus Expenses excluding taxes or either by subtracting interests from EBIT. This measure allows comparisons across different countries belonging to distinct tax jurisdictions.

A measure of operating profit, such as EBIT, due to its characteristic of excluding both interests and tax expenses, was employed by Cosh, Hughes and Singh (1980), Ravenscraft and Scherer (1987), Dickerson et al. (2000), Desbriere and Schatt (2002), Cheng and Leung (2004) and Knapp et al. (2005). Earnings before interests and taxes are obtained by subtracting Operating expenses from Revenues plus Non-operating Income.

By adding back Depreciation and Amortization to EBIT we obtain EBITDA, a measure adopted by several researchers in their studies such as Linn and Switzer (2001), Rahman and Limmack (2004), Powell and Stark (2005) and Yen and Andre (2007).

What is probably the most commonly used performance measure for studying results from M&A activity is the Pre-tax operating cash flow, pioneered by Healy, Palepu and Ruback in 1992.

Pre-tax operating cash flow is obtained, following Healy et al.'s definition, as Sales minus CoGS (Cost of Goods Sold), minus SGA (Selling, General and Administrative) expenses, plus Depreciation and Amortization and then divided by the adjusted market value of Total Assets at the beginning of the year.

This return measure, unlike accounting return on book assets, is immune from the effect of Depreciation, Goodwill, Interest Expense/Income, and Taxes and therefore it is not influenced by the accounting methodology for the merger (purchase or pooling accounting) or by the relative payment method (being it either cash, debt, or equity) (Healy et al., 1992). By further examining this metric, we notice that it is affected neither by the method of accounting, because the asset base is considered at a market value, nor by the choice of financing, since it is calculated before deducting interest expenses, such as the cost of debt, and before allowing for any cost of equity. On the other hand, accounting income is obtained after deducting interest expenses and before considering any cost of equity, thus they are misleading if used for comparing mergers characterised by different kinds of

payment methods. In fact, when the deal is financed by debt or cash, merger's post-acquisition profits would be lower than for transactions financed by stock (Healy et al., 1992).

Healy et al. (1992) proposed a performance measure consisting in accrual-based cash flow return, which many researchers have then welcomed in their own studies. Just to provide some figures regarding this statement, Amir Amel-Zadeh (2009) finds 10 studies employing this measure out of the 26 he collected in his research. Among the others, Switzer (1996), Harford (1999), Ghosh (2001), Ramaswamy and Waagelein (2003), Moeller and Schlingemann (2005), Cornett and Tehranian (1992) and Megginson et al. (2004) adopted pre-tax operating cash flow in their studies.

Other researchers explored different performance measures such as Net income in Mueller's study (1980) and Net income before Extraordinary Items in Kumar's research (1984).

### **2.1.1 Possible accounting biases**

As we already mentioned, Healy et al. used a robust performance measure that would be widely used by the following studies, because of this desirable property. Nevertheless, Amir Amel-Zadeh (2009) argues that Healy's et al. performance measure still fails to solve accounting biases.

In fact, Operating Earnings, as defined by Healy et al., add back Depreciation and Amortization to Sales minus Cost of Goods Sold and Selling, General and Administrative expense committing a double counting mistake.

Another potential source of bias comes from the discretionary choice of Inventory accounting principles (for instance, in many cases a LIFO method leads to higher earning returns if compared to FIFO principles), of Net Working Capital changes,

consideration of Extraordinary Items in earning ratios, or even from Divestitures and Restructuring costs following an acquisition, which are sometimes classifiable as part of the Operating Income (Amir Amel-Zadeh, 2009).

Biases and distortions also affect the denominator (commonly referred to also as “deflator”) used to calculate earning ratios, which usually consists of either the market value of assets, the book value of assets or the book value of common equity and sales.

In order to exclude goodwill acknowledgment, acquisition accounting methods, depreciation policies and again inventory accounting principles from their metrics, many authors preferred to use market values instead of book values. Nevertheless, a market-value approach may also lead to distortions as it is related to forward-looking measures based on expectations (Amir Amel-Zadeh, 2009). Not to mention that there is no wide consensus upon the hypothesis of market efficiency, which would be crucial to validate the use of such measures.

Book value of equity as a deflator has its own contraindications, since changes in gearing ratios after a takeover could influence the return measures (Meeks and Meeks, 1981), and it is also influenced by accounting principles and firm’s pay-out policies.

Sales amount as a deflator, while it is robust to accounting biases, is not suitable, because it records profit margins rather than profitability and could become too complex for vertical M&As if part of the sales is internalised and therefore not reported in the performance measure (Meeks and Meeks, 1981).

## **2.2 The predictors**

Many scholars have studied which particular factor impacts the results of corporate takeovers the most. Some of these factors relate to the selection of the best target to

acquire or to merge with, others refer to the likelihood of potential synergies. Thus, there is a broad range of independent variables (also referred to as “predictors”) that can explain long-term performance following mergers and acquisitions.

Examples of these variables are the method of payment, the principle of accounting of the M&A transaction, the level of similarity between the businesses of the merging companies, the amount of cash resources available for the acquiring company or its level of debt. Some authors asked themselves if the size of the deal or the relative size of the two merging companies impact or not M&A performance. Furthermore, learning economies measured by the number of mergers already accomplished in the past by a certain company could influence the post-merger performance.

### **2.2.1 Method of payment**

Loughran and Vijh (1997), in their sample of 947 acquisitions between 1970 and 1989, observed that long-run stock price performance of acquirers paying with cash are higher than the performance of those paying with stock. In particular, with respect to a period of five years following the takeover, stock acquirers report -25% excess returns, whereas firms that propose cash tender offers reach +61,7% excess returns.

A similar conclusion is presented by Ghosh (2001) and Linn and Switzer (2001), who reported superior long-term operating performance for cash acquirers in comparison to stock acquirers.

In an attempt to find a correlation between form of payment and typology of transactions, Martin (1996) finds evidence that mergers are often financed with acquirer’s stock while tender offers are mainly financed by cash.

This finding is consistent with what we stated in chapter 1, when we said that only



cash-financed deals can be considered as “actual” acquisitions, whereas every form of stock exchange would imply a shared ownership among the two categories of shareholders, thus resulting in some sort of merger. Furthermore Martin (1996) discovers that stock acquirers report lower book-to-market ratios and higher historical growth performance, leading us to believe that acquirer's executives may be too optimistic regarding their company's growth opportunities.

Megginson et al. (2004) found that cash payments are positively correlated to long-term performance, but this result is significant only as far as operating performance is concerned. In particular, cash-financed mergers aimed at preserving or increasing corporate focus present the best long-term performance, while conglomerate deals perform the worst.

### **2.2.2 Acquisition accounting method**

Purchase accounting method and pooling accounting method lead to different post-merger performance for the acquiring company. What happens is, as stated by Healy et al. (1992), that the same transaction typically results in lower post-merger earnings under purchase accounting than under the other method.

This result is explained by the fact that the purchase method leads to higher Depreciation, Cost of Goods Sold and Goodwill expenses following the takeover. Furthermore, book assets will be larger under the purchase method, because of asset write-up (Healy et al., 1992).

### **2.2.3 Cash availability**

Harford (1997), in a study titled “Corporate cash reserves and acquisitions”, studied the acquisition behaviour of cash-rich firms by using a large sample of mergers and

acquisitions from 1977 and 1994.

What the author intends to prove is the “free cash flow” hypothesis, which states that cash-rich firms are more likely to make suboptimal investment decisions, due to the high levels of agency costs between the company executives and its shareholders.

Harford’s results suggest that cash-rich firms are more likely to undertake acquisitions than other companies, and are usually involved in larger deals. Moreover, abnormal returns from the announcement of the acquisition are negatively related to the difference between firm’s cash reserves and its predicted optimal level.

Regarding target selection, cash-rich firms are more likely to undertake conglomerate acquisitions, which would also explain why their transactions result in value destruction. In fact, as stated in Chapter 1, conglomerate deals have little synergies to exploit and are usually conducted to diversify the risk.

Moreover, the targets of cash-rich firms are significantly less likely to attract other bidders, thus further corroborating the hypothesis that cash-rich acquirers engage less valuable acquisitions.

As a general result, evidence corroborates the “free cash flow hypothesis” for the investment decision of cash-rich firms.

#### **2.2.4 Corporate focus**

Meggison et al. (2004) found a significantly positive correlation between corporate focus and long-term merger performance. Results indicate that focus-decreasing acquisitions lead to significantly negative long-term performance quantified in over 18% loss in stockholder wealth, 9% loss in firm value and a consistent decrease in operating cash flows within three years after the merger. On the other hand, merger aimed to preserve or increase corporate focus determine

mainly insignificant changes in long-term performance.

More into detail, Megginson discovers that for every 10% decrease in corporate focus (measured through a revenue-based Herfindahl Index), there is a loss in stockholder's wealth by 9%, a decline by 1% in operating performance and by 4% in firm value.

An other contribution to the study of focus-increasing deal performance comes from Healy, Palepu, and Ruback (1992), who observed higher long-term operating performance for mergers aimed at preserving corporate focus if compared to conglomerate deals

Another operation aimed at increasing the corporate focus is the divestment of non-core businesses, which results in significantly long-term performance, as stated by research on spin-offs by John and Ofek (1995), Daley, Mehrotra, and Sivakumar (1997), and Desai and Jain (1999).

Lastly, Kaplan and Weisbach (1990) find that acquirers in unrelated businesses divest their targets more often than those who operate with a business-focus logic.

However, opposite findings are provided by Agrawal, Jaffe, and Mandelker (1992), who find superior long-term stock-price performance in conglomerate mergers.

Finally, in the studies of Ghosh (2001) and Linn and Switzer (2001), no positive or negative statistically significant correlation is identified between corporate focus and long-term performance.

### **2.2.5 Friendly vs. Hostile acquirers**

Loughran and Vijh (1997) detected evidence that hostile takeovers outperform friendly acquisitions, when it comes to long-term performance. By looking at their results more into detail, excess returns across all tender offers increase from 24.5%

to 48,4% and then flatten by the second year after the deal, whereas cash tender offers keep on consolidating their gains. Their interpretation of these results, which is consistent with what Martin and McConnell (1991) had already presented, is that tender offers, which are most of the times hostile to the target's managers, may create additional value as new managers are hired.

More friendly mergers instead would need to benefit from the cooperation of the target's managers, therefore the additional value creation is less likely to occur (Loughran and Vijh, 1997).

### **2.2.6 Relative size of bidder and target**

Ramaswamy and Waagelein (2003) studied a sample of 162 firms to investigate long-term performance compared to industry benchmarks between pre-merger and post-merger periods. This analysis was conducted over a sample of acquirers characterised by different degrees of size with respect to their targets. As a result, it was discovered that post-merger performance were negatively correlated with relative target size, that is, bidder targeting larger firms showed lower post-merger performance than companies that acquired smaller targets. The authors suggested that firms acquiring relatively larger firms find it more difficult to integrate them into their own operations.

Moellera, Schlingemannb and Stulz (2004) analysed a larger sample, composed of 12 thousand acquisitions by public firms between 1980 and 2001, and looked for any sort of size effect on announcement returns. As a result, the authors found that announcement return was 2% higher for smaller acquisitions, regardless of the financing method.

Kruse, Hun Park, Kwangwoo Park and Suzuki (2003) studied a sample of 56 Japanese mergers in the manufacturing industry between 1969 to 1977 and found

that post-merger performance were negatively correlated with the relative size of the target firm compared to the acquirer.

Mantravadi and Reddy (2007), by analysing the Indian industry, found a significant decline in returns of net income on capital employed, in the case of targets that were bigger than their acquirers.

### **2.2.7 Price-to-book ratio**

Financial indices as the Price-to-Book ratio (P/B), also calculated as the Market cap divided by the Book Value of Equity, give the most contrasting results in literature. Megginson et al. (2004), consistently with Lang, Stulz, and Walkling (1989) found a weak negative correlation between price-to-book ratio and long-run performance in strategic mergers.

On the other hand, Rau and Vermaelen (1998) observed a positive relationship between the two variables, by observing that “value” acquirers (with high book-to-market ratios) outperform “glamour” acquirers (with low P/B ratios). As a matter of fact, the authors classified all the acquiring firms into "glamour", "neutral" and "value" firms by sorting them out by their book-to-market ratios at the moment of the acquisition announcement. In their findings, glamour bidders in mergers significantly underperform others in the 3 years following the acquisition, thus obtaining, on average, negative abnormal returns of -57%.

Firms with higher price-to-book ratios, i.e. the “value” acquirers, achieve superior performance compared to comparable firms, with statistically significant positive abnormal returns of 36% for tender offers and 26% for mergers.

## **2.3 Cultural aspects**

The several factors discussed so far have all been found to be correlated with post-merger performance at different degrees of accuracy. Being these elements measurable, they constitute the foundation on which to verify hypotheses and assumptions aimed at determining the best set of features underlying a successful merger or acquisition.

Nevertheless, other “soft” variables contribute to determine the exploitation of the potentials between acquirer and target companies, too. These factors can't be neglected when planning an M&A and have to be considered of uppermost importance, especially in the case of the cultural and organisational aspects surrounding the deal.

McGrath (2011) has considered cultural aspects as the hardest of the steps an organisation has to come across in managing a successful M&A integration, and provided several useful recommendations on this matter, which we will summarise in the following paragraph.

Since a successful integration between two companies concerns the people who implement it, three key aspects have to be managed: organisational coordination, selection and motivation of the staff and, lastly, cultural management.

The latter key aspect consists of a complex framework including three cultural layers, i.e. national, corporate and local. Each of them is relevant to the eventual success of the deal, hence, it is very important to be aware of their existence and able to manage them when required.

As a matter of fact, two merging companies can impose one of the two cultures, allow the coexistence of both, or create a brand new one. Depending on the level of integration following the merger it will be possible to maintain two cultural sets and exploit the competitive advantages of both or assimilate one of the two.

The risk associated with the latter choice is to lose the unique characteristics that added value to the target company. McGrath (2011) suggests that with a clear understanding of the M&A transaction's objectives it is possible to identify the required culture for each organisation.

This cultural alignment process doesn't only deal with values and attitudes but also with some firm-specific artefacts, such as organisational structure, rules, policies, performance management (goal settings, measures, rewards), staff selection, training, physical environment, leadership actions, communications and ceremonies.

Motivating staff facing an M&A can be challenging considering the amount of uncertainty surrounding the transaction. In particular, any kind of employee finds their different motivational needs on the basis of their positioning on Maslow's (1943) hierarchy of needs; M&A practitioners need to understand this variety of goals and needs when dealing with staff retention following an M&A transaction.

These and other aspects related to the culture of the merging companies have to be identified, analysed and properly addressed in order to align and motivate people to a common set of objectives leading to a successful integration.

## **2.4 Empirical evidence**

Authors all across literature have been providing an extensive amount of empirical studies aimed at understanding whether M&A creates value or not.

One of the pioneers in the field is Meeks, who published "Disappointing Marriage: A Study of the Gains from Merger" in 1977, in which he explored the topic analysing the UK environment with over two hundred mergers between 1964 and

1972. His findings asserted that companies involved in merger and acquisition deals reported declining profitability in the following period.

Cosh, Hughes and Singh in 1980 found only weak evidence of improvement of profitability based on EBT on Net assets and Net income on Book Equity after industry adjustments in their sample of almost three hundred mergers accomplished in the U.K..

Kumar (1984) selected a similar but larger sample of mergers and observed a decrease of profitability between post and pre-merger years in a range varying from -7% to -10%.

The same conclusions were drawn by Ravenscraft and Scherer a few years later, in 1987. The authors examined a sample of deals twice as big as the previous one, and within a larger time period, and noticed reducing performances as a consequence of merger and acquisitions. One year later, in 1988, Herman and Lowenstein analysed several hostile acquisitions between 1975 and 1983 and found diminishing Return on Equity. On the contrary, Kaplan in 1989 provides evidence of improving operating performance in his study titled "The effects of Management Buyouts on operating Performance and Value", studying 76 management buyouts in US completed between 1980 and 1986.

At the beginning of 90s, Healy, Palepu and Ruback published in the "Journal of Financial Economics" a study titled "Does corporate performance improve after mergers?", which strongly influenced later researches. As already mentioned in the previous paragraph, they used a different metric to assess gains from mergers and reported noteworthy increase in operating cash flow return. Their sample was made of fifty U.S. mergers in the period between 1979 and 1983, examined in a time range of five years around the deal. In the same paper, they also demonstrated a statistically significant correlation between post-merger improvement in operating



cash flows and abnormal stock returns at the merger announcement, thus corroborating the thesis that stock markets efficiently predict the potential operating gains from the M&A.

After this publication, following researches would divide in two parties, on the one hand we find the empirical contributions that support Healy et al.'s conclusions and on the other hand, other authors providing opposing outcomes, thus yielding a picture of mixed results (Amir Amel-Zadeh, 2009).

Switzer (1996), Ramaswamy and Waagelein (2003) and Manson et al. (2000) stood on the side of Healy et al. performance increase after mergers, in particular cash flow returns, by analysing U.S. and U.K. samples of takeovers across the '80s. The first of the abovementioned authors analysed more than three hundred mergers in the U.S., while the second focused only on 162 acquiring firms and the latter on 44 mergers in the U.K..

Furthermore, value creating acquisitions were found on a panel of 30 companies from the US banking sector as reported from Cornett and Tehranian (1992). Evidence of higher performance was also identified by Desbriere and Shatt (2002) who studied a sample of 161 French Leveraged Buyouts compared to their relative industry benchmark.

In the same year, Heron and Lie reported positive outcomes, observing that acquiring firms gained superior performance on control firms after the merger by around 2%.

Lastly, Rahman and Limmack (2004) found 7% higher operating performance for 94 companies undertaking acquisitions in Malaysia between 1988 and 1992.

Mixed results were observed by Ghosh in 2001, who analysed more than four hundred mergers in the U.S, and reported a noteworthy improvement in post-

merger performance for industry-adjusted results, but no significant increase when comparables were used as a benchmark.

Linn and Switzer, in the same year, broadened the sample size and found a significant improvement in post-merger performance for cash acquisitions and insignificant outcomes for stock-financed operations.

Another contribution came from the already mentioned Megginson et al. (2004) work, which reported augmenting operating performance in focus preserving or increasing mergers compared to conglomerate deals.

On the other hand, Harford (2000) found significant negative industry-adjusted post-merger performance for cash-rich firms. In the same year, Dickerson et al. (2000) examined a sample of more than two thousand companies finding long-term negative results for internally financed acquisitions and negative long-term performances for externally financed ones.

Knapp et al. (2005) studied 80 bank mergers in the U.S. finding significant underperformance of the merging companies when compared to their control group. Lastly, Moeller and Schlingemann, by analysing almost three hundred cross-border mergers, reported significant lower improvements in performance when compared to domestic ones.

Other authors report “grey shadows” made of insignificant results.

Cheng and Leung (2004) found no significant performance improvements for a sample of Hong Kong M&A deals.

Diaz et al. (2004) reported only some evidence of profitability improvement in their sample of 181 European bank mergers, and the same conclusion was drawn by Yen and Andre, in 2007, by referring to a sample of 287 mergers from 11 countries, with common British origins.

As Amir Amel-Zadeh (2009) points out, the outcomes of this empirical studies are not fully comparable because even when they consider the same cash flow

performance measures, samples come from different geographical markets with country-specific peculiarities or different benchmarks are used as part of the methodology.

A more general research has been conducted by Powell and Stark (2005), in their sample of 191 UK mergers between 1985 and 1993, who made many comparisons by using different performance measures and benchmarks. Their research corroborates the statement that post-merger operating results strongly differ due to the choice of different benchmarks and metrics.

## **Chapter 3**

### **3. THE ANALYSIS**

The aim of this chapter is to evaluate the results on merger-related performance after M&A transactions, as discussed in literature, by analysing the findings on Italian acquisitions. The chapter is organised as follows.

Section 3.1 and Section 3.2 describe the sample characteristics and the methodology followed in our analysis. Section 3.3 presents the results both on a short and long term perspective. Lastly, Section 3.4 presents the regression's variables and its results.

#### **3.1 The sample (cross-sectional dataset)**

In our analysis, we observe a cross-sectional dataset composed by all the recorded transactions between 2004 and 2009 in which both the acquirer and the target are Italy-based companies. The deal arena includes private and public enterprises.

##### **3.1.1 Period of analysis**

Our study is based on a sample of Italian M&A transactions undertaken during the period between 2004 and 2009. Data is mined from Mergermarket database among the deals concluded within the period starting from January, 1st 2004 to December, 31st 2009.

The sample period is selected with the twofold goal of focusing on recent deals and of accessing sufficient pre-merger and post-merger performance data.

The time range of our analysis indeed stands between 3 years after and 3 years before the deal was completed and therefore requires data coming from the period between 2001 and 2011.

### **3.1.2 Industries of interest**

The industries of interest were selected on the basis of the ATECO 2007 classification. This classification distinguishes 99 different sectors at 3 different levels of detail. Our analysis includes all the panel set except for utilities, financial services and government sectors (ATECO 2007 codes 35-40, 64-66, 84).

These 3 industries are excluded by our analysis for reasons further explained in the following paragraphs.

Unfortunately ATECO 2007 doesn't recognise common sectorial boundaries, for instance, "Retail" stands as a unique industry, although it comprehends firms across different traditional sectors. Thereby, we further divided each ATECO four-digit code into 18 industries as descriptive statistics summarise in Table 2. Moreover, our classification is detailed taking into account the position along the supply chain in which a company operates, by considering four different levels from upstream to downstream. This division lets us distinguish among conglomerate, horizontal and vertical M&A deals.

As a result, we initially mined 948 deals from the online database. Since we didn't consider unidentified acquirers, private investors, acquisition vehicles, multiple acquirers and transactions involving only specific assets of the target, our final population shrank to 596 deals for a total of 1148 companies.

Table 1 reports the descriptive statistics with respect to time distribution and takeover typology for all the companies included in the sample.

Panel A of the table shows that the greatest number of deals in our sample was completed in 2008 with 124 takeovers (21% of the total). The year with the

smallest number of transactions instead is 2009 with 62 takeovers (10% of the total), which we consider as the result of the financial crisis that was already affecting the country at that time. The shrinkage from 2008 to 2009 is evident from the graph in chapter 1, in the section regarding the history of Italian M&As. Evidence in Table 2 shows the predominance of sectors such as Constructions, ICT, Professional services, and Agribusiness in the M&A activity of our country. In particular, Agribusiness, Professional Services and ICT rank in the top three positions for both acquirer and target frequency. Indeed, as we can observe in Table 1 Panel B, acquirers belong to same business of their targets in a relevant portion of takeovers (81% of the entire sample). For instance, as we can see in Table 3, only 6 out of the 62 acquisitions performed by Agribusiness companies were conglomerate. If we consider non-diversifying takeovers, our sample is mainly made of vertical deals (56% of the subset) where synergies can be pursued through cost saving opportunities, by exploring new markets or enlarging product range. Horizontal M&A, which are usually undertaken to accomplish economies of scale and to reduce overhead cost of operations, are reported for the remaining 44%. Finally, conglomerate M&A, namely the deals which involve unrelated businesses, constitute only a small portion of the entire sample (19%).

### **3.1.3 Metrics**

Merger and acquisitions are frequently pursued to achieve different kinds of synergies, which lead to better performance than the two entities would achieve separately. A piece of advice for managers of the acquiring company, when it comes to selecting the target, is that they should firstly be aware of their company's core competencies and values, then carefully identify targets based on their value-added potentials and eventually foresee possible areas of synergies (Bertoncelij 2009).

The different kinds of synergies act as means of value creation and can be measured

through several variables, as we will examine in our study.

Given that many interpretations of synergies can be drawn from literature, in our study we decided to follow Rappaport (1998) and Devos, Kadapakkam, and Krishnamurthy's (2008) approach, which consist in grouping synergies into four typologies: market power, operating synergy, financial synergy, and tax shields.

The first factor, "market power", substantially depends on the relative size of the participants. The second, "operational synergy" is achieved through scale economies, while the third, "financial synergy" is created by reducing risk and lowering the cost of capital. Finally, "tax shields" derive from increased interests of the combined company. In our study we will consider only the first three groups. Operational and financial synergies are also defined by Gaughan (2007), the firsts consist of revenue increase and cost reduction, the second are the diminished combined cost of capital. Hitt (2001) presents operational synergies as an enhancement of the cash flow from operations, while financial synergies are achieved through a robust capital structure. A third typology consists in managerial synergies, defined as the creation of competitive advantage by the decision makers' ability to integrate the two companies.

Our study will include the following variables used as a proxy to measure operational, financial and market value synergies:

### ***Operational synergies***

Operational synergies can be categorised into two sets (Østergård 2009); efficiency/cost synergies that we will measure by EBITDA, Net Profits, EBITDA/Sales revenues, ROS, start-up and expansion costs, advertising and development costs, and revenue/growth synergies that we will indeed measure by

Sales revenue.

- **Sales revenue:** it measures the income realised by selling goods or services within the normal business activities of a company in a specified period.
- **EBITDA:** Earnings Before Interest, Taxes, Depreciation, and Amortisation, it gives a proxy of the operational profitability of a company.
- **Net Profits:** it measures the overall profitability after subtracting all the expenses of a company from its Sales Revenue.
- **EBITDA/Sales Revenue:** it is a ratio used to evaluate a company's profitability. This metric also indicates the level of process efficiency, which is to be monitored in order to keep operational expenses at a relatively low level.
- **ROS:** Return on Sales, it is also known as operating profit margin and is defined as operating income on Sales. This measure is a proxy of the operating efficiency too.
- **Start-up and expansion costs:** these are expenses due to the launch of a new business. Thereby, start-up and expansion costs are expected to rise following an M&A activity.
- **Advertising and development costs:** these are expenses which are also likely to incur after an M&A activity, because of the possible creation of a new brand or the development of a new product.
- **Operational free cash flows:** these are usually calculated by subtracting



Taxes, net Capex and changes in net working capital from EBIT and then adding back Depreciation and Amortisation.

### *Financial synergies*

- **Equity:** total assets minus total liabilities, it is a measure that is largely affected by the acquisition of another business.
- **Net Debt:** it is defined as the difference between the total financial positions (bank overdrafts, current portion of long-term debt and long-term debt) minus the available liquidity (cash, cash equivalents and marketable securities).
- **ROI:** Return on Investment, it is the ratio between operating profit and investments in the form of assets invested. This measure is often used to compare profitability over time and across companies.
- **Solvency ratio** measures the size of a company's after-tax income, excluding non-cash depreciation expenses, as compared to the firm's total debt obligations and gives a measure of how likely a company will continue to meet its debt obligations after the acquisition is completed.

Financial synergies are included in several frameworks such as Gaughan (2007), Hitt (2001) and Rappaport (1998) even though the “market efficiency” theory would reject the possibility of creating financial value through M&A activity, because it violates the hypothesis that any investor could reproduce the same portfolio by acquiring shares of the combining firms in the right proportion. Devos, Kadapakkam, and Krishnamurthy (2008) also observe in their sample that only a small fraction of takeovers is driven by the pursuit of financial synergies

while the majority looks for operational advantages.

### ***Market value synergies***

- **Number of Employees:** it provides a proxy of how large the company's business is. Furthermore, this variable can be negatively affected by the acquisition as a result of operational synergies (see, economies of scale in chapter 1).
- **Total Assets:** it also gives a proxy of the size of acquirers and targets, by measuring the total value of all current and long-term assets.

Market value synergies, or growth/revenue synergies are relevant for reinforcing the acquirer and enabling new competitive strategies, therefore they are a crucial driver in M&A activity, as argued by Habeck et al. (2000). Measuring these synergies, such as potential savings coming from cross-promoting and cross-selling many product categories under a unique brand or enhanced revenues achieved by broadening the customer base, is demanding and often imprecise, therefore cannot be properly priced within the deal negotiation. Nevertheless, there are some cost synergies that are easier to be quantified and which can also be predicted with some level of accuracy, as affirmed by Østergård (2009).

### **3.1.4 Benchmarks**

Many empirical studies throughout the literature adjust the measured performance with the expected performance of the firm, by separating the M&A event from other factors under investigation. The expected performance is then measured using a control group composed by all the companies of the industry to which the firm belongs. This approach is also needed in order to provide results that are comparable across industries, periods of time and macroeconomic trends. Results

can be in fact affected by firm-specific and industry-specific factors, which need to be netted when evaluating a large amount of companies.

By comparing enterprises with their own industry benchmark, we take into consideration sector-specific seasonality and any possible accounting impact resulting from particular regulations within industries. Nevertheless, in order to further attenuate any kind of distortion due to industry-specific factors, our sample doesn't include sectors such as finance, utilities and governmental services, which present strong peculiarities. Industry adjustment is indeed crucial, as earnings tend to revert towards their industry means, as stated by Stigler, Fama and French. (Stigler, 1963; Fama and French, 2000).

Therefore, our analysis includes benchmark performances mined from AIDA database (provided by Bureau Van Dijk). Our work was structured as follows. First, a list of all companies belonging to each ATECO 2007 industry was performed. Then, 7000 companies were randomly chosen from the list to constitute the benchmark sample. When a specific sector was made of less than 7000 companies, the entire group of companies was chosen in order to build the benchmark sample. We were forced to form a sample of 7000 companies for each sector, as this was the maximum pool that AIDA allowed us to handle considering the large amount of data related to it. Anyway, only a few sectors exceeded the limit and even for them, the coverage was more than satisfying.

This procedure was repeated for each operative variable and for each year in the period between 2001 and 2011.

Finally, we calculated the average values for each operative performance over all the years from the set of companies that constituted the benchmark.

### 3.2 The methodology

Researchers in this field use two different approaches to evaluate wealth effects of mergers and acquisitions. The first approach consists in studying the stock market reactions to the announcement of an M&A transaction in a short-time window, consisting of few days around it. The overall assumption is that an efficient stock market is able to predict the potential behind an acquisition and reacts to the announcement by imposing a certain increase or decrease of stock value to both the companies involved in the deal (Fama 1970, Ball 1972). The second approach consists in analysing data from public financial statements, comparing figures to industry benchmarks and observing improvements or reductions in the operating performance due to accomplished synergies between the two companies (Meeks and Meeks 1981).

Our study aims at analysing the effects of M&A in the Italian context, which, as we have seen in Chapter 1, is mainly made of small and medium size private companies. Therefore, the second approach, due to its nature of measuring differences on operating performance, is the only suitable for a sample of several non-listed companies. This way we were able to include the largest possible number of companies.

The event window of this study will include the three years after acquisition effective day (day 0) and the three years before.

The increase or decrease of the performance measure P for a company i relative to year t, compared to a certain industry benchmark j, is defined as follows:

$$\begin{aligned} \text{Benchmark adjusted Performance} &= \Delta P_{i,t} - \Delta P_{j,t} = \\ &= \frac{P_{i,t} - P_{i,t-1}}{|P_{i,t-1}|} - \frac{P_{j,t} - P_{j,t-1}}{|P_{j,t-1}|} \end{aligned}$$

In other terms, every year we calculated benchmark-adjusted performance, as the difference between the percentage increase (decrease) of the company performance and the increase (decrease) of the benchmark performance.

### **3.3 The results**

Our study confirms a trend of negative performance subsequent to M&A deals, with respect to almost all the variables we considered in our analysis.

As we can see from the graphs in Appendix 1 (all the graphs are related to mean and median values for each year), acquirer performance generally tends to increase in the period previous to the acquisition and then reverts its slope in the years after. This results in a downwards concavity (reverse U-shaped curve), which reaches its maximum around the year of the deal and decreases immediately after, as we can see in the graphs regarding Revenues from Sales, EBITDA, EBITDA / Sales and Operational free cash flows.

Targets, on the other hand, experience decreasing performances in the years preceding the transaction, then obtain an upward trend in the short term, which vanishes though, starting from the second year after the deal. The overall result of this behaviour is a downwards concavity in the years immediately around the transaction.

We will begin the analysis from the variables related to operational synergies, namely Revenues, EBITDA, EBITDA on Sales, Operational free cash flows and ROS. As far as the acquirer is concerned, they all report initial increasing slopes in performance, which eventually peak around year 0 (the year when the deal is made). As regarding the target company, we observe decreasing trends in the years preceding the deal, which eventually revert upwards, with an unusual peak in year 2 (except for revenues). We would explain this behaviour as the result of poor-

performing companies, whose efficiency is improved by the acquirer effort, especially in the short term (2 years following the deal).

This result is also coherent with the registered increase in start-up and expansion costs immediately after the acquisition, which seems to be mainly borne by the target company in order to get the most out of the expected operational synergies. No relevant increase of start-up and expansion costs is reported by acquiring companies. This again corroborates the idea of the bidder doing most of the effort to accomplish the expected synergies, even after the relevant investment it has already done to conclude the acquisition. Since these costs also include the expenses for broadening the company offer of products or services, we would also say that acquirers, want to further exploit all possible advantages related to economies of scope.

Advertising and development costs are also observed to be increasing in the acquiring company in the years following the acquisition. We would read this result, as a strategy to promote the brand after the important investment the company has made and to inform the customers of its new dimension, being it linked to a wider range of products, to a wider geographical coverage, to the entrance in new markets, etc.

These efforts contrast the slowly decreasing expenditures of the target, which can be read as a substitution effect, since the acquired company can rely on the expenses made by the acquirer.

However, it looks like synergies are not exploited as in the expectations preceding the deal, since the operating performance, which is on average greater than the industry benchmark, slowly declines over the years. It is indeed fair to say that even if we still observe positive operating performance after the deal, this is lower than measured before year 0. This finding leads us to state that M&A deals hinder the

superior performance of the companies over time.

Our results show an evident decrease of Revenues from Sales performance in the post-acquisition period for both acquirer and target. This result seems to indicate the failure in achieving market synergies, which also erodes the superior performances the companies showed in the period before the acquisition. The acquirer performance seems to be affected also by the performance of the target company, which was already showing a decreasing trend.

We would interpret this as the incapacity of acquiring companies to improve the operational performance of their targets, despite the good expectations that pushed them to undertake the transaction. These findings result to be even worse than in previous studies. In fact, whilst it is relatively common to find negative outcomes for acquiring companies, it is rare that both acquirers and targets report decreasing performance following the deal as far as sales revenues are concerned.

In terms of financial synergies, the reported trend shows features pretty similar to the previous ones. For instance, acquirers show increasing net debt up to year 0 and then, at that point, the trend reverts and eventually slowly declines.

We interpret this behaviour as the accumulation of debt for investing in the deal and in all the other related expenses (as we have seen, for instance, marketing costs increase around year 0). The debt is then slowly repaid over time, because new investments are reduced or self-financed by the combined company.

Target report an uptake to pre-acquisition results in year 1, which eventually decreases in year 2 and 3. This would lead us to think that Leveraged Buy-Outs are a relevant portion of the set, because of the sudden peak after year 0 that can be due to portions of debt transferred from the acquirer to the target and then slowly repaid by target performance. Therefore, we observe a decrease in the overall net financial positions of the combined companies.

Acquirers in our sample report solvency ratios generally lower than their industry benchmarks. This index, consistently with the findings on net debt, decreases around year 0 and goes up again in the following years, even if it doesn't reach pre-acquisition levels within the time window we analysed.

By shifting our focus on market synergies we observe that the number of employees increases for both companies around year 0, when the two participants reach their peak values. This obviously results in a larger scale of the combined enterprise, which will acquire a greater bargaining power both upstream and downstream along its supply chain.

The decreasing trend of the index, lets us assume that economies of scale have been achieved, so that less workforce is needed to perform the same operations throughout the organisation.

Lastly, Return on Investment presents similar trends in both targets and acquirers, with no significant changes in the evolution over time. This finding has to be interpreted as no significant changes have been experienced after the acquisition, despite potential optimistic expectations of the bidder, whose aim was that of improving target efficiency.

### **3.4 The Regression analysis**

Having studied the framework of contrasting results coming from past literature and having analysed the overall operating performance trends observed in our sample, we now want to give the reader a deeper understanding of which possible determinants underlie the success of M&As.

Some of these factors have already been introduced in Chapter 2 when presenting



literature findings, and are now examined on our sample. These variables are namely the relative size between acquirer and target, their cash-richness, their debt ratio, and the acquisition corporate focus.

Our analysis also includes other possible predictors, as follows:

- pre-acquisition sales growth;
- deal size;
- the expertise of the acquirer, namely a dummy variable taking into account whether the bidder has already undertaken an acquisition in the past;
- the geographical distance between the two participants;
- the status of the target company at the moment of acquisition, namely a dummy variable which takes value 1 when the target was in liquidation;
- the payment method, namely a dummy variable which takes value 1 when the payment is made with cash and zero otherwise;
- the percentage of controlling shares acquired by the bidder.

Our dependent variable is a cash flow ratio, defined as Operating Cash flows divided by Total Asset. We selected this performance measure because cash flow returns are commonly used in literature, as we discussed in Chapter 2, and allow for comparison with other studies.

Cash flow returns are obtained by the difference between the average of post-acquisition performances (year +3, year +2, year +1) and the average of pre-acquisition performances (year -1, year -2, year -3). Furthermore, Cash flow returns are adjusted by the industry benchmark.

All the results that will follow are shown in Table 27, whereas a brief explanation of the variables and the models is given in Table 28.

The initial study was conducted on the whole sample, by using all the 15 variables

of our analysis (Model A). Then we decided to draw from the sample the two main segments that contributed to the M&A activity in our period of interest, i.e. services and infrastructures (respectively model B and C). The distinction between these sectors is meant to highlight potential differences between businesses, deriving from the different synergies that can be achieved through the acquisition.

We then verified whether the 6 assumptions of the Gauss-Markov Theorem held in our sample, in order to have a BLUE (Best Linear Unbiased Estimator) OLS (Ordinary Least Squares) regression.

- 1) **Linearity** in the parameters: our dependent variable can be described as a linear combination of its predictors, plus a stochastic “noise” (n.b. this assumption holds even when variables are not linear)
- 2) There is **variability** of the predictor values across the sample
- 3) The **sample** is assumed to be **random**, since it includes all the deals within the time period of interest, which had enough information to be regressed
- 4) **Zero-conditional mean**: we ran a graphical Kernel’s density analysis to assess whether the population residuals were normally distributed with mean zero and the results were satisfying. Nonetheless, we also ran a Shapiro-Wilk test whose results confirmed our first impression
- 5) **No perfect collinearity** in the regressors: we assume that none of the predictors can be written as a linear combination of the others. Nonetheless, we analysed their correlation matrix and regressed each of them on the others, to assess which were mostly influenced by the others (by observing the resulting adjusted  $R^2$ ). No strong correlation was observed, but if a strong correlation was present, it would have affected the standard deviation values, thus leading to poorer t statistics.

6) **No heteroscedasticity**: it doesn't affect the unbiasedness, but it is desirable to have the most efficient estimators. We ran a Breusch-Pagan test, whose high p-value, gave us no evidence to reject the null hypothesis of homoscedasticity. Therefore, we didn't need to apply any correction for robust inference

Then, we tried to find the most-fitting combination of variables within our set, for each of the 3 original models. In order to do so, we used the Bayesian Information Criterion (also known as Schwarz Criterion, or shortly SBIC). This approach is based on the likelihood function and adds a penalty related to the number of regressors in the model, so to avoid overfitting problems and to increase its predictive power.

The results of this process are three models (model D, E, F), one for each of the sample sets, which differ from the previous ones for the number of regressors.

Finally, we ran Ramsey's RESET test on each of the resulting models, in order to look for potential misspecification forms. Only Model E presented a low p-value, which gave us enough evidence to reject the null hypothesis of no missing functional forms. Therefore, we added the squares of all the continuous variables in our set (model G); after this change the same test gave no evidence for rejecting  $H_0$  again.

Besides, the high value for the Adjusted  $R^2$  shows a very interesting goodness of fit of the model, when applied to the Service sector.

### **3.4.1 Regression findings**

In this section we will report the observed impacts, as showed in Table 27.

The amount of shares acquired seems to have no impact on the performance, this is likely due to the high values of this variable in our sample (the lowest one being 45%), which ensure, in any instance, the control to the acquiring company.

The payment method seems to have a significant impact only with respect to the Service sector. In particular, we observe poorer operational performances for those companies that pay only by cash. We would read this result as a consequence of what we stated in chapter 1, in fact, when stock is involved in the transaction, the operation tends to have some common features with a merger.

Therefore, we would say that “mergers”, give more room for synergies than pure acquisitions.

Acquiring companies which filed bankruptcy, seem to have positive impact on the acquirer performance, especially in the Infrastructure sector. This finding is very interesting and can be related to the nature of the industry, with big incumbents that have the opportunity of acquiring bankrupted competitors and easily exploit the relative economies of scales.

Interestingly geographical distance doesn't appear to be a relevant factor in any of the model. Given the Italian context, where local entrepreneurship is an established business model, we would have expected that deals made within the same geographical had brought to better results.

The deal value, measured as the natural logarithm of the transaction price, has a positive effect even though statistical significance is reported only with respect to the Service industry. From our point of view, its positive contribution to cash-flow returns may be due to an informed and careful management decision related with the demanding size of the investment. Other possible explanations have to be related with the characteristics of the markets: incumbent enterprises that merge to create more favourable market conditions such as quasi-monopolies or to unify two strong brands, usually strengthen the positions of both participants. In any case, evidence does not prove diseconomies of scale, due to more demanding control and communication procedures.

Acquirer debt ratio turns out to be positively correlated with cash flows and statistically significant in most models. We link this trend to the growth in net debt reported in the year of the deal by many of the best performers. Indeed, the best performance is obtained by those companies that have resorted to an LBO to pursue their acquisition. Reasons for success could depend on the fact that an acquirer will carefully assess his acquisition plan before borrow the necessary resources externally. At the same time, financing institutions will push for the desired results to be achieved too. In particular, as we can observe in Model F, where the sample consist only of infrastructure companies, this result is noteworthy because of the industry-specific features and the larger volumes of investments required.

Moreover, our result is consistent with Maloney, McCormick and Mitchell (1996) who showed that announcement returns for bids were increasing, as the leverage of the acquirer rose.

Target's debt ratio always shows a negative impact, which is statistically significant in two models, namely the ones regarding the Service sector.

Acquiring a company with relatively high debts means incurring in higher financial charges, higher cost of capital and difficulties in raising funds. Furthermore, a highly leveraged company could come out from a difficult period, thus, the negative value of the coefficient could also demonstrate that, in these cases, the acquirer experiences severe troubles to improve target profitability.

Acquirer's cash-richness is always negatively correlated, and has statistical significance in 4 out of 6 models. Our results are consistent with the "Free Cash Flow" hypothesis, which forecasts suboptimal investment decisions for cash-rich firms, due to the high level of agency costs between the company executives and its shareholders. As we already mentioned in Chapter 2, Harford (1977) found a

negative correlation between cash-rich firms and post-acquisition results, thus proving with his study that cash-rich firms tend to make significantly worse investment decisions than others.

Target's cash-richness is always positively correlated and often significant in half of the models. On the target side, a large cash reserve could be revealing suboptimal behaviour by management and a failure of internal control mechanisms (Harford, 1977). A target with large reserves of cash may lower the cost of capital for the acquirer, even if this would be opposed by Modigliani-Miller's hypothesis, which states that no value can be created through changes in the financial leveraging of the company. Furthermore, a target with greater cash availability allows financing new investments both for itself and for the acquirer.

The relative size measure between acquirer and target does not affect cash flow returns, this finding would exclude any possible hypothesis against or in favour of value creation through the acquisition of smaller companies.

The predictor that takes into account the number of acquisitions accomplished by the bidder is never statistically significant. Thus, it seems that having undertaken an M&A in the past acquiring learning economies from previous experiences doesn't affect the success of an acquisition.

The dummy variable taking into account the conglomerate nature of the deals is never statistically significant in our models and the same can be said for the one regarding horizontal operations. We would read this outcome, by saying that value creation depends on the synergies that can be achieved rather than on the purpose of the acquisition. This result does not corroborate Megginson et al.'s (2004) findings, which showed positive correlation between corporate focus and operating performance.

Pre-acquisition sales growth positively affects performance and is statistically significant in half of the models. It would therefore seem that a successful acquirer, which is already over performing among its peers is also able to gain more value from M&As. For instance, among other factors, there may be potential cost savings through economies of scale, which therefore allow a company that is already performing well on the sell-side, to increase its margins. According to us, a company that is growing fast is likely to follow a successful and forward-looking strategic vision, if compared to those firms that undertake acquisitions as their last chance to revitalize their business.

A final comment is made on the effects of the squared values in model G. None of these seem to be relevant, except for SQR\_CASHA. The positive value suggests a diminishing effect of the negative impact of the original variable. Therefore, it seems that cash-rich companies perform worse, but with a declining trend as liquidity gets bigger.

# Chapter 4

## 4. CASE STUDIES

This chapter will examine into detail three specific acquisitions selected from different sectors: textile, agribusiness and industrial. These acquisitions brought to heterogeneous results for the acquirer and the target company, thus they represent a picture of different possible outcomes an M&A can lead to.

Poltrona Frau S.p.A., Granarolo and Fintyre are three Italian companies that chose to undertake an acquisition in their respective industries.

While Poltrona Frau reduced its performance after acquiring Cassina S.p.A, Fintyre represents a success achievement. Granarolo on the other hand is an example of mixed results where the target improved its performance at the expense of the acquiring company.

### 4.1. Poltrona Frau-Cassina

#### 4.1.1 Poltrona Frau S.p.A

Poltrona Frau S.p.A is an Italian furniture maker, specialised in the production of beds, sofas, chairs and armchairs for private housings and desks and cabinets for offices; furthermore, the company is also generally appreciated by the automotive industry, as the design of the interiors of many Ferrari, Lancia and Alfa Romeo cars demonstrate. The core element that distinguishes its production is the leather they use almost in every product and which has contributed to the fame of the firm and has been requested by BMW, Mercedes, Mini, and many other car manufacturers,



as well as flying airlines and train firms for their luxury products.

As they state when presenting the company, quality is the driver of each and every creation and their aim is of keeping the customer at the center of the attention and focusing on extreme comfort and fashionable design.

The company was born in Turin in 1912, from the entrepreneurial idea of Renzo Frau and soon attracted the interest of the luxury market, as in 1919 it was appointed as the official supplier of the royal house. The history of the company goes along with the changes of the Italian context during the 20<sup>th</sup> century, changes that are shown and often anticipated in the range of creations year by year, thus proactively shaping the directions of what is defined as interior design. Furthermore many artists collaborated in the creation of the models, for instance Gio Ponti and Frank O Gehry, who helped the company to enlarge its offer and expand its interests also to ample spaces, such as galleries, opera houses and villages. The current president, Franco Moschini, acquired it in 1962, together with Nazareno Gabrielli group, from which he eventually bought the remaining shares in 1990 through a LBO (Leveraged Buy-Out). In the last decade the company has pursued a growth strategy through M&A operations, which resulted in the takeover of many companies both in the Italian market (e.g Cappellini and Cassina) and abroad (Gebrüder Thone).

Starting from 2006, the company is listed in the Italian financial market under the “STAR” segment, with a market cap of 120 million euro approximately, as of September 2012. 2011 reported net loss amounted to 2.5 million ca. (approximately half of the loss of the previous year), with an EBIT of 7.3 million ca. (data coming from Borsa Italiana database).

The controlling group is Charme Investment S.C.A., which owns more than 52% of the total stock. Charme, as the name reveals, is a society of investments having Luca Cordero di Montezemolo as the leader; the Montezemolo family is indeed

represented in the Board of directors by the vice-president Matteo Cordero di Montezemolo.

#### **4.1.2 Cassina S.p.A**

Cassina SpA is an Italian manufacturer, specialised in the creation of luxury design furniture. It was born in 1927, in Meda, in the area of Brianza, from the idea of the brothers Cesare and Umberto Cassina. The first important growth of the company takes place during the 50s, when it pioneered visionary design perspectives and encouraged young and talented designers and architects to translate their ideas into reality. As the production shifted from handcraftsmanship to serial production, the company focused more and more on the research process, especially experiencing the use of new materials in the manufacturing phase.

Its culture and mission are oriented to the creation of innovation through the combination of technological skills with traditional craftsmanship, even though the manufacturing process is conducted in an industrial scale. Due to the purpose of merging new and old, the company has drawn inspiration from various artists, among whom Gio Ponti (who, as we mentioned, collaborated also with Poltrona Frau), Le Corbusier and Frank Lloyd Wright. An entire collection, called “I Maestri”, is the masterpiece coming out of these partnerships over the years and is still considered as the hallmark of the company.

The mission nowadays is to find the newest materials and structural technologies to enhance customer perception of maximum comfort and extreme elegance.

The company has a book value of 48 million ca., as of December 2011, and is completely controlled by Poltrona Frau S.p.A since June 2005. It operates worldwide, with 4 DOSs (Directly Operated Stores) situated in New York (2) Paris and Milan. The whole production process is internally controlled, starting from

wood processing up to the shipment in the stores. The distinctive element of its catalogues is the capacity of creating pieces to be produced in an industrial scale without degrading their overall quality.

The two business divisions in which it operates are called “Residential” and “Contract”.

”Residential” is the business segment dedicated to luxurious pieces of furniture, including the abovementioned collection “I Maestri” and another product line “I Contemporanei”, coming from the cooperation with some of the most representative modern design icons of the World.

”Contract” is instead dedicated to the production of interiors for cruise liners, hotels and restaurants; it has also expanded in the 90s to include furniture for a high-end showrooms and flagships stores.

### **4.1.3 Deal characteristics**

The deal between Poltrona Frau S.p.A and Cassina S.p.A belongs to the area of the horizontal transactions, as we presented in Chapter 1. The benefits that the acquirer intends to achieve through the operation are mainly linked to the opportunity of increasing market shares (even if the two firms did not compete in all their markets) and widening their products range. Other synergies are more likely in the design phase, where the concept and the presence of relevant players make the difference, rather than in the production side, where economies of scale are not a matter of primary concern for a luxury business, as the one we are speaking of.

As we mentioned in the presentation of the bidder, Poltrona Frau has pursued a policy of external expansion through M&A deals over the years (the one with

Cassina being probably the most important of them) with the purpose of the creating a pole of excellence in the interior design field.

The deal was operated through a LBO (Leveraged Buy -Out): in fact, in order to acquire Cassina SpA, a competitor whose scale was almost as big as the one of the bidder, Poltrona Frau created a Special Purpose Vehicle company, Cassina Holding, which borrowed 64 million euro out of the 120 needed ca. for the operation. At the end of the deal, Poltrona Frau owned 80% of the target (participation that increased in 2008 at the current value of 100%) and doubled its enterprise value, gaining also decent margins thanks to the good operating activity of Cassina SpA (EBITDA of 15% in 2004, before the acquisition).

The deal was also a prelude to the listing of the company, in November 2006, so that the organisation could introduce itself to the market as a leading company in its industry, having a considerable size and good operating profits.

#### **4.1.4 Operational Results**

Our finding on the Poltrona Frau's acquisition of Cassina report a general decrease of sales growth from year 0. As the general trend shows, the acquisition year correspond to the peak of sales growth and comes before a series of decreasing over performance if compared with the industry benchmark. However, if we compare in Table 1 the second year previous to the acquisition (the third year is unavailable since data was missing in the database), with the second year following it, we observe a superior performance for Poltrona Frau relative to sales growth compared to its industry benchmark. A similar trend is observed for Cassina, the target company.

As we can see from Table 3 EBITDA for Poltrona Frau reaches a peak the year next to the acquisition, then it turns rapidly to negative performance compared to the industry benchmark. Differently from the acquirer, Cassina instead gained a positive EBITDA performance compared to year 0 when the acquisition was completed.

Net Profits also, similar to EBITDA show a peak of performance in year 1, then they decrease remaining superior to industry benchmark and higher than in the period previous to the acquisition in 2005. Cassina also shows superior Net Profit results compared to its industry benchmark the third year after the acquisition overturning the negative performance previous to 2005.

Results on EBITDA/Sales, as shown in Table 1 provide mixed results before and after the acquisition. Therefore, it's difficult to clearly understand a possible trend of increase or decrease of operative efficiency. For the first 2 years after the acquisition we observe an increase in EBITDA/Sales performance, but the third year reports a negative result, probably due to reasons not depending from the takeover.

Total Assets for Poltrona Frau report a sharp increase during the year of the acquisition, clearly as a consequence of the takeover of Cassina. One year before, in 2004, we also observe an increase in Total Assets as a result of an other acquisition made by Poltrona Frau, the takeover of Cappellini, an Italian luxury furniture group, in order to expand its operations and customer base. During the years following the acquisition made in 2006, we do not observe any other relevant change in Total Assets, due to the absence of other acquisitions from Poltrona Frau.

Equity increases, if compared to industry benchmark, every year since year -2, until 2007, two years after the acquisition. This trend is explained by the increase in shareholder's equity and treasury shares. The first increased double times in 2004 and four times in 2005 because of the acquisitions of Cappellini and Cassina. The

second increased three times in the year of acquisition of Cappellini. Apart for these exceptional events no other relevant change occurred after 2005. The decrease in Equity three years after the acquisition is due to an increase of the industry benchmark performance.

Table 1 shows a strong increase of the Net financial position in the year of the acquisition, due to Poltrona Frau's Total debt that increased from 57 million Euro to 248 million Euro, mainly due to short term bank debts inherited from Cassina and incurred because of the deal operation. Debt on Equity ratio increased more than three times between the acquisition year and the previous one. In the period following the acquisition no relevant changes are reported.

Return on Sales growth, as we can see from Table 3 is negative compared to the industry benchmark in the period before the acquisition despite Acquirer's ROS in absolute terms the year of the takeover is 4,95 and it boosts to 8,31 and 8,91 on year 1 and year 2.

Cassina, on the other hand, doesn't show any relevant change in ROS performance.

A similar trend is observed with Return on Investments for Poltrona Frau that underwent a strong improvement in both of the two years after the conclusion of the deal with Cassina. No significant changes are observed for the target company.

No start-up and expansion costs are sustained by the acquirer in the period following the acquisition process, neither advertising and development costs. No relevant changes in this kind of expenses are reported for the target company. The absence of operative costs can be due to the fact that the acquisition's purpose was mainly to expand the customer base with an already existing and consolidated brand in order to offer a larger niche product portfolio. This strategy doesn't require significant operative synergies aimed for economies of scales, as already previously mentioned.

The main increase in the number of employees is shown in the year of the acquisition as it raised from 480 to 981 across the takeover period. Employee profitability didn't change much between the years across the acquisition.

Finally, Solvency ratio is strongly influenced by the variations in firm's total debt obligations, therefore data shows a general under performance related to this solvency measure for the acquiring company. Solvency ratio decrease from 36,04 to 20,81 during the acquisition year, but it remained higher than the industry benchmark in absolute terms all over the period following the takeover.

#### **4.1.5 Conclusions**

In our analysis, we compared the variation of several performance measures of the acquirer and target companies with their respective industry benchmark. As a result, if we consider the difference between post and pre acquisition performances we observe a general decrease of superior measure of effectiveness and efficiency. Earning performance is negative as shown in Table 3 for EBITDA and EBITDA/Sales. Furthermore, Sales decreased even though the purpose of the considered acquisition was mainly of broadening the customer base with a larger product portfolio. Negative performance is also reported for Return on Sales, Free Cash Flow to Firm and Free Cash Flow to Firm on Total Assets.

In conclusion, we would claim that the outcome of this takeover certifies a reduction in superior pre acquisition performance for the bidder company.

## **4.2 Granarolo - Yomo**

### **4.2.1 Granarolo S.p.A**

Granarolo S.p.A is an Italian group operating in the food industry, in particular in the realisation of dairy products (milk, yoghurts, cheese, etc.). The original company was founded in Bologna, in 1957, under the name of “Consorzio Bolognese Produttori Latte”. After the initial decade, the consortium begins to expand and attracts under its influence many other dairies of the region. Starting from the 80s, the organisation registered an enormous growth through an intense M&A activity, which lead to a more complete cover of the territory and is not yet over. The company forms a group together with Granlatte S.a.r.l., which is located upwards in the value chain, in the agriculture stage where the milk is collected; then the transformation is realised in one of the seven production sites owned by Granarolo itself.

The company is a cooperative, directly participated by more than 1000 cattle breeders through Granlatte, which owns more than 75% of the company stock, whereas the biggest external shareholder, possessing a 20% ca. of the voting shares is Intesa San Paolo S.p.A. (the bank group entered the company during the acquisition of Yomo as we will discuss in the next subparagraphs). As of 2011, its revenues sum up to 850 million euro approximately, with an EBITDA of 61 million euro (EBITDA margin equal to 7.2%) and a net profit of 13 million euro.

The company is the market leader for fresh milk production and distribution, second best for UHT milk and under-ripe cheese and together with Yomo S.p.A. is the most important Italian player in the realisation of yoghurts. Fresh and UHT milk are the core business of the firm, covering more than 60% of the total revenues and reporting a slight flection over the last two years.



The three core elements of Granarolo's business, as reported in its mission, are: the control of the entire supply chain, from the collection of the milk up to the distribution in the stores; the excellence of the production, subject to strict quality controls to provide a fresh, healthy and safe product to the end customers; the passion for innovation, which led over the years to bring several original ideas into the market, such as the high-quality segment, a complete range of biological dairy products, a lactose intolerant line, and so on.

The latest strategies of the Board are directed towards an international expansion, which started in 2011, when Granarolo Iberica SL, completely owned by the parent company, was created with the purpose of beginning dairy products distribution in Spain.

#### **4.2.2 Yomo S.p.A**

Yomo S.p.A is, as of today, only one of the brands in the Granarolo group, following the acquisition which took place in 2005. Before that, the company was originally founded in 1947 by Lunir Vesely (the inventor of the homogenous coagulated yoghurt); the business has always kept a family conduction and reached its peak of growth and success in the 90s. At that time, it had participations in many controlled brands, which both broadened the product range (with cheese and other dairy products) and allowed the organization to extend its influence over the value chain (from the purchasing of the milk enzymes to sales and distribution). The production was mainly conducted in 4 sites, the largest of which in Pasturgo di Merate (Milano), the birthplace of the company, whereas 7 other locations all across Italy were used as commercial nodes for the distribution network.

The failure of the company was due mostly to the entry of European and Extra-European competitors in the Italian market (the most important being Lactalis and

Danone), which made Yomo lose bit by bit its market shares. A restructuring was then proposed by the former managing director, Francesco Pugliese, but it didn't achieve the expected results and the group's account worsened so much that losses assumed alarming proportions. Debts to suppliers and banks were amounting to around 100 million and the board was forced to lodge 95% of its shares as security with Banca Intesa, for loans expiring in 2004, thus pushing Yomo to the edge of bankruptcy.

Due to this crisis, the company couldn't afford to pay many of its workers' salaries and was forced to place 70 of them on the special Wages Guarantee Funds (cassa integrazione straordinaria) and 210 on the Ordinary Fund (Cassa integrazione ordinaria). When the Milan-based company was taken over by Granarolo, it presented a tragic situation: the production was intermittent due to frequent lack of material and the whole workforce (800 workers) were risking their jobs and complained for delayed and missing payments.

At this point, the union trades and the province administration of Milan, as well as the political institutions of the areas where the other production sites were located, took the lead to avoid bankruptcy and prevent what would have been a social disaster involving 800 families. Meanwhile, the food sector trade union called a day of industrial action (March 15<sup>th</sup> 2004) and set up "permanent assemblies" in all of the 4 production sites.

#### **4.2.3 Deal characteristics**

Thanks to the increasing pressure rising from these institutions and the media, the negotiations speeded up. The company was actually discussing the possibility of selling with many, Italian and foreign, potential purchasers for several months, but without reaching any agreement. The situation was of continuous uncertainty, till a

breakthrough came at the end of March 2004, with the official announcement of an agreement for the takeover by the Granarolo Group.

The Emilian group was preferred to the other candidates, primarily because of its Italian roots and secondly because of the conditions of its proposal. The then Granarolo's CEO, Luciano Sita, indeed promised a plan to restore Yomo's ordinary commercial and productive activity and to guaranteed not to fire any of the employees at all the the group's manufacturing sites. Due to the critical financial situation, the procedure of the transaction needed to be supervised and approved by all the trade unions involved both at national and local levels. After that, an agreement (concordato preventivo) was required with the creditors to avoid declaring bankruptcy by placing all Yomo's assets at the disposal of its creditors (under the terms of Bankruptcy Law, RD 16.03.42). This deal granted the company a leasing contract, so that the production and commercial activities could continue without interruptions.

The company workforce was temporarily transferred to a special purpose vehicle created by Granarolo and maintained all the rights it had before, while keeping all the agreements previously stipulated between Yomo and the Trade Unions and undertaking new arrangements to address the most immediate concerns at that time.

As stated, by Mr Sita himself, the takeover fitted perfectly with Granarolo's mission to valorise the high quality of Italian agro-food products. The transaction indeed belongs to the area of horizontal acquisition, with the double goal of imposing Granarolo's brand on the market and broadening the product range of the company. Moreover some synergies of scope were achievable, thanks to the similar logistics and distribution channels and the already existing relations with analogous customers.

The acquisition was carried out in a period in which the entire Italian industrial system was suffering: in January 2004 (data coming from ISTAT, Istituto Italiano di Statistica), the turnover of the industry dropped by 6.5% over the same month of 2003 and a similar decrease was registered in the orders from customers. Furthermore, in the first three months of 2004, 486 companies throughout Italy applied for using special Wages Guarantee Funds for their employees, as a measure for handling serious labour surpluses in periods of structural crisis, rather than mere financial difficulties.

#### **4.2.4 Operational Results**

Our findings on the Granarolo's acquisition of Yomo report a general growth of Revenues from Sales for the bidder company already before the acquisition was accomplished. As reported in the 2006 Annual Report, exactly 2 years next to Yomo's acquisition, "Turnover reached 907.7 million Euro, an increase in value by 2.01% (+17.9 million compared to 2005) and the volume of 3.03%. Growth was driven by yoghurt and cheese, with the resumption of brands like Yomo, [...]". On the other hand, an opposite trend is shown by the target company that drastically reduced its Revenues from Sales nearly risking bankruptcy. Acquirer's sales growth is confirmed even when compared with the industry benchmark except for year 2 where the relative performance is -7%. Nevertheless, this result is recovered by a positive relative performance on the third year that make us conclude, overall, a superior post acquisition performance of the acquirer company measured by Revenues from Sales.

As we can see from Table 5 EBITDA, Granarolo reverses its positive progression the same year of the acquisition. Differently from the acquirer, Yomo reveals a negative EBITDA all over the pre acquisition period until one year after. Then, it

upturns to positive values on year 2 and year 3. The two different progressions remain identical when compared to industry benchmark; EBITDA shows a negative outcome for the acquirer and a positive one for the target on an overall perspective across the acquisition time window.

Net Profit too, similar to EBITDA, shows positive results in the two years preceding the acquisition, while they turn negative after it. This change is evident one year after the acquisition is accomplished, when Net Profit fell from +5,6 million Euro to -6,3 million Euro. One year later, Net Profit decreased further on, thus recording a strongly negative growth performance. Naturally, this underperformance does not change when compared to industry benchmark.

As a result, Net Profit decreased to -56,7 million Euro despite a positive EBITDA. The reason is due to Extraordinary income and expenses as a consequence of the acquisition undertaken with Yomo.

Yomo's loan portfolio (trade, tax, and more) has been set aside for doubtful accounts a sum of 6.7 million Euro, the participation in Sitia-Yomo S.p.A. (57,4 milioni di euro) was written down by 40 million Euro, another credit boasted to Yomo of 27.3 million euro was devaluated by 60% to 16.3 million Euro.

Among other reasons, as stated in the 2006 Annual report, "Depreciation of tangible fixed assets relating to industrial assets grew in 2006 to 0.9 million Euro, as a result of investments in facilities on Yomo area and the industrial area of Milan. There is, therefore, an increase in the incidence on sales from 2.1% in 2005 to 2.2% in 2006".

To sum up, the investments relating to the acquisition of Yomo, together with those required for the purchase of plant and equipment have absorbed 105.9 million Euro, consequently generating a negative financial cash flow of 46.6 million Euro.

By analysing the target company, we can again notice an opposite trend: Net Profit remains negative all over the pre acquisition time series until year 2, when it turns

positive and strongly increases from then on. Considering the industry benchmark for the target company, the outcome remains outstanding as resulting from the difference between the overall performance before and after the acquisition year.

Results on EBITDA/Sales for Granarolo, as shown in Table 5, show a sharp decrease of performance in the year corresponding to the takeover. Efficiency is then recovered in year 2 and even more in year 3, in part as a result of several investments between the acquirer and the target aimed at restructuring production and logistics. The same results are shown when adjusted by the industry benchmark.

The outcome from the target perspective is positive, if we consider that negative results are reported in the year previous to the acquisition and strong positive performance is instead characterising the latest period. Therefore, in the overall time window the target experiences a sharp increase of performance measured by EBITDA on Sales

Table 5 shows a strong increase of the Net financial position in 2006, two years following the acquisition. This result is caused by Granarolo's Total debt that increased mainly as a consequence of short-term bank debts incurred because of the deal. Effects had repercussions on financial burdens as stated in the 2006 Annual report: "[...] the increase in borrowing costs comes by the net debt of the Group, following the acquisition of the companies belonging to the former group Yomo. The average debt of 2006 was 30% higher compared to the same period last year".

Total Assets for Granarolo report a sharp increase during the year of the acquisition, clearly as a consequence of the takeover of Yomo. During the year following the acquisition, we notice a continuous increase of Total Assets, from 678 million Euro to 710 million Euro.

As shown in Table 7, Equity increases if compared to industry benchmark every year since the accomplishment of the acquisition until year 3. This trend is explained by the increase in shareholder equity and treasury shares that are eventually emptied in year 3. Equity is also influenced by the payment of 71.5 million Euro, made in October 2006 by Banca Intesa as a capital increase of Granarolo SpA reaching almost 20% of total capital shares. Banca Intesa's new entry in the Shareholder's Equity was made in support of an acquisition operation that, as stated by Granarolo's holding, was realized to be "more challenging than expected".

Return on Sales growth, as we can see from Table 5 show diminishing results since year -2 that are recovered only three years after the takeover. The same measure is the opposite for the target company that presents significant negative performance before the acquisition and strongly positive after that. On an industry-adjusted base, we notice negative ROS performance in year 1 and 2 written off in the third year. As far as we can observe for the target, the negative adjusted performance in year 0 is replaced by a paired result three years after the acquisition was completed.

A similar trajectory is observed with Return on Investments for Granarolo, which experienced a strong improvement only in the third year after the acquisition of Yomo in contrast with an overall decreasing performance. The same is observed for the target company.

Start-up and expansion costs are sustained by the acquirer on a continuous base but they are halved in the period following the acquisition. No Start-up and expansion costs are reported for the target company.

#### **4.2.4 Conclusions**

Our analysis shows several proves of under performance for the acquirer company, Granarolo, both in absolute terms and on a industry adjusted basis, except for continuous improvement on Sales that settled overall on the industry average. On the other hand the target company, Yomo, experienced a strong recover from a period of decreasing results, from the point of declaring bankruptcy to gaining superior growth of performance compared to its industry benchmark.

The acquisition benefits will probably show their effects outside the time window we are considering in our sample and include the savings of future investments by reutilizing Yomo's plants also for other products, synergies related to the production of milk and yogurt between the two companies and a more overall efficient organization. On the other hand, the acquisition process revealed to be quite complex on a financial perspective, expensive, in plain words, "more challenging then expected".

These conclusions were based on different operative and financial performance measures confirming an outcome common to many acquisitions: the gain in performance for the target company at the expense of the acquirer, identified by a reduction in superior pre-acquisition results for the bidder company and an opposite trend undertaken by the target company since the takeover is accomplished.

#### **4.3 Fintyre**

Our last case study would be a particular project, denominat ed Fintyre. The deal we are referring to in our sample is Fintyre-All Pneus, a transaction that gave birth to an absolute incumbent in the pneumatic industry at the national level. Since the deal



is part of a longer process including several M&A transactions, we would like to present this case as a success of a serial acquirer strategy. It is in fact intended to be an example of the good opportunities that may rise even for small and medium enterprises, despite the macro economical turbulences we are facing nowadays.

Given these premises, the paragraph will not follow the structure of the previous ones, due to the specific nature of the group we are presenting: therefore, the topic will be addressed in five sections: the first one concerning the history and characteristics of the acquirer, the second one dealing mainly with the aspects of the programme, the fourth one presenting the features of the group and its competitive positioning today and the last one reporting the results of the group as a whole.

### **4.3.1 History**

The group was founded by the Carmignani family in 1936, under the name of “Pneuservice”, with the opening of a pneumatics retail shop in the centre of Empoli. Through a series of acquisitions of many small operators, first in Tuscany and then in the Central and Northern Italy, the company experienced 40 years of continuous growth and also shifted its attention towards the wholesale market. In the 1970s, the group reached an international dimension, thanks to its increasing market shares and the strengthening of its brand abroad; the company then began also an import/export commerce. An important milestone in its history is placed in 1990, when, due to the long experience in the retail business, it opened the first franchising chain of car tires in Italy. In 1996, then, it acquired Gard Gomme S.p.A to penetrate the Northern Italy market and in 2003 a new company was born to improve the performance in the agro-industrial vehicles sector.

In the early 2000s the company had strengthened its position in the national context, well integrated upwards and downwards in the value chain, ensuring to its customers a wide range of products and covering almost the entire region thanks to

its logistic and distribution channels. On the other hand, the company was still too small to compete with the incumbent firms in the European market, had relatively scarce bargaining power when negotiating with suppliers and had insufficient liquidity to finance new projects.

At the moment of the takeover, therefore, the strategy was to create a national pole for the wholesale distribution, while looking for potential partnerships with financial actors to guarantee a sufficient stability in the intergenerational step. Many opportunities were rising from the national context, because of the high fragmentation and the exclusive presence of small and medium enterprises.

Being the industry very capital-intensive and having very few potential substitute products, the group could then boast a significant competitive advantage with respect to the competitors; moreover, a competent management and the increased market shares allowed the experts to think of a sustainable growth in the following years.

### **4.3.2 The plan**

The group turned into Fintyre over quite a long process started in 2006, with the support of the advisor Deloitte Financial Services when the Carmignani brothers opened to new investors to achieve the desired aggregation on a full scale.

After an initial phase, where many private equity funds demonstrated interest towards the idea, in 2007, Sofipa took the leadership of the investing group and acquired through a LBO (Leveraged Buy-Out) 80% of the capital of Pneuservice, for a deal value of 32 million Euro (the remaining 20%, is still under the control of the Carmignani family).

At that point, many other family-owned businesses decided to participate to the programme and joined the group. At first, in 2008, Saioni and Quercetti (with revenues amounting to more than 60 million Euro in Lazio) were aggregated; then at the end of the same year Fintyre acquired Pneumatici F.Giordano in Campania, (summing up revenues for around 20 million Euro), in all these operations the Deloitte group worked as the sell-side advisor.

As of 2008, the group was the first Italian player, as far as revenues were concerned, (more than 150 million Euro), owning a widespread distribution channel, while its management was joined by new experts and entrepreneurs of the industry.

In the earliest days of 2009, the aggregation process came to an end, with the final takeover of All Pneus, for an amount of 110 million Euro; being the target the first follower in the market, the transaction led to the creation of a dominating player in the industry at the national level and a significant competitor at an Europe scale.

The All Pneus group was founded in 1977 by Alfredo Pezzotta and Marino Bresciani, the group showed a consistent growth over the years, due to external and internal expansions, which eventually resulted in the first operator in Northern Italy, having more than 500 stores and reporting sales for more than 1 million units. The idea of choosing All Pneus as a target was not surprising, given the complementary nature of the two actors, so to maximize the penetration of the market and give an improved service to the customer. Besides, the economies of scale coming from the birth of the pole were not only enormous but also desirable for a group longing to compete on a bigger scale.

Coming to the deal itself, the operation was conducted through the spin-off of the real estate segment of All-Pneus and the subsequent selling of the operational division to Fintyre.

The workload for the advisor and the companies was overwhelming, because Fintyre had to acquire 5 firms belonging to the target group. The purchase was

partially financed by Orobica Finance (controlling company of the former All Pneus group), which was positively impressed by the operational plan of the acquirer and wanted to invest on it. Moreover a private fund, BlueGem Capital Partners, entered the group, acquiring a relevant share of the capital stock, as we will see in the next section.

### **4.3.3 Follow-up**

Following the operation with AllPneus the group had completed its project and was then able to cover the entire Italian geographical area with 14 warehouses and an impressive number of stores. One year later, in 2010, the group reported more than 275 million euro of revenues, three times more than the first follower in its industry.

The company is now jointly controlled by the Sofipa fund (39% ca. of the controlling votes) and BlueGem (33% ca.), and shows relatively considerable participations for all the entrepreneurs of the companies purchased during the expansion (Saioni, Giordano, etc.). The first period, as stated by the sales manager of the company, Mr Bruchi, was rather difficult, due to the different interpretations and ideas of the entrepreneurs that participated the project, each of whom, with the desire of giving a personal contribution to the overall strategies.

The group presents the ideal modern distributive model, having relations both with the supplier side and the customer side, through consolidated commercial partnerships and running marketing campaigns not only to the mass public, but also personalized to its primary customers.

As of 2011, the group reported revenues for 300 million Euro ca. and more than 4 million sold units, with a positive outlook for the future, since the Italian market has

not yet overcome its fragmentation and the group is affirming its brand abroad, too.

Moreover, the company is still looking for new potential acquisitions for the future, especially in the Southern regions, despite the economical crises that is affecting Italy and its manufacturing industries.

### **4.3.3 Operational Results**

The data coming from our pool regarding Fintyre, report a continuous increase of the revenues starting from the year of the deal. As we can see from Table 9, in 2009 the volumes of the company nearly doubled thanks to the purchase of its first competitor in the market and then the upsurge continued all over the subsequent years, up to the already mentioned figures of 2011.

A similar trend is shown in comparison to the benchmark, as we can notice in Table 10, with impressive increases, especially if we consider the dimensions of the subject.

The EBITDA of the group has always kept positive and continuously increasing, even if at a lower rate with respect to the industry. Moreover its margin over the total revenue kept steady over 7%, with a small flection in the year of the takeover, when the value dropped at 6.33%.

Good news for the group comes also from the analysis of the Net Profit, which was slightly negative in the years before the acquisition process and then rose gradually to the 2011 amount of 4 million euro approximately.

The same can be said, even with more emphasis, for the FCFF (Free Cash Flow to Firm), which improved from the slightly loss of 2007 to a more than satisfying 15

million euro in 2011.

The investors must have appreciated as well the progress made on the Return on Sales and Return on Investment, which gradually shifted from the initial 1.81 and 3.29 to the current 3.92 and 8.47.

Lastly, an analysis can be made on the cost side, by observing the values of the Capex and the number of employees. In both cases, we can notice a decrease in the figures that may be interpreted as follows: in the case of Capex, the company may be saving cash because of potential new plans of external growth and is therefore not investing too much on renewing its plants, thanks to the relatively safe positioning it has on the market; on the workforce side, instead, we would say that the synergies achieved through the M&A process, are allowing the company to slowly decrease the necessary amount of employees for its routine tasks.

## Chapter 5

### 5. CONCLUSIONS

We would like to conclude this paper by summing up some of the findings coming from our analysis, in order to give useful pieces of advice for all those who have some interest in the M&A activity.

As we exhaustively discussed, the Italian market shows specific features, among which we find: the relevant presence of small-sized firms and family-owned businesses, the relative novelty of a market for corporate control and the ongoing processes of liberalisations and privatisations, which are completely reshaping crucial sectors of the national economy. Given these premises, we would be careful to generalise the results of our study, because they can be affected by the abovementioned local peculiarities.

These features are reflected in the study sample, in which the majority of the deals are made between companies operating in the same business and only a small portion (19%) is made of conglomerate transactions. In particular the most active sectors seem to be the less traditional ones, such as ICT and Business Services, or even Agribusiness, which is experiencing a new wave of entrepreneurship.

As far as the Italian context is concerned, we would say that M&A does not create value, especially with respect to the acquiring company. In fact, the acquirers, despite pre-acquisition virtuous performance, seem to lose value after the deal is completed. In particular we observed a decrease in the following performance measures: Revenues, Operational Cash Flows, EBITDA and EBITDA/Sales. Therefore, value seems to be destroyed not only in absolute values, but also with

respect to the margins.

However, contrasting results come from the analysis of the target.

The acquired company indeed seems to obtain some sort of operational benefits in the short term, with positive peaks around year 1 or 2 for most of the performance measures. But in the long run, this performance decreases, thus following the acquirer trend.

Regarding the costs, we observe relevant amount of expenses in advertising and R&D after the deal, coming from the bidder side. It actually looks like the acquiring company is the one that invests the most to exploit the potential synergies resulting from the takeover, whereas targets seem to lower their efforts and rely on the actions of their partners.

The same situation is observed with respect to the costs of start-up and expansion. Some sort of economies of scale are recognizable if we look at the trends regarding the number of employees, this value, on average, decreases over time starting from the year of the deal.

The regressions let us notice some significant correlations between the value creation of the acquisition (in terms of profitability) and the considered predictors. Firstly, we observed a positive impact of the deal size on the value creation, which lets us think that the larger the investment, the more thoughtful the choices and the higher the effort to achieve the expected goals

Secondly, the acquirer's debt has a positive impact on the value creation. We attributed this outcome to the high number of successful LBOs we observed in our sample. In fact it seems that the companies that borrow the financial resources to complete the acquisition are the ones which make the best decisions or, alternatively the ones who perform the best at the implementation stage. At the same time, cash-rich firms seem to be the worst performers, thus corroborating the



“Free Cash Flow” theory of suboptimal decisions.

The opposite impacts are witnessed on the target side. In fact the acquirer achieves the highest value creation when it acquires companies with low debt and high cash flows. This would seem straightforward, since the bidder can benefit from the positive financial situation of the acquired company, which eventually lowers the overall cost of capital and allows for new investments.

We would also suggest further directions of research, starting with the selection of the benchmark. Up to date, literature has always remarked the importance of comparing a company performance to its industry benchmark, what would be interesting, though, is to create sets of firms, which are comparable in terms of scale. In fact, measuring growth performances could be misleading, because of the difficulties of the largest corporate to increase their size, whereas a small and agile firm is more able to increase its dimension.

Finally, new predictors, which were not available in our sample, can be included in the analysis. A possible variable of interest would be the change of management after the takeover. This variable could help us understanding whether value creation can be obtained through a restructuring of the target company, which would corroborate the idea of a market for corporate control in order to reach both static and dynamic efficiency.

## References

- Agrawal, A., Jaffe, J. F., Mandelker, G., (1992), The Post-Merger Performance of Acquiring Firms: A Re-examination of an Anomaly. *Journal of Finance* 47: 1605-1621.
- Amato, P., (2010), *Le Responsabilità del Prospetto Informativo*, Magistra Banca e Finanza
- Amel-Zadeh, Amir, (2009), Operating Performance Improvements after Corporate Takeovers: Fact or Fallacy?
- Ball, R., (1972), Changes in Accounting Techniques and Stock Prices. *Journal of Accounting Research* 10, *Empirical Research in Accounting: Selected Studies* 1972: 1-38.
- Barber, B.M., Lyon, J.D., (1996), Detecting abnormal operating performance: The empirical power and specification of test statistics. *Journal of Financial Economics* 41: 359-399.
- Beamish, P. W., Lupton, N. C., (2009) Managing joint ventures, *Academy of Management Perspectives*, 23(2), 75-94.
- Bertoncelj, (2009), Value creation chain in mergers and acquisitions, *Studia Universitatis Babeş Bolyai - Oeconomica* (1/2009)
- Bianco, M., (2003), *L'Industria Italiana: numeri, peculiarità, le politiche della nostra economia industriale*, Edizioni Mulino
- Boricki, M., (2010), Hostile takeover (hostile merger) defence strategies, 2010. *Corporate Restructuring, Finance, MBA*
- Cheng, L., Leung, T.Y., (2004), A comparative analysis of the market-based and accounting-based performance of diversifying and non-diversifying acquisitions in Hong Kong. *International Business Review* 13: 763-789.
- Colombo, M.G.(2003), Alliance form: a test of the contractual and competence perspectives, *Strategic Management Journal*, 2003, 24, 1209-1229
- Cornett, M., Tehranian, H., (1992), Changes in corporate performance associated with bank acquisitions, *Journal of Financial Economics* 31: 211-234.

- Cosh, A., Hughes, A., Singh, A., (1980), The Causes and Effect of Takeovers in the United Kingdom: An Empirical Investigation for the Late 1960s at the Microeconomic Level: 227-270.
- Daley, L., Mehrotra, V., Sivakumar, R., (1997), Corporate focus and value creation: Evidence from spin-offs, *Journal of Financial Economics* 45, 257-281.
- Desbrières, P., Schatt, A., (2002), The Impacts of LBOs on the Performance of Acquired Firms: The French Case. *Journal of Business Finance and Accounting* 29: 695-729.
- Devos, E., Kadapakkam, P.R., Krishnamurthy, S., (2008), How Do Mergers Create Value? A Comparison of Taxes, Market Power, and Efficiency Improvements as Explanations for Synergies. *The Review of Financial Studies* / v 22 n 3 2009
- Diaz B. D., Olalla, M. G., Azofra, S.S (2004) Bank acquisitions and performance: evidence from a panel of European credit entities. *Journal of Economics and Business* 56: 377-404.
- Dickerson, A., Gibson, H., Tsakalotos, E., (2000), Internal vs. External Financing of Acquisitions: Do Managers Squander Retained Profits?, *Oxford Bulletin of Economics and Statistics* 62: 424-431.
- Fama, E.F., (1970), Efficient Capital Markets: A Review of Theory and Empirical Work, *Journal of Finance* 25: 383-417.
- Fama, E.F., French, K.R., (2000), Forecasting profitability and earnings. *Journal of Business* 73: 161-176.
- Gaughan, Patrick A., (2007), *Mergers, Acquisitions, and Corporate Restructurings* (4th edition). New York: Wiley and Sons.
- Ghosh, A., (2001), Does Corporate Performance Really Improve Following Corporate Acquisitions? *Journal of Corporate Finance* 7: 151-187.
- Giacomelli, S., Trento, S., (2004), Proprietá, controllo e trasferimenti nelle imprese italiane. Cosa è cambiato nel decennio 1993-2003?, *Banca d'Italia Servizio Studi*
- Giudici, G., (2010), *Finanziare le risorse dell' impresa*, Edizioni CLUP-Maggioli, 4th edition
- Gleason, K. C, Rosenthal L., Wiggins R. A., (2005), Backing into being public: an exploratory analysis of reverse takeovers, *Journal of Corporate Finance*, 12: 54-79.
- Habeck, M., Kröger, F., and Träm, M., (2000), *After the merger: seven strategies for successful post-merger integration*. Harlow: Person Education Ltd.

Hart, O., Moore J., (1990), Property rights and the nature of the firm, *The Journal of Political Economy*, 98(6), 1119-1158

Harford, J. 1999. Corporate cash reserves and acquisitions. *Journal of Finance* 54: 1969–1997.

Healy, P., Palepu, K., Ruback, R., (1992), Does corporate performance improve after mergers?, *Journal of Financial Economics* 31, 135-176.

Herman, E., Lowenstein, L., (1988), The efficiency effects of hostile takeovers. In: *Knights, raiders and targets: The impact of the hostile takeover*, eds. John Coffee Jr., Louis Lowenstein, and Susan Rose-Ackerman, Oxford University Press, New York, NY.

Hitt, Michael A., (2001), *Mergers and Acquisitions: A Guide to Creating Value for Stakeholders*. Oxford University Press, Incorporated.

John, K. Ofek, E., (1995), Asset sales and increase in focus, *Journal of Financial Economics* 37, 105-126.

Ivencevich, J.M., Schweiger, D.M., Power, F.R., (1987), Strategies for managing human resources during mergers and acquisitions, *Human Resource Planning*, 10 (1) :19-35

Jensen, M.C., (1986), Agency costs of free cash flow, corporate finance, and takeovers, *The American Economic Review*, 76(2), 323–329

Kaplan, S., Weisbach, M. (1992), The success of acquisitions: Evidence from divestitures, *Journal of Finance* 47, 107-138.

Knapp, M., Gart, A., Becher, D. (2005), Post-merger Performance of Bank Holding Companies, 1987-1998. *The Financial Review* 40: 549-574.

KPMG, (2011), *The seventh wave of M&A*

KPMG Corporate Finance, (2010), *Le principali dinamiche del mercato M&A negli ultimi vent'anni*

KPMG Corporate Finance, (2012), *M&A in Italia nel 1° semestre 2012*

Kruse, T.A., Park, H.Y., Park, K., Suzuki K., (2003), Long-term Performance Following Mergers of Japanese Companies: The Effect of Diversification and Affiliation', presented at American Finance Association meetings in Washington DC.

Kumar, M.S., (1984), *Growth, Acquisition and Investment*, Cambridge: University Press.

Lang, L., Stulz, R., Walkling, R. (1989), Managerial performance, Tobin's Q, and the gains from successful tender offers, *Journal of Financial Economics* 24, 137-154.

Linn S.C., Switzer, J.A., (2001), Are cash acquisitions associated with better postcombination operating performance than stock acquisitions?, *Journal of Banking and Finance*, 25: 1113-1138.

Loughran, T., Vijh, A., (1997) Do Long-Term Shareholders Benefit from Corporate Acquisitions?, *Journal of Finance* 52: 1765-1790.

Macchiati, A., (1996), *Privatizzazioni tra economia e politica*, Donzelli Editore

Manson, S., Powell, R., Stark, A., Thomas, H. (2000), Identifying the sources of gains from takeovers, *Accounting Forum* 24: 1–25.

Mantravadi, P., Vidyadhar, R.A., (2008), Type of Merger and Impact on Operating Performance: The Indian Experience, *Economic & Political Weekly Review of Industry and Management*

McGrath, M., (2011), *Practical M&A Execution and Integration*, Wiley Corporate F&A publications

Martin, K., (1996), The method of payment in corporate acquisitions, investment opportunities, and management ownership, *Journal of Finance* 51, 1226-1246.

Martin, K., McConnell, J. (1991), Corporate performance, corporate takeovers, and management turnover, *Journal of Finance* 46, 671-687.

Maslow, A., (1943), A theory of human motivation, *Psychological Review*, vol. 50, 1943, 370-96.

Meeks, G., (1977), *Disappointing Marriage: A Study of the Gains from Merger*. Cambridge: University Press.

Meeks, G., Meeks, J.G., (1981), Profitability Measures as Indicators of Post-Merger Efficiency”, *Journal of Industrial Economics* 24: 335-344.

Meggison W., Morgan A., Nail, L., (2004), The determinants of positive long-term performance in strategic mergers: Corporate focus and cash, *Journal of Banking and Finance* 28: 523-552.

Moeller, S.B., Schlingemann, F.P. (2005), Global diversification and bidder gains: A comparison between cross-border and domestic acquisitions, *Journal of Banking*

and Finance 29: 533-564.

Moeller, S.B., Schlingemann, F.P., Stulz, R.M., (2004), Firm Size and the Gains from Acquisitions, *Journal of Financial Economics*, Vol 73, pp 201-28

Montgomery, C. A., Thomas, A. R. (1988), Divestment: Motives and gains. *Strategic Management Journal*, 9: 93–97

Muller, D.C., (1980), The United States, 1962-1972: 271-198. In *The determinants and Effects of Mergers: An International Comparison*. Cambridge, Massachusetts: Oelshlager.

Myers, S. C., Majluf, N. S., (1984), Corporate financing and investment decisions when firms have information that investors do not have, *Journal of Financial Economics*, 13 (2), 187-221

Østergård, (2009), *Mergers & Acquisitions – Value Creation through the Realization of synergies*, Copenhagen Business School, Department of Economics.

Piller, F.T., Möslin, K. (2002), From economies of scale towards economies of customer interaction: value creation in mass customization based electronic commerce, 15<sup>th</sup> Bled Electronic Commerce Conference “eReality: constructing the eEconomy”, Bled, Slovenia, June 17-19, 2002

Powell R., Stark, A. (2005), Does Operating Performance Increase Post-Takeover for UK Takeovers? A Comparison of Performance Measures and Benchmarks. *Journal of Corporate Finance*, 11: 293-317.

Rahman, R.A., Limmack, R.J., (2004), Corporate Acquisitions and the Operating Performance of Malaysian Companies. *Journal of Business, Finance and Accounting* 31 (April/May): 359-400.

Ramasamy, K.P., Waagelein, J. (2003), Firm Financial Performance Following Mergers, *Review of Quantitative Finance and Accounting*, 20: 115-126.

Rappaport, A. (1998), Calculating the value-creating potential of a deal. *Mergers & Acquisitions, The Dealmaker's Journal*, 00260010, Jul/Aug98, Vol. 33 Issue 1.

Rau, P.R., Vermaelen, T., (1998), Glamour, Value and the Post-Acquisition Performance of Acquiring Firms, *Journal of Financial Economics*, 49: 223- 253.

Ravenscraft, D.J., Scherer, F.M. (1987), *Mergers, Sell-Offs, & Economic Efficiency*. Washington: Brookings Institute.

Steger U., Kummer C., (2007), *Why Merger and Acquisition (M&A) waves reoccur – the vicious circle from pressure to failure*, IMD International, Lausanne, Switzerland

Switzer, J. A., (1996), Evidence on real gains in corporate acquisitions. *Journal of Economics and Business*, 48: 443–460.

Yen, T.Y., Andre, P., (2007), Ownership structure and operating performance of acquiring firms: The case of English-origin countries, *Journal of Economics and Business*, 59: 380-405.

**Table 1: Sample distribution by effective date and acquisition typology**

Panel A: Number of acquisitions between 2004 and 2009

<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>Total</b>
76	98	114	122	124	62	596
13%	16%	19%	20%	21%	10%	100%

Panel A: Acquisition typologies

	<b>Vertical</b>	<b>Horizontal</b>		<b>Total</b>	<b>% of Total</b>
<b>Business related</b>	269	213		482	81%
<b>Diversificated</b>			114	114	19%
<b>Total</b>	269	213	114	596	



**Table 2: Sample distribution by Industry classification**

Panel A: Acquirers description

<b>Sectors</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>Total</b>	<b>% of Total</b>
Agribusiness	13	18	15	5	7	4	62	10.4%
Constructions	5	11	16	13	9	7	62	10.4%
Aerospace	2	4	0	2	2	2	11	1.8%
ICT	7	7	7	16	7	7	53	8.8%
Mechanical Industry	5	5	7	0	15	4	36	6.1%
Media	11	7	13	9	9	2	51	8.5%
Health	2	4	9	15	11	9	49	8.2%
Home	2	4	0	4	5	4	18	3.0%
Textile	2	5	18	9	9	2	45	7.6%
Tourism, art, entertainment	4	5	2	13	5	2	31	5.2%
Energy	2	7	2	5	7	4	27	4.6%
Chemicals	2	2	0	4	2	2	11	1.8%
Metallurgy	2	2	2	4	7	0	16	2.7%
Automotive	2	2	4	7	9	2	25	4.3%
Logistics	4	4	7	4	4	0	22	3.7%
Packaging	2	0	4	2	2	2	11	1.8%
Business services	11	11	9	11	13	11	65	11.0%
<b>Total</b>	<b>76</b>	<b>98</b>	<b>114</b>	<b>122</b>	<b>124</b>	<b>62</b>	<b>596</b>	<b>100%</b>

Panel B: Targets description

<b>Sectors</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>Total</b>	<b>% of Total</b>
Agribusiness	13	16	15	7	9	4	64	10.7%
Constructions	4	9	15	5	5	4	42	7.0%
Aerospace	2	2	0	2	2	2	9	1.5%
ICT	7	9	9	20	11	9	65	11.0%
Mechanical Industry	5	5	7	0	13	7	38	6.4%
Media	11	7	11	9	9	0	47	7.9%
Health	2	7	7	18	11	7	53	8.8%
Home	2	4	0	4	5	5	20	3.4%
Textile	4	5	22	9	11	2	53	8.8%
Tourism, art, entertainment	5	7	4	13	7	2	38	6.4%
Energy	2	9	4	5	9	5	35	5.8%
Chemicals	2	0	2	4	0	4	11	1.8%
Metallurgy	2	0	2	4	9	0	16	2.7%
Automotive	2	4	4	5	7	2	24	4.0%
Logistics	2	2	5	4	4	2	18	3.0%
Packaging	2	0	4	2	2	0	9	1.5%
Business services	11	11	5	11	9	5	53	8.8%
Education	0	0	0	0	0	2	2	0.3%
<b>Total</b>	<b>76</b>	<b>98</b>	<b>114</b>	<b>122</b>	<b>124</b>	<b>62</b>	<b>596</b>	<b>100%</b>

**Table 3: Sample cross distribution of target and acquirer's sectors**

Acquirer's sector/Target's sector	Agribusiness	Constructions	Aerospace	ICT	Mechanical Industry	Media	Health	Home	Textile	Tourism, art, entertainment	Energy	Chemicals	Metallurgy	Automotive	Logistics	Packaging	Business services	Education	Total
Agribusiness	56						2		2								2		62
Constructions		33		4	5		4	2	2	5	4				2		2		62
Aerospace			9														2		11
ICT		2		51	0														53
Mechanical Industry					27		2	2	2			4							36
Media				7		42						2							51
Health						2	45										2		49
Home								15				2	2						18
Textile	2								42								2		45
Tourism, art, entertainment	2									29									31
Energy		2									25								27
Chemicals		2							2			7							11
Metallurgy	2				2					2			9	2					16
Automotive									2				2	22					25
Logistics		2		2						2					16				22
Packaging								2								9			11
Business services	2	2		2	4	4	0		2		5						44	2	65
<b>Total</b>	<b>64</b>	<b>42</b>	<b>9</b>	<b>65</b>	<b>38</b>	<b>47</b>	<b>53</b>	<b>20</b>	<b>53</b>	<b>38</b>	<b>35</b>	<b>11</b>	<b>16</b>	<b>24</b>	<b>18</b>	<b>9</b>	<b>53</b>	<b>2</b>	<b>596</b>

**Table 4: Sample distribution by Value of transactions (million Euro)**

<b>Sector</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>Total</b>
Agribusiness	260	318	242	50	221	30	1121
Constructions	244	272	723	228	105	148	1720
Aerospace	1608	1041		413	15	59	3136
ICT	251	908	49	3682	102	70	5062
Mechanical Industry	59	61	147		150	19	436
Media	190	403	205	288	286	11	1383
Health	400	85	125	175	85	117	987
Home	7	197		20	60	55	339
Textile	48	162	241	530	162	5	1148
Tourism, art, entertainment	27	462	30	363	35	5	922
Energy	130	213	20	61	86	24	534
Chemicals	5	180		77	8	10	280
Metallurgy	801	17	35	242	69		1164
Automotive	10	34	908	149	159	60	1320
Logistics	45	346	135	1255	345	2588	4714
Packaging	6		54	6	30	6	102
Business services	86	143	86	128	198	295	936
<b>Total</b>	<b>4177</b>	<b>4842</b>	<b>3000</b>	<b>7667</b>	<b>2116</b>	<b>3502</b>	<b>25304</b>

**Table 5: Acquirer’s mean and median Industry adjusted Revenues from Sales**

Panel A: Acquirer pre- and post-acquisition performance

Year relative to acquisition	-3	-2	-1	0	+1	+2	+3
Mean	15%	25%	20%	23%	21%	6%	0%
1° quartile	-8%	0%	-5%	-1%	-2%	-11%	-13%
Median	10%	20%	13%	17%	13%	5%	3%
3° quartile	35%	48%	35%	46%	38%	23%	20%

	Pre-acquisition	Post-acquisition
-3/+3 Mean	20%	9%
-3/+3 Median	13%	5%

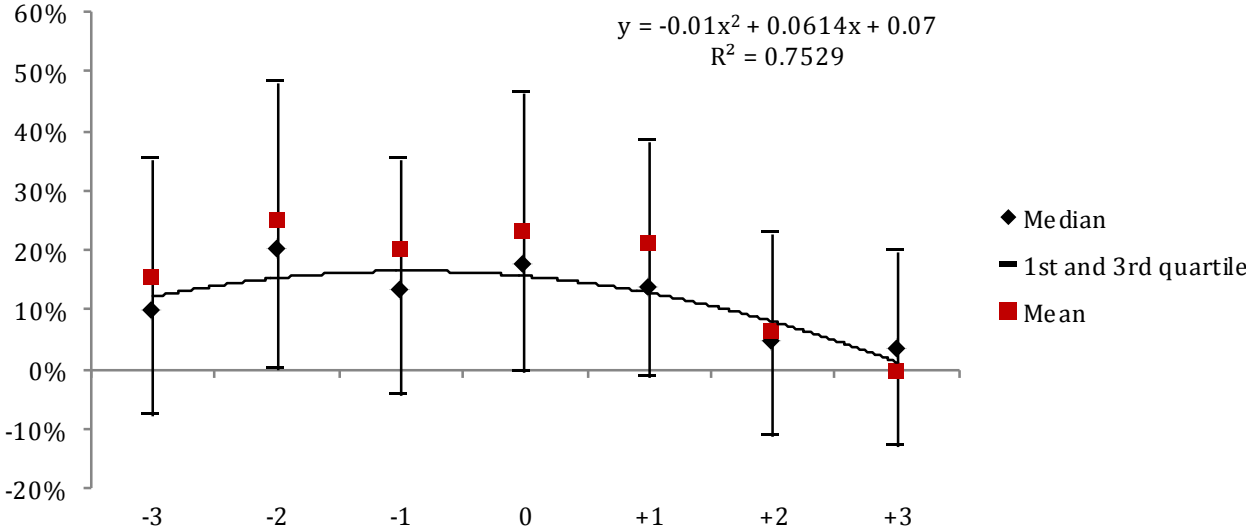
Panel B: Regression results

$$\text{Revenues from Sales} = 0.199 - 0.107 t$$

$$(10.69) \quad (-4.312)$$

$$R^2 = 0.02, \text{Fstat} = 18.59$$

**Chart 1: Acquirer’s mean and median Industry adjusted Revenues from Sales**



**Table 6: Target’s mean and median Industry adjusted Revenues from Sales**

Panel A: Target pre- and post-acquisition performance

Year relative to acquisition	-3	-2	-1	0	+1	+2	+3
Mean	18%	15%	8%	5%	9%	4%	1%
1° quartile	-8%	-4%	-10%	-14%	-16%	-15%	-16%
Median	9%	12%	6%	4%	5%	2%	-1%
3° quartile	36%	37%	27%	26%	30%	21%	20%

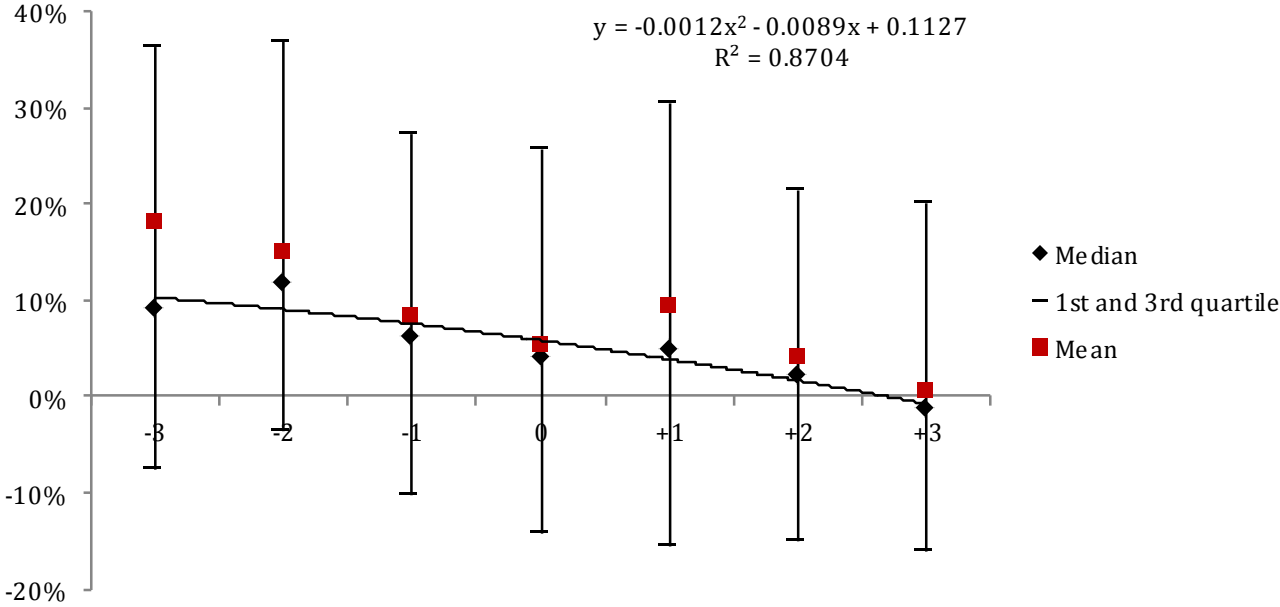
  

	Pre-acquisition	Post-acquisition
-3/+3 Mean	14%	5%
-3/+3 Median	9%	2%

Panel B: Regression results

$\text{Revenues from Sales} = 0.122 - 0.091 t$ <p>(5.873) (-3.186)</p>	$R^2 = 0.014, F\text{stat} = 10.152$
--	--------------------------------------

**Chart 2: Target’s mean and median Industry adjusted Revenues from Sales**



**Table 7: Acquirer's mean and median Industry adjusted EBITDA**

Panel A: Acquirer pre- and post-acquisition performance

Year relative to acquisition	-3	-2	-1	0	+1	+2	+3
Mean	10%	18%	11%	19%	12%	1%	-3%
1° quartile	-21%	-9%	-18%	-17%	-28%	-35%	-43%
Median	9%	14%	13%	17%	9%	6%	0%
3° quartile	37%	50%	47%	63%	47%	41%	40%

	Pre-acquisition	Post-acquisition
-3/+3 Mean	13%	3%
-3/+3 Median	13%	6%

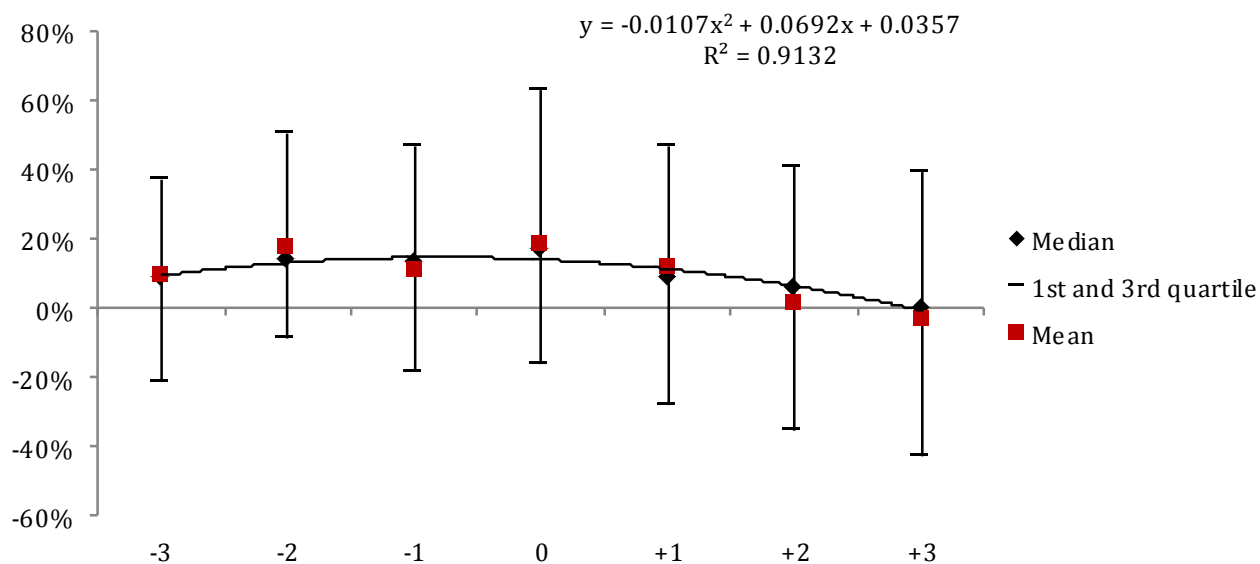
Panel B: Regression results

$$EBITDA = 0.125 - 0.094 t$$

(3.798) (-2.176)

$$R^2=0.005, Fstat=4.733$$

**Chart 3: Acquirer's mean and median Industry adjusted EBITDA**



**Table 8: Target's mean and median Industry adjusted EBITDA**

Panel A: Target pre- and post-acquisition performance

Year relative to acquisition	-3	-2	-1	0	+1	+2	+3
Mean	17%	16%	6%	-3%	18%	1%	3%
1° quartile	-28%	-13%	-27%	-35%	-27%	-40%	-48%
Median	-273%	-214%	-356%	-484%	-375%	-462%	-245%
3° quartile	13%	12%	6%	0%	9%	2%	1%

	Pre-acquisition	Post-acquisition
-3/+3 Mean	13%	7%
-3/+3 Median	12%	2%

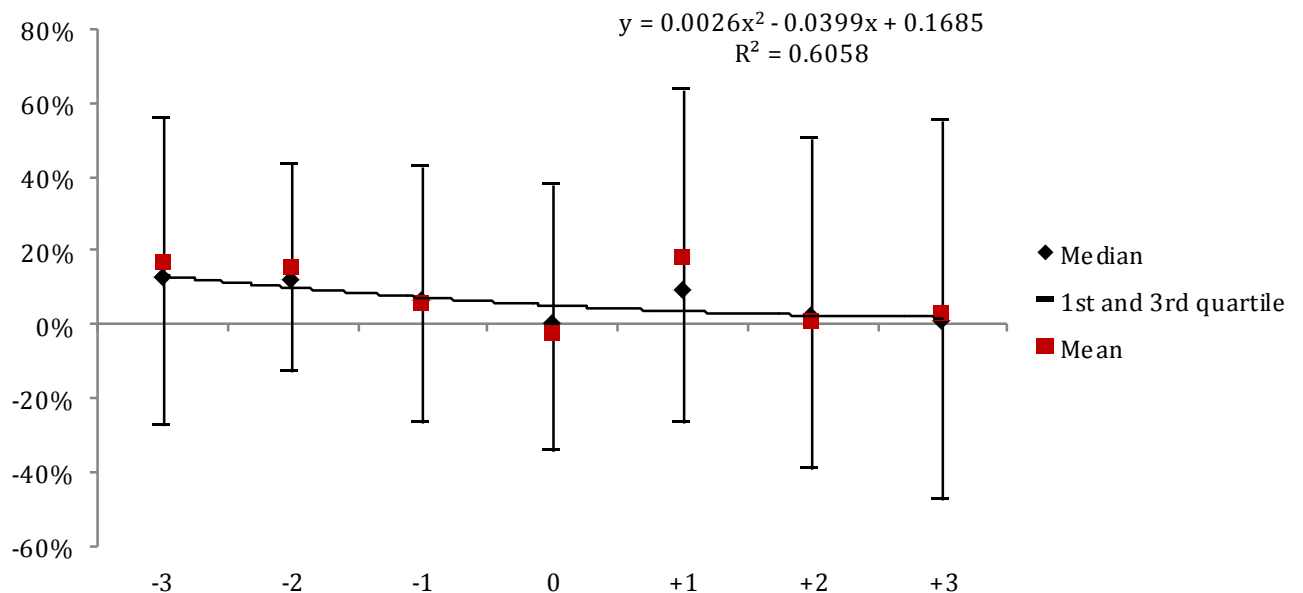
Panel B: Regression results

$$EBITDA = 0.086 - 0.016 t$$

(2.177) (-0.306)

$$R^2=0.0001, Fstat=0.093$$

**Chart 4: Target's mean and median Industry adjusted EBITDA**





**Table 9: Acquirer’s mean and median Industry adjusted EBITDA/Sales**

Panel A: Acquirer pre- and post-acquisition performance

Year relative to acquisition	-3	-2	-1	0	+1	+2	+3
Mean	0%	17%	11%	19%	21%	18%	-5%
1° quartile	-23%	-18%	-23%	-23%	-29%	-31%	-60%
Median	0%	4%	3%	14%	15%	3%	4%
3° quartile	20%	40%	47%	62%	79%	75%	59%

	Pre-acquisition	Post-acquisition
-3/+3 Mean	9%	11%
-3/+3 Median	3%	4%

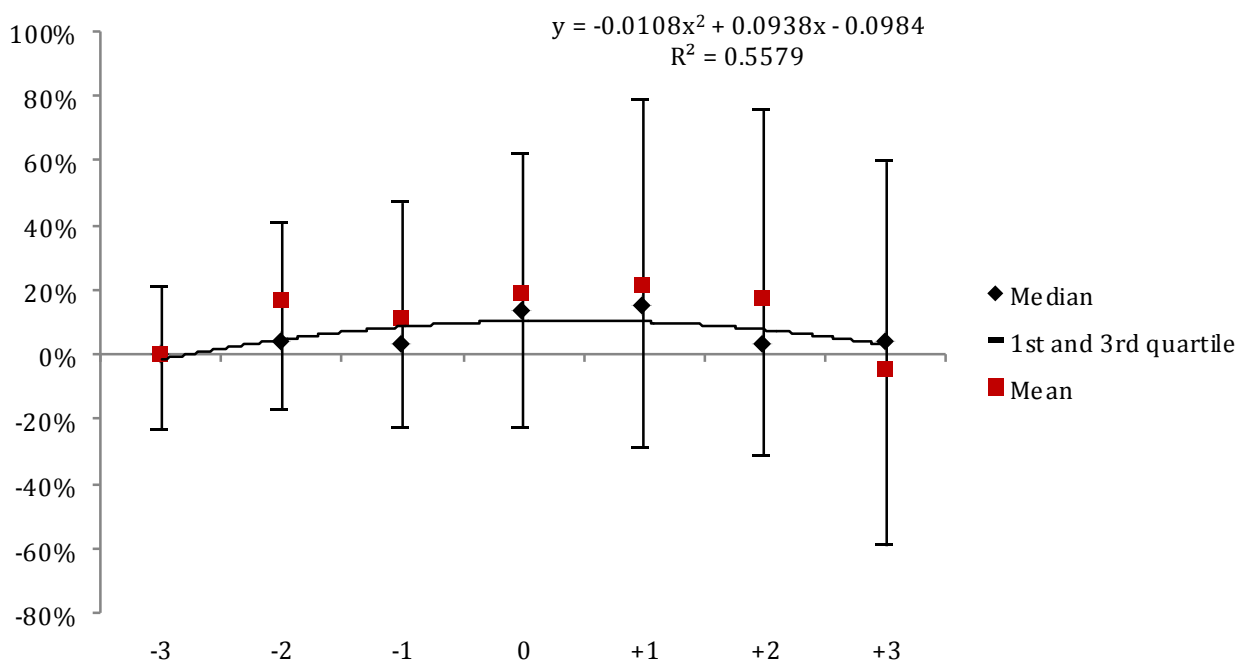
Panel B: Regression results

$$\text{EBITDA/Sales} = 0.107 - 0.028 t$$

(2.899) (-0.564)

$$R^2 < 0.00, \text{Fstat} = 0.318$$

**Chart 5: Acquirer’s mean and median Industry adjusted EBITDA/Sales**



**Table 10: Target’s mean and median Industry adjusted EBITDA/Sales**

Panel A: Target pre- and post-acquisition performance

Year relative to acquisition	-3	-2	-1	0	+1	+2	+3
Mean	7%	12%	14%	16%	35%	15%	15%
1° quartile	-20%	-14%	-22%	-33%	-19%	-42%	-46%
Median	5%	8%	2%	8%	18%	8%	11%
3° quartile	31%	36%	49%	60%	91%	70%	78%

	Pre-acquisition	Post-acquisition
-3/+3 Mean	11%	22%
-3/+3 Median	5%	11%

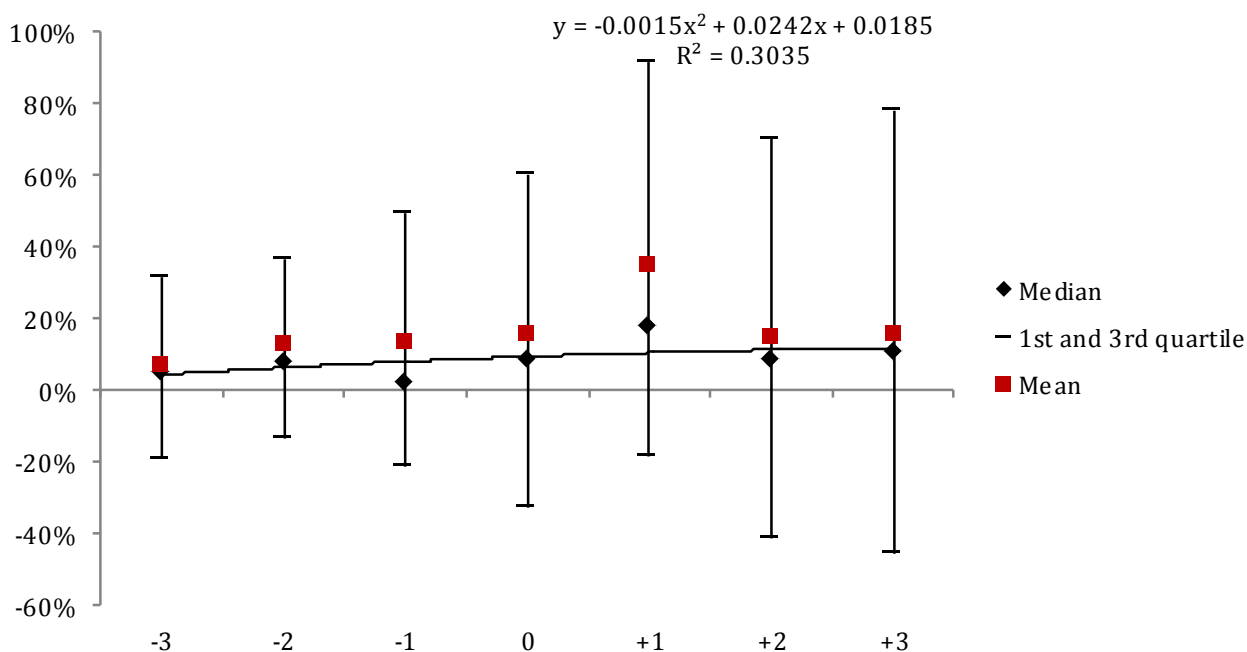
Panel B: Regression results

$$\text{EBITDA/Sales} = 0.099 + 0.066 t$$

(2.235) (1.080)

$$R^2=0.002, \text{ Fstat}=1.166$$

**Chart 6: Target’s mean and median Industry adjusted EBITDA/Sales**



**Table 11: Acquirer’s mean and median Industry adjusted Net Financial Position**

Panel A: Acquirer pre- and post-acquisition performance

Year relative to acquisition	-3	-2	-1	0	+1	+2	+3
Mean	5%	11%	11%	27%	22%	2%	9%
1° quartile	-49%	-51%	-35%	-27%	-16%	-24%	-20%
Median	6%	12%	14%	21%	17%	0%	9%
3° quartile	53%	63%	62%	74%	56%	31%	38%

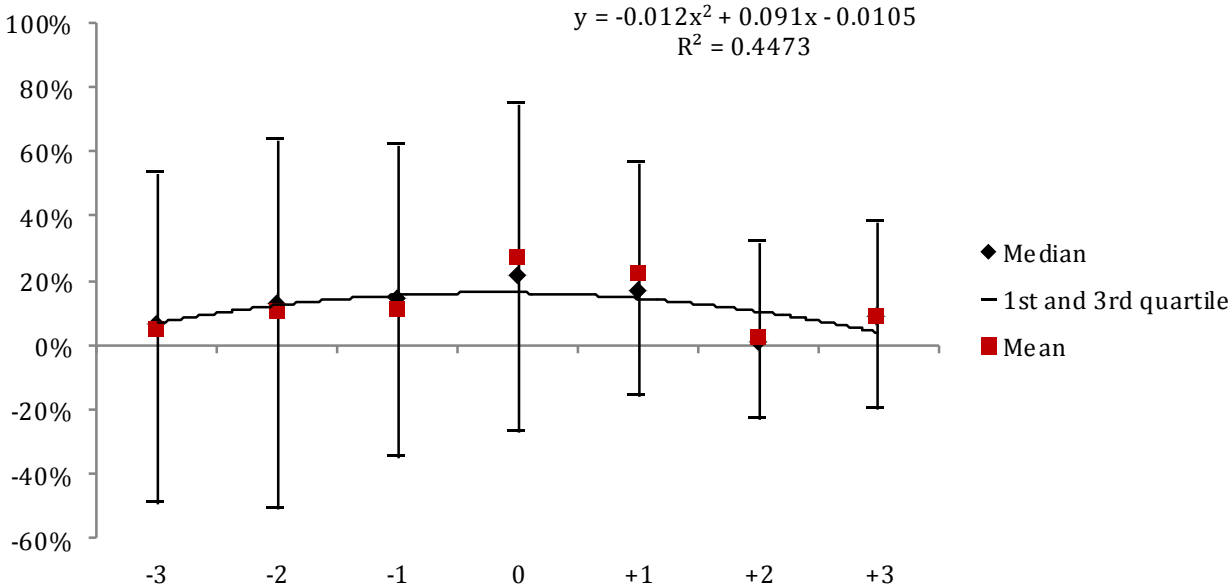
  

	Pre-acquisition	Post-acquisition
-3/+3 Mean	9%	11%
-3/+3 Median	12%	9%

Panel B: Regression results

$\text{Net Financial Position} = 0.106 - 0.007 t$ <p>(0.034) (-0.165)</p>	$R^2 < 0.00, F_{\text{stat}} = 0.027$
---	---------------------------------------

**Chart 7: Acquirer’s mean and median Industry adjusted Net Financial Position**



**Table 12: Target’s mean and median Industry adjusted Net Financial Position**

Panel A: Target pre- and post-acquisition performance

Year relative to acquisition	-3	-2	-1	0	+1	+2	+3
Mean	-18%	-2%	-6%	-13%	8%	2%	0%
1° quartile	-61%	-49%	-37%	-77%	-32%	-35%	-42%
Median	-2%	9%	1%	-13%	12%	2%	0%
3° quartile	33%	45%	43%	34%	52%	46%	34%

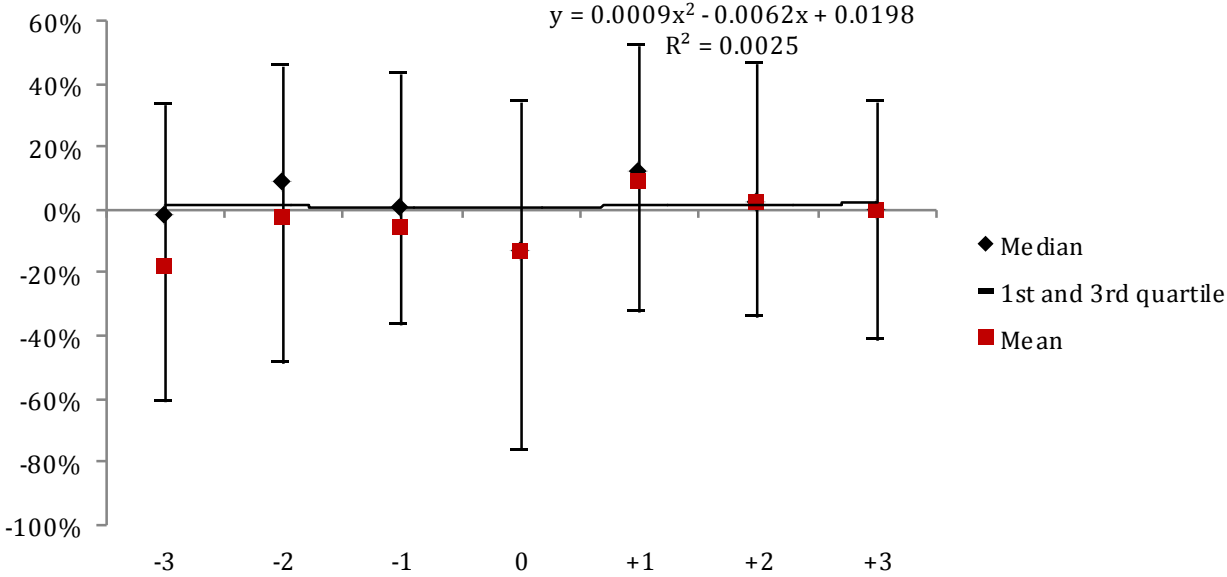
  

	Pre-acquisition	Post-acquisition
-3/+3 Mean	-9%	4%
-3/+3 Median	1%	2%

Panel B: Regression results

Net Financial Position = -0.093 + 0.125 t (-2.144) (2.109)	R <sup>2</sup> =0.006, Fstat=4.449
---	------------------------------------

**Chart 8: Target’s mean and median Industry adjusted Net Financial Position**



**Table 13: Acquirer’s mean and median Industry adjusted Operational cash flows**

**Panel A: Acquirer pre- and post-acquisition performance**

Year relative to acquisition	-3	-2	-1	0	+1	+2	+3
Mean	19%	28%	18%	28%	12%	-7%	-4%
1° quartile	-22%	-14%	-27%	-18%	-36%	-53%	-38%
Median	16%	19%	11%	21%	11%	-2%	7%
3° quartile	57%	64%	55%	68%	54%	42%	55%

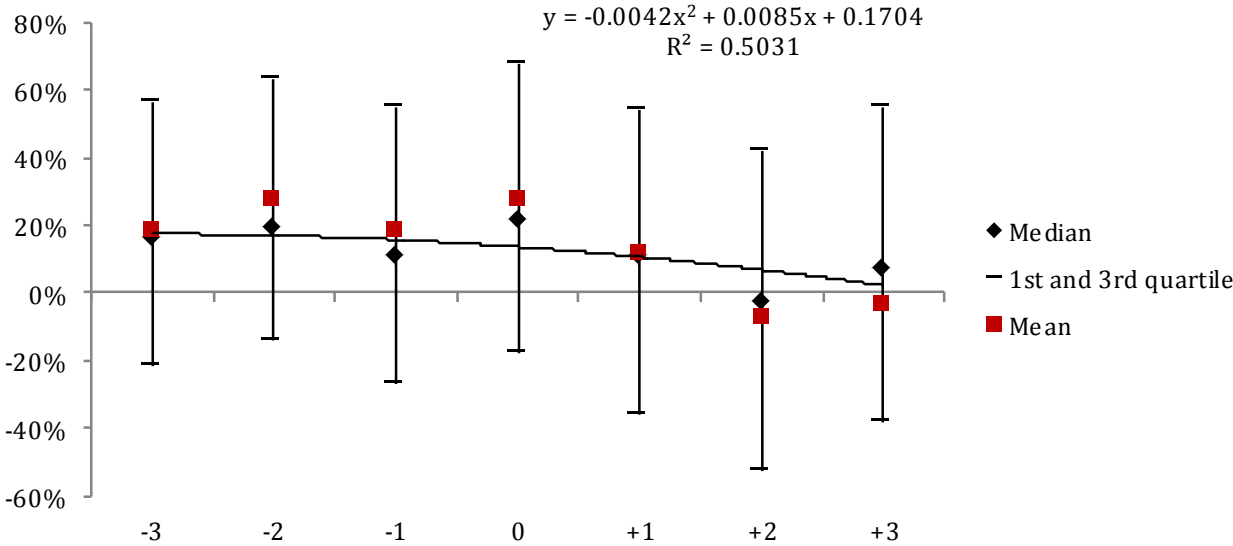
  

	Pre-acquisition	Post-acquisition
-3/+3 Mean	22%	0%
-3/+3 Median	16%	7%

**Panel B: Regression results**

Cash Flow to Firm = 0.214 – 0.216 t (5.625) (-4.278)	$R^2=0.02$ , Fstat=18.304
---	---------------------------

**Chart 9: Acquirer’s mean and median Industry adjusted Operational cash flows**



**Table 14: Target’s mean and median Industry adjusted Operational cash flows**

Panel A: Target pre- and post-acquisition performance

Year relative to acquisition	-3	-2	-1	0	+1	+2	+3
Mean	13%	18%	12%	2%	18%	15%	1%
1° quartile	-27%	-14%	-30%	-44%	-42%	-44%	-51%
Median	13%	14%	6%	5%	7%	9%	9%
3° quartile	61%	59%	52%	48%	67%	77%	71%

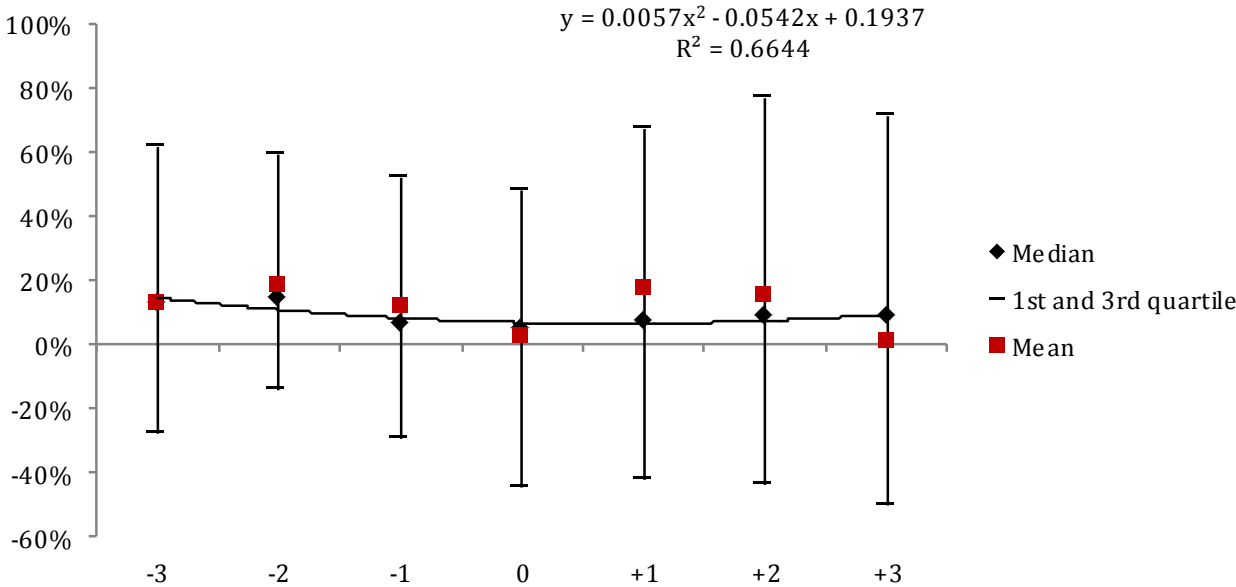
  

	Pre-acquisition	Post-acquisition
-3/+3 Mean	14%	11%
-3/+3 Median	13%	9%

Panel B: Regression results

Cash Flow to Firm = 0.166 – 0.054 t (3.771) (-0.909)	R <sup>2</sup> =0.001, Fstat=0.827
---	------------------------------------

**Chart 10: Target’s mean and median Industry adjusted Operational cash flows**



**Table 15: Acquirer’s mean and median Industry adjusted ROS**

Panel A: Acquirer pre- and post-acquisition performance

Year relative to acquisition	-3	-2	-1	0	+1	+2	+3
Mean	8%	6%	0%	7%	9%	-2%	3%
1° quartile	-27%	-22%	-28%	-26%	-31%	-48%	-39%
Median	0%	-1%	-3%	5%	0%	0%	3%
3° quartile	38%	30%	32%	45%	50%	46%	47%

	Pre-acquisition	Post-acquisition
-3/+3 Mean	5%	3%
-3/+3 Median	-1%	0%

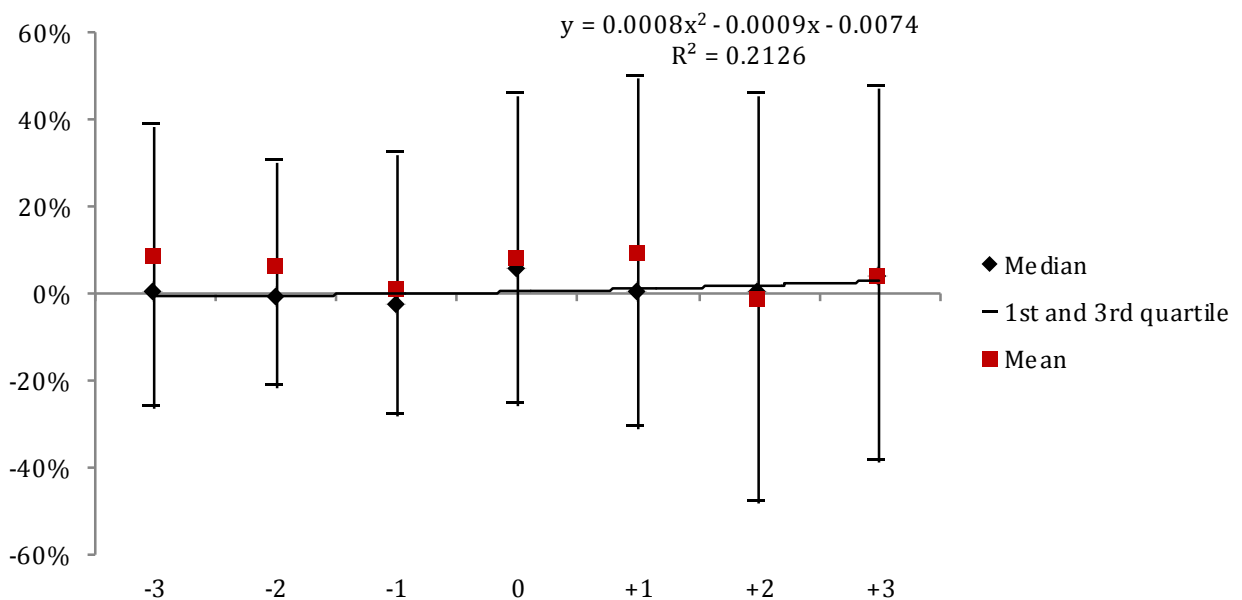
Panel B: Regression results

$$\text{ROS} = 0.021 - 0.007t$$

(0.542) (-0.138)

$$R^2 < 0.00, \text{Fstat} = 0.019$$

**Chart 11: Acquirer’s mean and median Industry adjusted ROS**



**Table 16: Target’s mean and median Industry adjusted ROS**

**Panel A: Target pre- and post-acquisition performance**

Year relative to acquisition	-3	-2	-1	0	+1	+2	+3
Mean	20%	10%	4%	0%	20%	11%	4%
1° quartile	-17%	-27%	-31%	-41%	-30%	-36%	-48%
Median	7%	10%	1%	-4%	7%	9%	8%
3° quartile	53%	39%	41%	28%	67%	63%	64%
	Pre-acquisition			Post-acquisition			
-3/+3 Mean	11%			12%			
-3/+3 Median	7%			8%			

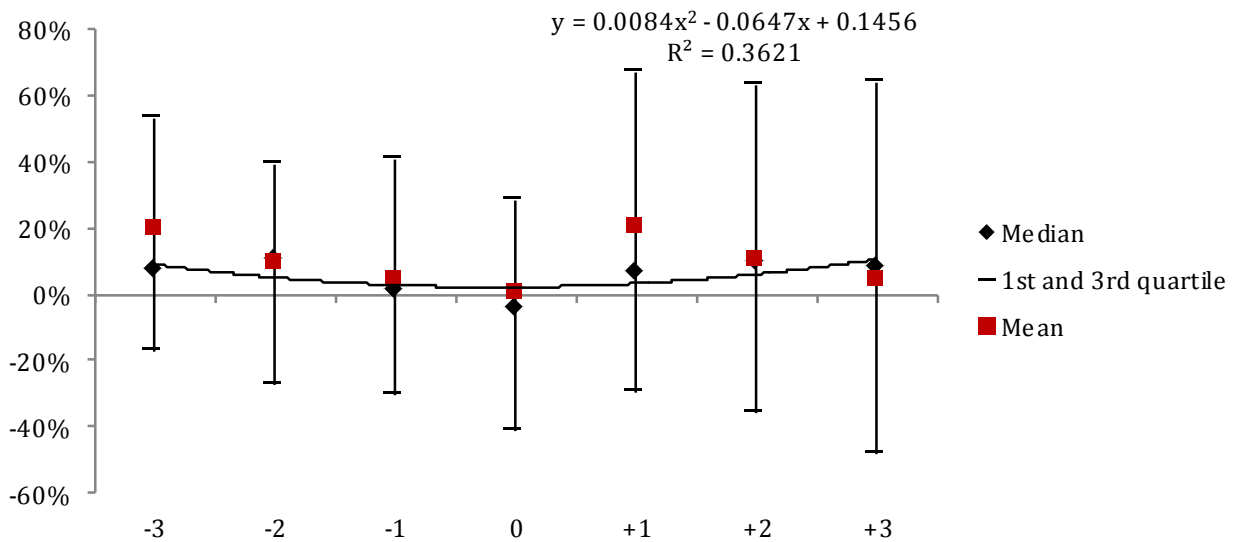
**Panel B: Regression results**

$$\text{ROS} = 0.068 + 0.037 t$$

(1.680) (0.675)

$$R^2=0.001, \text{Fstat}=0.456$$

**Chart 12: Target’s mean and median Industry adjusted ROS**





**Table 17: Acquirer’s mean and median Industry adjusted Costs of Start-up and Expansion**

Panel A: Acquirer pre- and post-acquisition performance

Year relative to acquisition	-3	-2	-1	0	+1	+2	+3
Mean	-32%	-39%	-32%	-24%	-14%	-19%	-27%
1° quartile	-87%	-78%	-67%	-66%	-61%	-70%	-60%
Median	-43%	-35%	-35%	-32%	-24%	-36%	-28%
3° quartile	0%	0%	-3%	-2%	17%	0%	0%

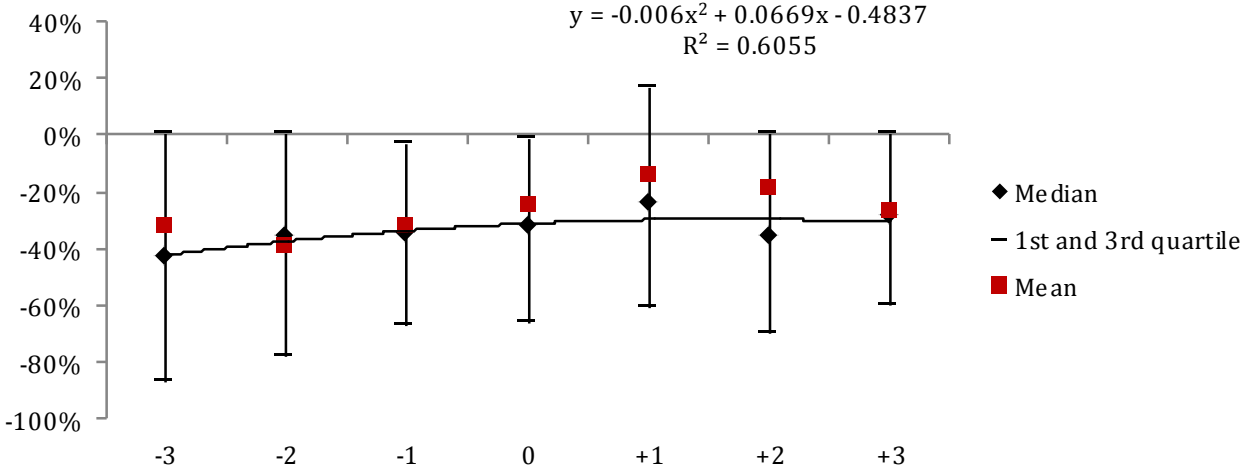
  

	Pre-acquisition	Post-acquisition
-3/+3 Mean	-35%	-20%
-3/+3 Median	-35%	-28%

Panel B: Regression results

Costs of Start-up and Expansion =  $-0.385 + 0.134 t$   $R^2=0.01, Fstat=6.141$   
 (-10.367) (2.478)

**Chart 13: Acquirer’s mean and median Industry adjusted Costs of Start-up and Expansion**



**Table 18: Target’s mean and median Industry adjusted Costs of Start-up and Expansion**

Panel A: Target pre- and post-acquisition performance

Year relative to acquisition	-3	-2	-1	0	+1	+2	+3
Mean	-20%	-19%	-25%	-32%	-18%	-47%	-27%
1° quartile	-51%	-50%	-58%	-63%	-43%	-85%	-55%
Median	-23%	-13%	-24%	-29%	-13%	-36%	-27%
3° quartile	5%	15%	3%	0%	7%	-11%	0%

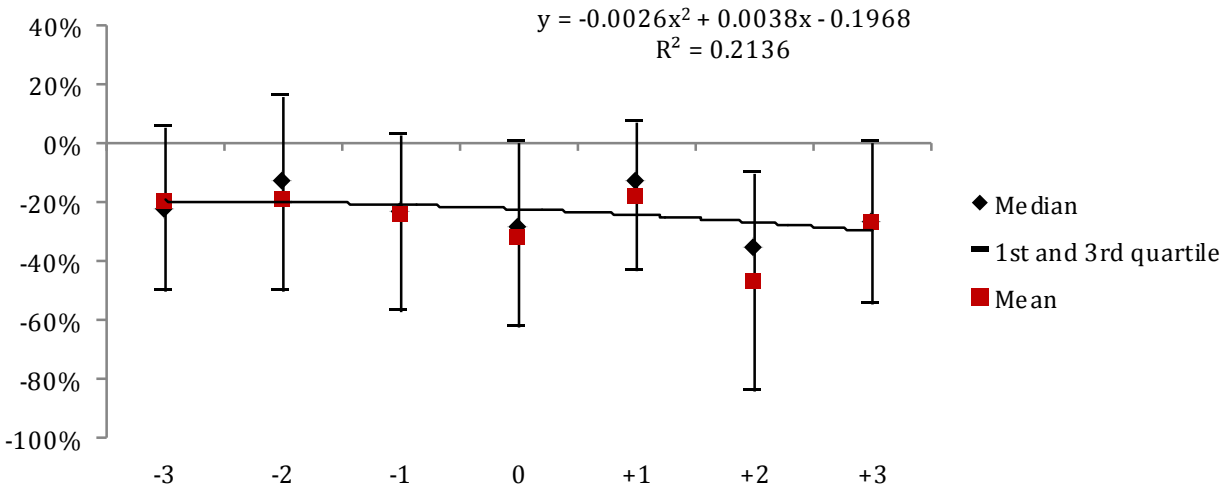
  

	Pre-acquisition	Post-acquisition
-3/+3 Mean	-21%	-31%
-3/+3 Median	-23%	-27%

Panel B: Regression results

Costs of Start-up and Expansion = $-0.278 - 0.050 t$ (-6.673) (-0.844)	$R^2=0.002, Fstat=0.712$
---	--------------------------

**Chart 14: Target’s mean and median Industry adjusted Costs of Start-up and Expansion**



**Table 19: Acquirer’s mean and median Industry adjusted Costs of Research and Advertising**

Panel A: Acquirer pre- and post-acquisition performance

Year relative to acquisition	-3	-2	-1	0	+1	+2	+3
Mean	-47%	-44%	-43%	-21%	-30%	-29%	-26%
1° quartile	-106%	-94%	-96%	-93%	-94%	-87%	-76%
Median	-44%	-40%	-46%	-42%	-50%	-30%	-34%
3° quartile	0%	-5%	-1%	13%	6%	9%	11%

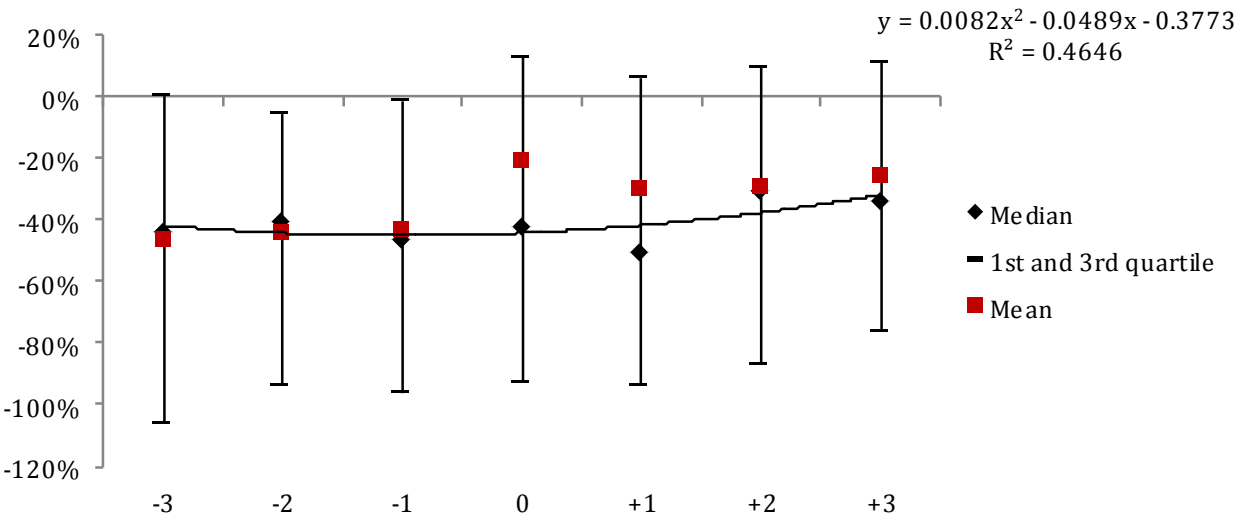
	Pre-acquisition	Post-acquisition
-3/+3 Mean	-45%	-28%
-3/+3 Median	-44%	-34%

Panel B: Regression results

$$\text{Costs of Research and Advertising} = -0.526 + 0.166 t \quad R^2=0.01, \text{Fstat}=5.026$$

(-9.960) (2.242)

**Chart 15: Acquirer’s mean and median Industry adjusted Costs of Research and Advertising**



**Table 20: Target’s mean and median Industry adjusted Costs of Research and Advertising**

Panel A: Target pre- and post-acquisition performance

Year relative to acquisition	-3	-2	-1	0	+1	+2	+3
Mean	-14%	-15%	-20%	-31%	-24%	-21%	-34%
1° quartile	-48%	-46%	-42%	-70%	-60%	-67%	-80%
Median	-14%	-3%	-17%	-27%	-18%	-31%	-26%
3° quartile	10%	22%	1%	1%	5%	22%	18%

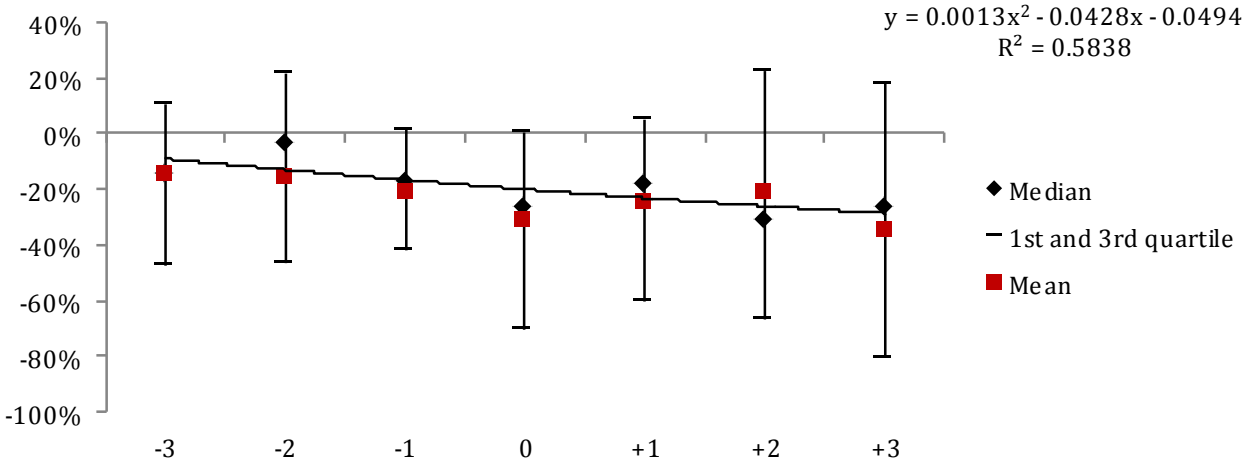
  

	Pre-acquisition	Post-acquisition
-3/+3 Mean	-17%	-27%
-3/+3 Median	-14%	-26%

Panel B: Regression results

Costs of Research and Advertising = -0.261 - 0.023 t R<sup>2</sup>=0.0003, Fstat=0.081  
 (0.057) (0.081)

**Chart 16: Target’s mean and median Industry adjusted Costs of Research and Advertising**



**Table 21: Acquirer’s mean and median Industry adjusted ROI**

**Panel A: Acquirer pre- and post-acquisition performance**

Year relative to acquisition	-3	-2	-1	0	+1	+2	+3
Mean	3%	2%	8%	0%	6%	-2%	7%
1° quartile	-28%	-26%	-21%	-39%	-44%	-48%	-36%
Median	0%	0%	3%	-1%	-3%	0%	0%
3° quartile	41%	24%	42%	45%	48%	48%	52%

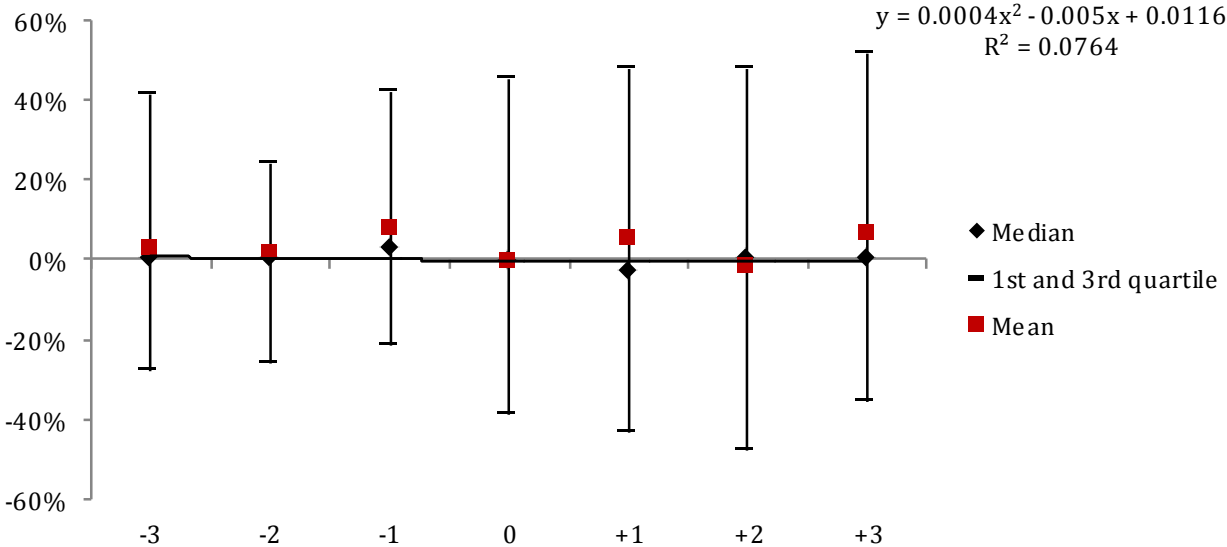
  

	Pre-acquisition	Post-acquisition
-3/+3 Mean	4%	4%
-3/+3 Median	0%	0%

**Panel B: Regression results**

$ROI = 0.021 + 0.006 t$ (0.473) (0.102)	$R^2 < 0.00, Fstat = 0.010$
--	-----------------------------

**Chart 17: Acquirer’s mean and median Industry adjusted ROI**



**Table 22: Target’s mean and median Industry adjusted ROI**

Panel A: Target pre- and post-acquisition performance

Year relative to acquisition	-3	-2	-1	0	+1	+2	+3
Mean	6%	1%	1%	-2%	12%	3%	7%
1° quartile	-23%	-21%	-35%	-44%	-33%	-55%	-56%
Median	3%	8%	0%	-3%	3%	1%	1%
3° quartile	29%	35%	39%	26%	60%	69%	55%

	Pre-acquisition	Post-acquisition
-3/+3 Mean	3%	7%
-3/+3 Median	3%	1%

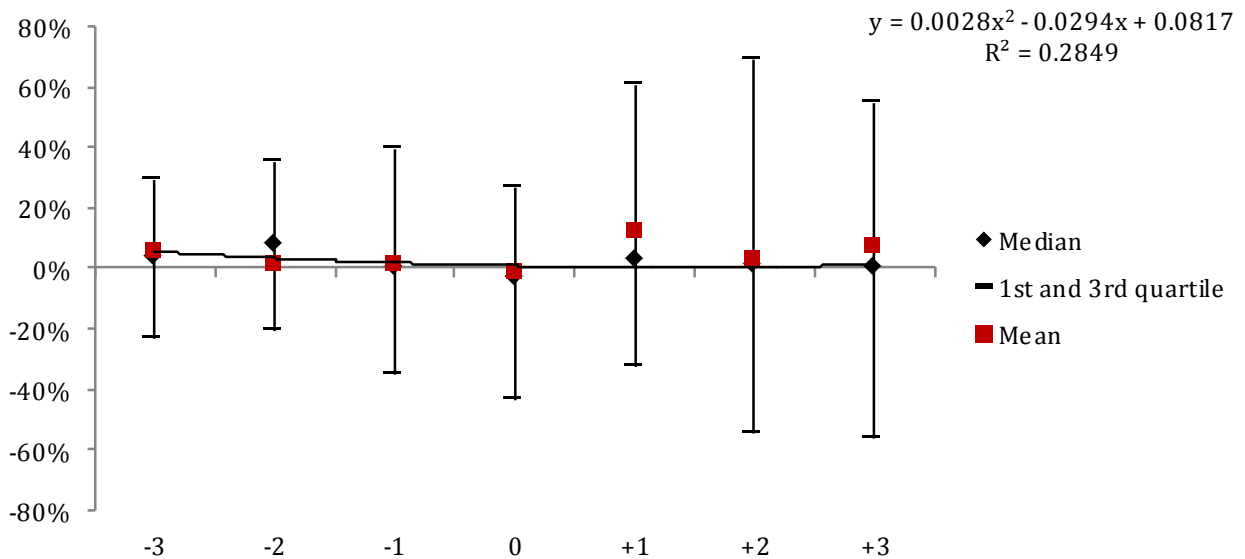
Panel B: Regression results

$$ROI = -0.004 + 0.087 t$$

(-0.076) (1.288)

$$R^2 = 0.003, Fstat = 1.660$$

**Chart 18: Target’s mean and median Industry adjusted ROI**



**Table 23: Acquirer’s mean and median Industry adjusted Number of Employees**

Panel A: Acquirer pre- and post-acquisition performance

Year relative to acquisition	-3	-2	-1	0	+1	+2	+3
Mean	-2%	6%	13%	25%	27%	9%	4%
1° quartile	-17%	-21%	-9%	1%	5%	-5%	-8%
Median	4%	11%	18%	26%	23%	10%	8%
3° quartile	25%	34%	39%	49%	47%	30%	27%

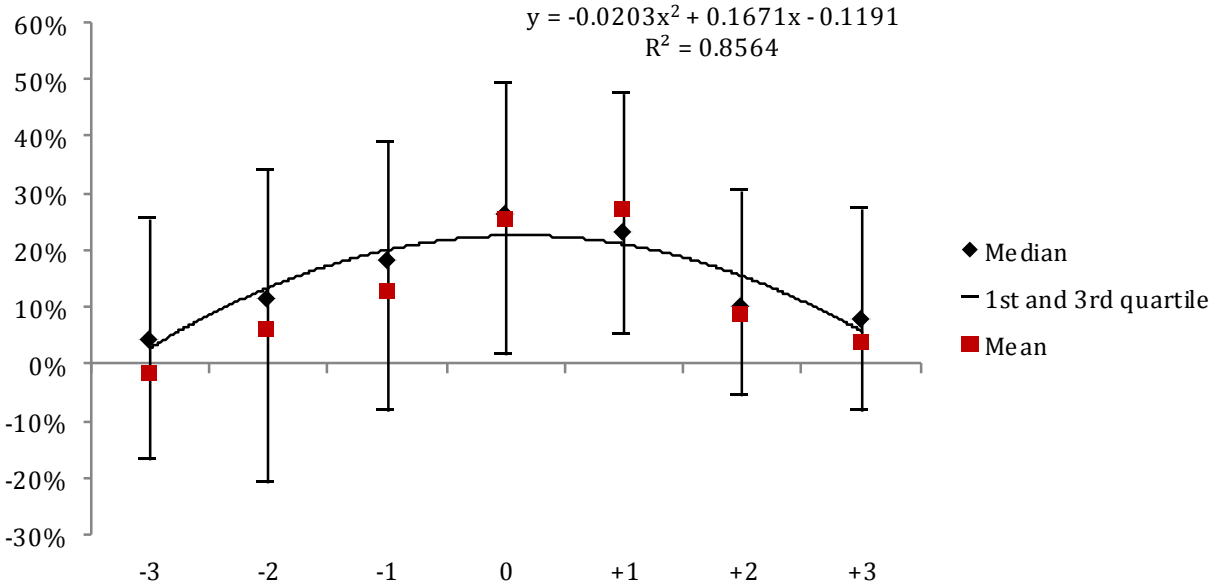
	Pre-acquisition	Post-acquisition
-3/+3 Mean	6%	13%
-3/+3 Median	11%	10%

Panel B: Regression results

$$\text{Number of Employees} = 0.043 + 0.059 t \quad R^2=0.005, Fstat=3.776$$

(1.886) (1.943)

**Chart 19: Acquirer’s mean and median Industry adjusted Number of Employees**



**Table 24: Target’s mean and median Industry adjusted Number of Employees**

Panel A: Target pre- and post-acquisition performance

Year relative to acquisition	-3	-2	-1	0	+1	+2	+3
Mean	-11%	2%	7%	10%	11%	11%	2%
1° quartile	-35%	-10%	-9%	-10%	-7%	-4%	-10%
Median	-3%	8%	14%	15%	16%	11%	9%
3° quartile	14%	28%	32%	32%	31%	29%	26%

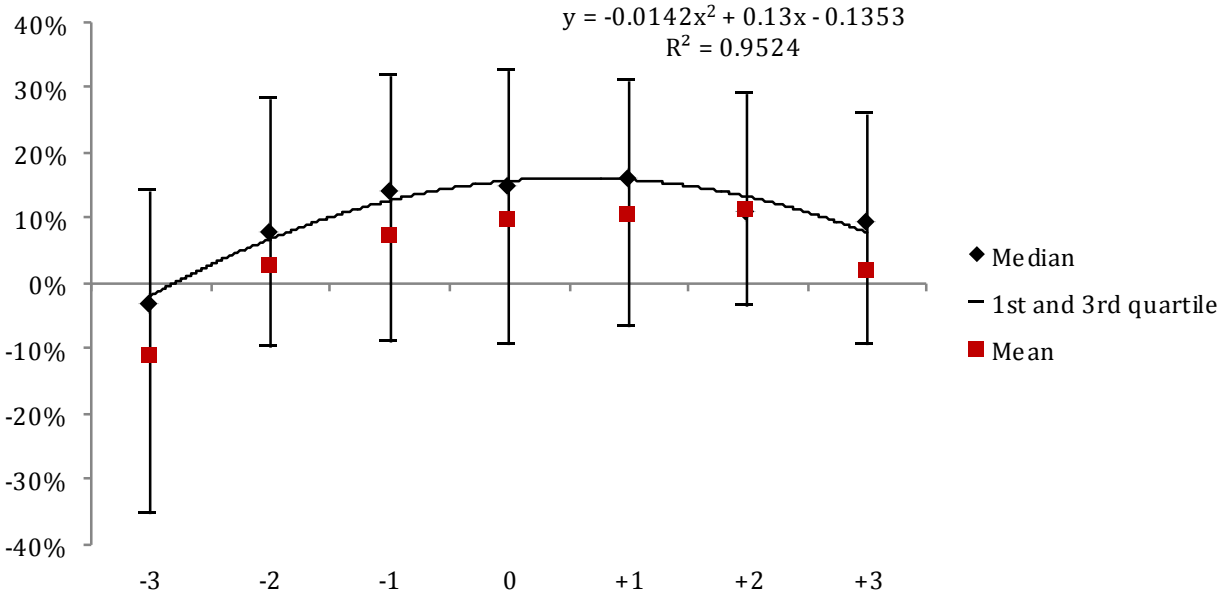
  

	Pre-acquisition	Post-acquisition
-3/+3 Mean	0%	8%
-3/+3 Median	8%	11%

Panel B: Regression results

Number of Employees = -0.042 – 0.072 t (-1.637) (2.047)	$R^2=0.006$ , Fstat=4.190
--	---------------------------

**Chart 20: Target’s mean and median Industry adjusted Number of Employees**





**Table 25: Acquirer’s mean and median Industry adjusted Solvency Ratio**

Panel A: Acquirer pre- and post-acquisition performance

Year relative to acquisition	-3	-2	-1	0	+1	+2	+3
Mean	7%	3%	0%	-7%	-5%	-6%	-4%
1° quartile	-13%	-19%	-18%	-28%	-25%	-20%	-20%
Median	0%	-2%	-3%	-9%	-7%	-4%	-3%
3° quartile	15%	14%	8%	8%	7%	8%	9%

	Pre-acquisition	Post-acquisition
-3/+3 Mean	3%	-5%
-3/+3 Median	-2%	-4%

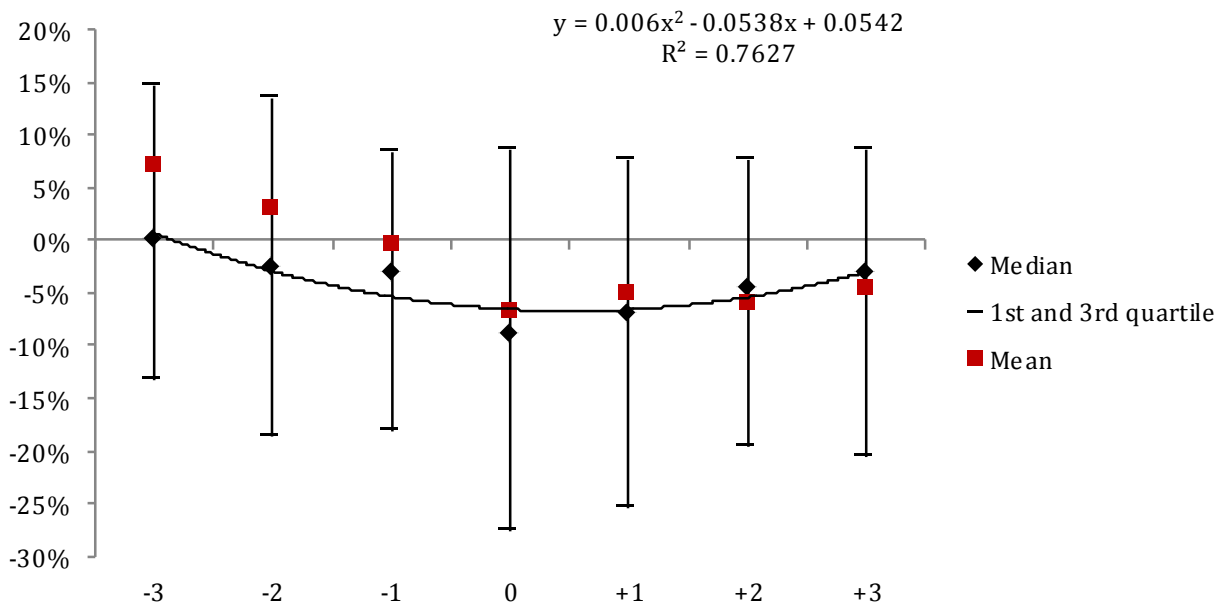
Panel B: Regression results

$$\text{Solvency Ratio} = 0.029 - 0.093 t$$

(1.507) (-3.671)

$$R^2=0.015, F\text{stat}=13.475$$

**Chart 21: Acquirer’s mean and median Industry adjusted Solvency Ratio**



**Table 26: Target’s mean and median Industry adjusted Solvency Ratio**

Panel A: Target pre- and post-acquisition performance

Year relative to acquisition	-3	-2	-1	0	+1	+2	+3
Mean	7%	8%	1%	6%	0%	-4%	3%
1° quartile	-15%	-13%	-20%	-24%	-26%	-19%	-19%
Median	0%	2%	-2%	-1%	-5%	-3%	-2%
3° quartile	13%	21%	17%	23%	18%	11%	15%

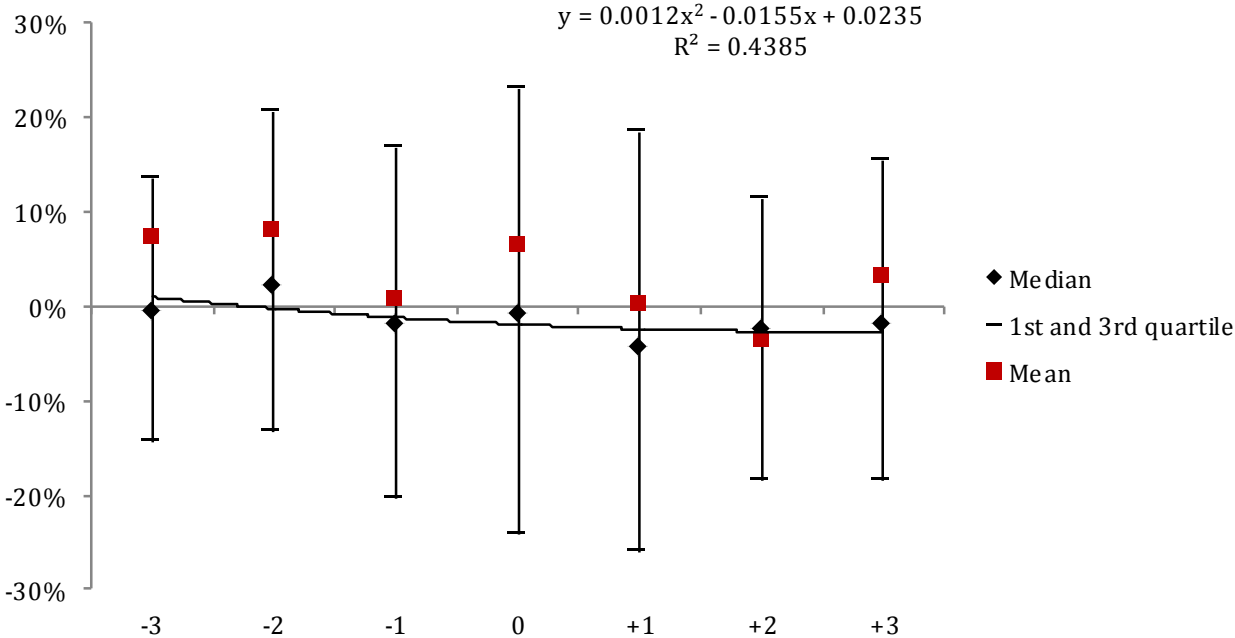
  

	Pre-acquisition	Post-acquisition
-3/+3 Mean	5%	0%
-3/+3 Median	0%	-3%

Panel B: Regression results

$\text{Solvency Ratio} = 0.039 - 0.053 t$ <p>(1.875) (-1.873)</p>	$R^2=0.005, F\text{stat}=3.506$
---	---------------------------------

**Chart 22: Target’s mean and median Industry adjusted Solvency Ratio**



**Table 27: Multivariate Ordinary Least Squares (OLS) Analysis of Acquisition determinants on Long-term Operational cash flow performance**

	MODEL A	MODEL B	MODEL C	MODEL D	MODEL E	MODEL F	MODEL G
Intercept	-0.053 (-1.477)	0.149 (2.409)**	-0.150 (-3.058)***	-0.053 (-1.563)	0.142 (2.944)***	-0.148 (-3.418)***	0.284 (2.441)
SHARE	0.000 (0.743)	0.000 (0.398)	0.000 (0.789)	0.000 (0.755)		0.000 (1.053)	
PAY	-0.009 (-0.497)	-0.097 (-4.412)***	0.051 (1.509)	-0.009 (-0.517)	-0.091 (-5.412)***	0.048 (1.661)	-0.071 (-2.897)*
LIQUID	0.002 (0.083)	0.009 (0.349)	0.057 (1.589)			0.058 (1.796)*	
DIST	0.000 (0.020)	0.001 (0.259)	0.000 (0.009)				
LOG_DEAL	0.005 (1.143)	0.019 (1.923)*	0.005 (0.863)	0.005 (1.187)	0.018 (2.093)**	0.005 (0.867)	0.035 (5.083)**
DEBT_A	0.047 (1.925)*	-0.097 (-1.682)	0.088 (2.326)**	0.048 (2.055)**	-0.098 (-2.202)**	0.086 (2.486)**	-0.531 (-1.643)
DEBT_T	-0.011 (-0.663)	-0.051 (-2.159)**	-0.039 (-1.081)	-0.011 (-0.675)	-0.050 (-2.739)**	-0.036 (-1.182)	-0.175 (-2.063)
CASH_A	-0.140 (-1.995)**	-0.161 (-1.477)	-0.020 (-0.181)	-0.141 (-2.049)**	-0.168 (-1.882)*		-1.650 (-5.673)**
CASH_T	0.141 (3.219)***	0.067 (1.198)	0.023 (0.254)	0.142 (3.422)***	0.076 (2.129)*		0.384 (1.563)
SIZE	0.000 (3.882)	0.000 (0.113)	0.000 (3.245)	0.000 (4.011)		0.000 (3.776)	

SERIAL	0.009 (0.781)	0.018 (1.001)	-0.012 (-0.788)	0.009 (0.810)	0.015 (1.095)	-0.013 (-0.889)	0.116 (3.714)*
DIV	0.008 (0.552)	-0.022 (-1.150)	0.032 (1.358)	0.008 (0.556)	-0.021 (-1.290)	0.028 (1.646)	-0.160 (-1.960)
HOR	-0.012 (-1.072)	-0.007 (-0.428)	0.004 (0.226)	-0.012 (-1.113)	-0.010 (-0.825)		0.040 (1.832)
SALES	0.000 (0.064)	0.000 (2.236)	0.018 (1.971)*		0.000 (2.522)	0.018 (2.120)**	0.046 (3.457)*
SQR_ SALES							0.000 (-1.782)
SQR_ DEBTA							0.230 (1.038)
SQR_ DEBTT							0.120 (1.972)
SQR_ CASHA							5.272 (4.956)*
SQR_ CASHT							1.14 (1.903)
SQR_ SIZE							0.000 (2.438)
F-statistic	2.648***	4.727***	2.946***	3.489***	7.985***	4.641***	13.96***
Adjusted R <sup>2</sup>	0.191	0.426	0.382	0.218	0.483	0.453	0.462

The t-values for the regression estimates are given in parentheses.

\* Significantly different from zero at the 10% level, using a two-tailed test. \*\* Significantly different from zero at the 5% level, using a two-tailed test. \*\*\* Significantly different from zero at the 1% level, using a two-tailed test

**Table 28: Multivariate Ordinary Least Squares (OLS) determinant and models descriptions**

		<b>Description</b>
<b>Models</b>		
MODEL A	This model includes all the acquisitions of the sample complete of data for each independent variable.	
MODEL B	This model compared to Model A includes only acquisitions belonging to Services industries. Services consist of Business services, Media, Tourism, art and Entertainment	
MODEL C	This model compared to Model A includes only acquisitions belonging to Infrastructure industries. Infrastructures consist of Construction, Energy, Mechanical Industry, ICT and Logistics sectors	
MODEL D	This model includes all the acquisitions of the sample complete of data for each independent variable, and compared to Model A it includes the best match of independent variables for the overall sample.	
MODEL E	This model compared to Model D includes only acquisitions belonging to Services industries. Services consist of Business services, Media, Tourism, art and Entertainment.	
MODEL F	This model compared to Model D includes only acquisitions belonging to Infrastructure industries. Infrastructures consist of Construction, Energy, Mechanical Industry, ICT and Logistics sectors.	
MODEL G	This model includes the squared variables added to Model E	
<b>Determinants</b>		<b>Unit of measure</b>
LOG_DEAL	DEAL is the deal size measured as the natural logarithm of the offer value (million Euro) of the transaction	Adimensional

DEBT_A	DEBT_A is calculated by dividing Total Debt by the sum of Total Debt and Equity for the acquirer. It measures what percentage of equity and debt the acquiring firm is using to finance its assets.	Percentage
DEBT_T	DEBT_T is calculated by dividing Total Debt by the sum of Total Debt and Equity for the target. It measures what percentage of equity and debt the target company is using to finance its assets.	Percentage
CASH_A	CASH_A is calculated by dividing Total Cash by the Total Asset for the acquirer. It measures the percentage of the acquirer's assets held in cash or marketable securities.	Percentage
CASH_T	CASH_T is calculated by dividing Total Cash by the Total Asset for the target. It measures the percentage of the target's assets held in cash or marketable securities.	Percentage
SERIAL	SERIAL is a dummy variable which equals one if the acquirer completed more than two acquisitions in the past, and zero otherwise.	Coded=1 if the bidder accomplished more than 2 acquisitions, else=0
DIV	DIV is a dummy variable which equals one if the deal was decreasing the acquirer's corporate focus, and zero otherwise.	Coded=1 if the acquisition decreases corporate focus, else=0
HOR	HOR is a dummy variable which equals one if the deal horizontal, and zero otherwise.	Coded=1 if the acquisition is horizontal, else=0
DIST	DIST measure the distance between the registered headquarters of acquirer and target.	Coded=4 if the bidder and target are located in the same province, 3 in the same region, 2 in close regions, 1 otherwise
LIQUID	LIQUID reports if the target was acquired in liquidation status.	Coded=1 if the target was in liquidation status, else=0

PAY	PAY reports the method of payment.	Coded=1 if the method of payment was by cash, else=0
SHARES	SHARES measures the percentage of the target's shares have been acquired.	Percentage
SALES	SALES is measured as the average of the industry adjusted growth of Revenues from Sales reported from the acquirer in the three years preceding the acquisition effective date (year -1, year -2, year -3).	Percentage

---